



Certificate of Compliance

Certificate: 1030930 **Master Contract:** 164196 (LR 7189-549)

Project: 80011497 **Date Issued:** 2019-08-09

Issued To: **TE Connectivity Corporation**
2901 Fulling Mill Road
Middletown, Pennsylvania, 17057-3163
United States

Attention: Larry Hall

The products listed below are eligible to bear the CSA Mark shown

Issued by: *Minoru Morimoto*
Minoru Morimoto, C.E.T.



PRODUCTS

CLASS - C623301 - RECEPTACLES Attachment Plug Type and Plugs

Special-use connectors "COMMERCIAL MATE-N-LOK" Series 350XXX, 380XXX, 770000, 829XXX, 15865XX, 2178XXX, rated 13A (15-pole, No 14 AWG), 6.5A (15-pole, No 20 AWG), 7A max, 600V max.

Special-use connectors "MATE-N-LOK or UNIVERSAL MATE-N-LOK" Series 60XXX, 61XXX, 350XXX, 380XXX, 480XXX, 640XXX, 641XXX, 643XXX, 770XXX, 794XXX, 829XXX, 926XXX, 927XXX, 969XXX, 1241XXX, 1586XXX, 1644XXX, 1703XXX, 1863XXX, 1877XXX, 1950XXX, 2029XXX, 1969XXX, Cat Nos 966519-3, 2312156, 2312157, 2825081-1, rated 13A (15-pole, No 14 AWG), 6.5A (15-pole, No 20 AWG), 7A max, 600V max.

Special-use connectors "UNIVERSAL MATE-N-LOK" Series 794XXX, rated 26A (4-pole, No 10 AWG), 23A (4-pole, No 12 AWG), 22A (6-pole, No 10 AWG), 20A (6-pole, No 12 AWG), 7A max, 600V max.

Special-use connectors "UNIVERSAL MATE-N-LOK" Series 1604XXX, rated 15A (No 10 AWG), 600V max.



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Special-use connectors "UNIVERSAL MATE-N-LOK II" Cat Nos 193839, 194002, 194009, 194010, 194012, 194013, 194014, 194017, 194018, 194234, 194260, 194261, 194269, 350945, 796961, rated 22A max, 600V and Series 770XXX, rated 7A max, 600V max.

Special-use connectors "UNIVERSAL MATE-N-LOK" Series 350777, 350778, rated 2.0A, 600Vac current interruption.

APPLICABLE REQUIREMENTS

CSA Std. C22.2 No. 182.3-16, 2nd Ed - Special Use Attachment Plugs, Receptacles, and Connectors



Supplement to Certificate of Compliance

Certificate: 1030930

Master Contract: 164196

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80011497	2019-08-09	Add Cat No 770262-4.
70156162	2017-10-24	Add "UNIVERSAL MATE-N-LOK" Cat Nos 350434-4, 350711-4, 350732-4, 350827-4, 3-350944-0, 3-350945-0, 640466-3, 640467-3, 640583-3, 640584-3, 3-643230-0, 3-643232-0, 3-643234-0, 3-643236-0, 770111-1, 770143-1, 966519-3, 1586394-1, 1586395-1, 1586680-1, 1586680-5.
000070155540	2017-09-15	One alternate body material.
000070143217	2017-06-20	Add Series 350736-1, 350865-1, 350866-1, 926307-1, 770023-1, 770025-1, 770026-1, 770028-1, 770029-1.
000070143056	2017-06-14	Add Series 2312156, 2312157.
000070070692	2016-04-13	Add Cat Nos 643424-3.
000070063977	2016-02-19	Add Cat Nos 1586866-1, 1586869-1, 1586872-1, 1586876-1, 1586879-1, 1586889-1, 1586890-1, 1586893-1, 1586895-1, 1586896-1, 1586898-1, 1586899-1, 1586936-1, 1586937-1, 1586939-1, 1586953-1, 1586955-1, 1586958-1, 1586963-1, 1586968-1, 1586979-1, 1586984-1, 1586998-1, 1969795-1, 1969796-1, 1969797-1, 1969798-1, 1969799-1, 1969800-1, 1969801-1, 1969802-1, 1969803-1, 1969804-1, 1969805-1, 1969806-1, 1969807-1, 1969808-1, 1969809-1, 1969810-1, 1969811-1, 1969812-1, 1969813-1, 1969814-1, 1969815-1, 1969816-1, 1969817-1, 1969818-1, 1969830-1, 770262-3; one alternate body material.
000070059209	2016-01-20	Add Cat No 2825081-1.
000070019258	2015-02-10	Add Series 926298-1, 926299-1, 926300-1, 926301-1, 926302-1, 926308-1, 926309-1, 926647-1, 969326-1. LR 7189-549, 1030930. GPS12518.
0002692124	2014-01-08	Add "UNIVERSAL MATE-N-LOK" Series 926309, 927231, 1586892, 1644055, 170306X, 186300X, 2178XXX and one alternate body material.



0002594734	2013-03-12	Add "UNIVERSAL MATE-N-LOK" Series 2178473, 2178474.
0002496430	2012-02-29	Series 794911, 794912 alternate pin and sockets.
0002405832	2011-03-09	Add Cat Nos 2029314-1, 2029315-1 and one alternate material Stanyl TW341 with 3% red colourant CNY-12050 by Clariant (item 1ad).
0002266810	2010-01-25	Add Series 1950041 and alternate material Zytel HTNFR52G30BL(+) (item 1ac).
0002248382	2009-12-01	One alternate body material Technyl A 50H1 (r3) (item 1f).
0002204295	2009-08-10	Add Series Nos 796961.
0002151147	2009-03-09	Add Series 926XXX, 927231, 1241809, 1586860, 1644055, 18630XX.
0002095339	2008-10-06	Add Series 350945, 829182, 829183, 829184, 829185.
0002066498	2008-09-15	Add Series 158684X, 158685X, 1586887, 1586952.
0002044513	2008-05-30	Add Series 194234, 194260, 194261, 194269, 350950.
0002042196	2008-05-09	Add Series 158635X, 202900X.
0002027486	2008-04-04	Delete "UNIVERSAL MATE-N-LOK" Series 1877829, 1877830, 1954495, 1954496, 1954564, 1954565, 1954566, 1954759, 1954760 (Part B).
0001981024	2007-11-23	Alternate male pin Part No 1954443 (item 2ag).
0001980122	2007-11-19	Add Cat Nos 1703061, 1703062.
0001974460	2007-11-12	Add Cat No 770827.
0001935084	2007-09-12	Series 350777, 350778, 1877829, 1877830, 1954495, 1954496, 1954563 to 1954566, 1954759, 1954760 rating increase to 2.0A, 600Vac current interruption.
0001934852	2007-07-31	Three new contacts Part Nos 350690, 350706, 640347.
0001915904	2007-05-23	Add "UNIVERSAL MATE-N-LOK" Series 1877829, 1877830, 1954495, 1954496, 1954563, 1954564, 1954565, 1954566, 1954759, 1954760 (Part B).
0001903128	2007-04-18	Cat No 794714 alternate keyed construction.
0001891103	2007-03-09	Add "UNIVERSAL MATE-N-LOK" Cat Nos 1586661-1, 1586662-1, 1586663-1, 1586664-1, 1586665-1, 1586668-1, 1586669-1.
0001878703	2007-02-09	Add "MATE-N-LOK" Cat Nos 794116, 794117, 794118, 794412, 794413.



0001875833	2007-01-29	Series 350777, 350778 two alternate contacts Part Nos 350699, 350851.
0001873542	2007-01-19	Alternate body material Stanyl TE351 (item 1ab).
0001837933	2006-10-16	Two alternate body materials Stanyl TW341 and Technyl A 205F(r4) (items 1z, 1aa).
0001813775	2006-08-14	Add "Commercial Mate-N-Lok" Series 15865XX.
0001790186	2006-06-28	Series 350777, 350778 add a 1.35A, 480Vac current interruption rating.
0001791643	2006-06-02	Add Cat No 1877788.
0001789509	2006-05-02	Add Cat No 1586719 and alternate body material Technyl B 50H1(r1) (item 1y).
0001762049	2006-02-20	Alternate body material (item 1x).
0001696192	2005-07-29	Add connectors Cat Nos 1604210, 1604254, 1604256, 1604941 and alternate body material (item 1u).
0001600823	2005-03-14	Add 82 Header Cat Nos to Series "UNIVERSAL MATE-N-LOK" and add alternate body material Akulon K225-KS (item 1v, Part A).
0001562276	2004-06-10	Add "UNIVERSAL MATE-N-LOK" Cat Nos 1586377-1, 1586378-1, 1586379-1, 1586380-1, 1586436-1, 1586437-1
0001545501	2004-05-05	Add Cat No 794715-3.
0001537696	2004-04-05	Alternate male pin Part No 1586096 (item 2g).
0001532538	2004-03-09	Alternate body material (item 1u) and add Cat No 794716-3.
0001399793	2003-01-15	Increase current rating of "MATE-N-LOK or UNIVERSAL MATE-N-LOK" to 13A max.



Descriptive Report and Test Results

MASTER CONTRACT: 164196
REPORT: 1030930
PROJECT: 80011497

Edition 1: August 25, 1994; Application No LR 7189-549 - Toronto
Issued by V.O. Roslin, P. Eng.

Edition 11: November 30, 1999; Project 1030930 - Toronto
Issued by B. Wright, Technologist

Report Reissued
Figure Replaced: Fig 1
Figure Added: Fig 383

Edition 69: June 21, 2017; Project 70143217 - Toronto
Issued by A. Orovcaneec; Reviewed by Michael Chung

Report Reissued
Figures Added: Fig 446 to 454

Edition 70: September 15, 2017; Project 70155540 - Toronto
Issued by Michael Chung

Report Reissued

Edition 71: October 24, 2017; Project 70156162 - Toronto
Issued by Mike W. Gryschuk, C.E.T.

Report Reissued
Figures Added: Fig 455

Edition 72: August 9, 2019; Project 80011497 - Toronto
Issued by Minoru Morimoto, C.E.T.

Report pages reissued
Figures Added: Fig 456

Contents: Certificate of Compliance - Pages 1 to 2
Supplement to Certificate of Compliance - Pages 1 to 4
Description and Tests - Pages 1 to 26
Figures - Figs 1 to 456 (electronically on file)
Appendices - Appendix A (1 page - Main Files)

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PRODUCTS

CLASS 6233 01 - RECEPTACLES - Attachment Plug Type and Plugs

Special-use connectors "COMMERCIAL MATE-N-LOK" Series 350XXX, 380XXX, 770000, 829XXX, 15865XX, 2178XXX, rated 13A (15-pole, No 14 AWG), 6.5A (15-pole, No 20 AWG), 7A max, 600V max.

Special-use connectors "MATE-N-LOK or UNIVERSAL MATE-N-LOK" Series 60XXX, 61XXX, 350XXX, 380XXX, 480XXX, 640XXX, 641XXX, 643XXX, 770XXX, 794XXX, 829XXX, 926XXX, 927XXX, 969XXX, 1241XXX, 1586XXX, 1644XXX, 1703XXX, 1863XXX, 1877XXX, 1950XXX, 2029XXX, 1969XXX, Cat Nos 966519-3, 2312156, 2312157, 2825081-1, rated 13A (15-pole, No 14 AWG), 6.5A (15-pole, No 20 AWG), 7A max, 600V max.

Special-use connectors "UNIVERSAL MATE-N-LOK" Series 794XXX, rated 26A (4-pole, No 10 AWG), 23A (4-pole, No 12 AWG), 22A (6-pole, No 10 AWG), 20A (6-pole, No 12 AWG), 7A max, 600V max.

Special-use connectors "UNIVERSAL MATE-N-LOK" Series 1604XXX, rated 15A (No 10 AWG), 600V max.

Special-use connectors "UNIVERSAL MATE-N-LOK II" Cat Nos 193839, 194002, 194009, 194010, 194012, 194013, 194014, 194017, 194018, 194234, 194260, 194261, 194269, 350945, 796961, rated 22A max, 600V and Series 770XXX, rated 7A max, 600V max.

Special-use connectors "UNIVERSAL MATE-N-LOK" Series 350777, 350778, rated 2.0A, 600Vac current interruption.

APPLICABLE REQUIREMENTS

CSA Std. C22.2 No. 182.3-M1987, 1st Ed - Special Use Attachment Plugs, Receptacles, and Connectors

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown without an indicator for Canada only (indicating that products have been manufactured to the requirements of Canadian Standards).

The Submitter's name ("TYCO")/tradenname ("AMP")/trademark/file ("164196" or "LR 7189") and the CSA Mark are permanently ink-stamped, labeled, etc on each device.

The Submitter's identification, the CSA Mark, the Cat No, the electrical rating and per the note below the following (or equivalent) statements: "CAUTION: NOT FOR INTERRUPTING CURRENT" and "ATTENTION: NE PAS UTILISER POUR COUPER LE COURANT" are permanently marked on each device or in or on the smallest unit container or carton.

Series 350777, 350778 connectors have a 2.0A, 600Vac current interruption rating, therefore do not require the cautionary not for interrupting current markings and may be also marked "CURRENT INTERRUPTION" (or equivalent) on each device or smallest carton (if desired).

The current and voltage may be marked at a lower value than the rated value.

ALTERATIONS

See "Markings" above.

FACTORY TESTS

None.

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

1. Component descriptions marked with either the "(INT)" or "(INT*)" identifiers may be substituted with other components providing the requirements specified under the notes in the "Description" are complied with (reference only).

COMPONENT SPECIAL PICKUP

1. Component descriptions marked with the identifier "(CT)" are subject to annual pickup and Conformity Testing.

DESCRIPTION

Notes:

1. Component Substitution
 - a) Critical components (those identified by mfr name, cat no), which are NOT identified with either "INT" or "INT*" are not eligible for substitution without evaluation and report updating
 - b) The term "INT" means a "Certified" and/or "Listed" (or a "Recognized" and/or "Accepted") component may be replaced by one "Certified" and/or "Listed" by another certification organization accredited by the appropriate accreditation body or scheme requirements to the correct standard, for the same application; providing the applicable country identifiers are included and requirements in item "d" below are complied with.
 - c) The Term "(INT*)" means a "Recognized" and/or "Accepted" component may be replaced by a component that is CSA Certified. The applicable country identifiers shall be included, the requirements in item "d" below as well as any "conditions of suitability" for the component (as recorded in this descriptive report) shall be complied with;
 - d) Components which have been substituted, must be of an equivalent rating, configuration (size, orientation, mounting) and the applicable minimum creepage and clearance distances are to be maintained from live parts to bonded metal parts and secondary parts.
 - e) Substitution of a "Certified" and/or "Listed" component with a component that is "Recognized" or "Accepted" is not permitted without evaluation and report updating.
 - f) Substitution of a "Recognized" and/or "Accepted" component by one that is not CSA Certified is not permitted without a proper evaluation as well as a report update because the Conditions of Acceptance of the original component may be different than the Conditions of Acceptance of the substitute component.

Conditions of Acceptability:

1. Supplied only to manufacturers, as components, for the assembly of Certified electrical equipment, where the acceptability of the suitability of the combination in the end use is determined by CSA International.
2. Not for interrupting current, except for Series 350777, 350778 rated 2.0A, 600Vac.
3. Prefixes and suffixes maybe added to denote non-electrical variations.
4. Connectors using pins P/N 193841 and sockets P/N 193842 are de-rated to 16A max.
5. "Mate-N-Lok II, Commercial Mate-N-Lok and Universal Mate-N-Lok" have a min 6.35mm pitch.
6. "UNIVERSAL MATE-N-LOK" connectors for Current Interruption (Part B) require only body material: Technyl B 50H1(r1), 0-50% Re grind by Rhodia (item 1y).

Note: This Report supersedes Reports LR 7189-493, LR 7189-381 and LR 7189-77 (Sub-Report LR 16455-98).

Part A - "MATE-N-LOK II" or "COMMERCIAL MATE-N-LOK" or "UNIVERSAL MATE-N-LOK"

General: These hermaphroditic devices are the same as Certified in LR 7189-77 (Sub-Reports -79, -64, -38, -28), except for alternate body materials (item 1). "MATE-N-LOK II" Series 770XXX have the same pitch, ratings, material and contacts as "MATE-N-LOK" Series 770XXX.

████████████████████ and contacts Part Nos 350218, 350536, 350699 and 350851.

The Cat Nos listed below are similar to Certified Cat Nos, in this Report, except as noted.

<u>Series</u>	<u>Figure</u>	<u>Similar Cat No</u>	<u>Similar Fig</u>	<u>Description, Difference</u>
194234	336	194010	-	4-pole, lubricated contacts
194260	337	194002	-	6-pole, lubricated contacts
194261	338	194017	-	3-pole, lubricated contacts
194269	339	194009	-	2-pole, lubricated contacts
350434-4	163	350434-2	163	15-pole, lead free solder tails
350711-4	155	350711-4	155	6-pole, lead free solder tails
350732-4	163	350732-2	163	6-pole, lead free solder tails
350736-1	446	1863007	379	15-pole, body material
350759-3, -4, -5	317	350759	33	2-pole improved drawing
350761-3, -4, -5	318	350761	33	4-pole improved drawing
350763-3, -4, -5	319	350763	33	9-pole improved drawing
350777	277	350777	49	Improved drawing
350778	278	350778	49	Improved drawing
350827-4	357	350827-2	357	6-pole, lead free solder tails
350865-1	447	1863011	380	1-pole plug, body material
350866-1	448	1586843	342	Body material
350922	271	-	-	Male pin, Nos 10-12 AWG
350923	272	-	-	Fem socket, Nos 10-12 AWG
350942, etc	156	-	-	2- to 8-poles M & F, contacts
350943	389	-	156	Improved drawing
3-350944-0	276	2-350944-0	276	4-pole, lead free solder tails
3-350945-0	341	2-350945-0	341	5-pole, lead free solder tails
350946	326	193839	-	5-pole, lubricated contacts
640466-3	155	640466-2	155	5-pole, lead free solder tails
640467-3	157	640467-2	157	5-pole, lead free solder tails
640583-3	163	640583-3	163	6-pole, lead free solder tails
640584-3	163	640584-2	163	8-pole, lead free solder tails
3-643230-0	163	3-643230-2	163	4-pole, lead free solder tails
3-643232-0	163	3-643232-2	163	
3-643234-0	163	3-643234-2	163	6-pole, lead free solder tails
3-643236-0	163	3-643236-2	163	8-pole, lead free solder tails
643424-3	443	643424-1	157	6-pole, plating material
770023-1	454	770043-1/770044-1	98/99	Plug Housing Kit
770025-1	449	770047-1/770048-1	102/103	Cap Housing Kit
770026-1	450	770049-1/770050-1	104/105	Cap Housing Kit
770028-1	451	770053-1/770054-1	108/109	Cap Housing Kit
770029-1	452	770055-1/770056-1	110/111	Cap Housing Kit
770143-1	180	641825-1	-	8-pole, lead free solder tails
770111-1		640466-1	155	5-pole, lead free solder tails
770262-3	394	1586869-1	400	6-pole, body material
770262-4	456	770262-3	394	Body material, polarized
770827	330	480424	38	Body material, both 4-poles

<u>Series</u>	<u>Figure</u>	<u>Similar Cat No</u>	<u>Similar Fig</u>	<u>Description, Difference</u>
794116	297	-	-	4-pole
794117	298	-	-	4-pole
794118	299	-	-	4-pole
794412	300	-	-	3-pole
794413	301	-	-	3-pole
794714	52	-	-	Keyed construction
794715	53	-	-	-
794716	57	-	-	-
794911	164	-	-	6-pole plug
794912	165	-	-	6-pole cap
794920-1	177	640901-1	157	Polarized
796961-1	383	193839-1	1	4-pole, longer pins, taller
796961-2	383	193839-3	1	4-pole, longer pins, taller
829182	357	350827	357	6-pole, body material
829183	358	350828	358	9-pole, body material
829184	359	350829	359	12-pole, body material
829185	360	350830	360	15-pole, body material
926298-1, -3, -6	361	1586852-1	350	4-pole plug, body material
926299-1, -3, -5	362	-	124	5-pole plug, body material
926300-1	391	1586845-1	180	6-pole plug, body material
926301-1, -3, -5	363	1586845-1	180	8-pole plug, body material
926302-1	392	1586845-1	180	10-pole plug, body material
926305-3, -6	364	1586845-1	344	4-pole cap, body material
926306-3, -5	365	1586845-1	344	5-pole cap, body material, poles
926307-1	453	926308-1, -3, -5	366	6-pole cap, body material
926308-1, -3, -5	366	-	153	8-pole cap, body material
926309-3, -5	367	-	121	10-pole cap, body material
926309-1, -6, -7	367	926309-3	367	10-pole cap, body material
926647-1, -3, -8	368	-	31	15-pole cap, body material
926682-3	369	1586662-1	311	6-pole cap, body material
926682-7	369	926682-3	369	6-pole cap, body material
926683-3, -7	-	1586849-1	348	3-pole cap, body material
927231-3, -5	371	-	31	9-pole cap, body material
927231-6,-7	371	927231-3, -5	371	9-pole cap, body material
966519-3	455-	350711-1	155	6-pole plug, special split pins
969326-1	390	1863016-1	382	3-pole plug, body material

<u>Series</u>	<u>Figure</u>	<u>Similar Cat No</u>	<u>Similar Fig</u>	<u>Description, Difference</u>
1241809-2	372	1586847-1	346	6-pole cap, body material
1586005-1	178	640587-1	156	Moulded blue housing
1586051-1	179	643405-1	155	Packaging
1586052-1	180	641825-1	155	Packaging
1586065-1	167	-	-	Fem socket, Nos 10-12 AWG
1586076-1	181	350428-1	32	No drain holes
1586077-1	182	350429-1	32	No drain holes
1586078-1	183	350431-1	32	No drain holes
1586079-1	184	350433-1	32	No drain holes
1586085-1	185	350762-3	33	No drain holes
1586086-1	186	770351-1	155	Polarized, no drain holes
1586090-1	187	641969-1	155	No drain holes
1586091-1	188	641971-1	155	No drain holes
1586092-1	189	641973-1	155	No drain holes
1586096-1	170	-	-	Pin, Nos 10-12 AWG
1586137-1	190	641963-1	155	No drain holes
1586138-1	191	641965-1	155	No drain holes
1586139-1	192	643405-1	155	No drain holes
1586143-1	193	350582-1	32	No drain holes
1586144-1	194	350583-1	32	No drain holes
1586145-1	195	350584-1	32	No drain holes
1586149-1	196	350586-1	32	No drain holes
1586158-1	201	641971-1	155	Long tails, no drain holes
1586150-1	197	350587-1	32	No drain holes
1586152-1	198	641963-1	155	Long tails, no drain holes
1586153-1	199	641965-1	155	Long tails, no drain holes
1586154-1	200	641967-1	155	Long tails, no drain holes
1586158-1	201	641971-1	155	Long tails, no drain holes
1586159-1	202	641973-1	155	No drain holes
1586161-1	222	350786-1	49	No drain holes
1586162-1	223	350789-1	49	No drain holes
1586163-1	224	350792-1	49	No drain holes
1586169-1	226	350713-1	49	No drain holes
1586171-1	227	641968-1	155	No drain holes
1586176-1	228	641974-1	155	No drain holes
1586178-1	229	350787-1	49	No drain holes
1586179-1	230	350790-1	49	No drain holes
1586180-1	231	350793-1	49	No drain holes
1586185-1	232	350742-1	49	No drain holes
1586186-1	233	350737-1	49	No drain holes
1586188-1	234	641964-1	155	Long tails, no drain holes
1586189-1	235	641966-1	155	Long tails, no drain holes
1586190-1	236	641968-1	155	Long tails, no drain holes
1586195-1	237	641972-1	155	Long tails, no drain holes
1586196-1	238	641974-1	155	Long tails, no drain holes
1586198-1	203	350759-4	33	No drain holes
1586199-1	204	350760-4	33	No drain holes

<u>Series</u>	<u>Figure</u>	<u>Similar Cat No</u>	<u>Similar Fig</u>	<u>Description, Difference</u>
1586200-1	205	350761-4	33	No drain holes
1586205-1	206	350763-4	33	No drain holes
1586206-1	207	350764-4	33	No drain holes
1586208-1	208	643411-1	157	No drain holes
1586209-1	209	643413-1	157	No drain holes
1586214-1	210	643425-1	157	No drain holes
1586215-1	211	643428-1	157	V-2, no drain holes
1586217-1	212	350986-4	157	No drain holes
1586218-1	213	350987-4	157	No drain holes
1586219-1	214	350988-4	157	No drain holes
1586224-1	215	350990-4	157	No drain holes
1586225-1	216	350991-4	157	No drain holes
1586227-1	217	643411-1	157	Long tails, no drain holes
1586228-1	218	643413-1	157	Long tails, no drain holes
1586229-1	219	643415-1	157	Long tails, no drain holes
1586234-1	220	643425-1	157	Long tails, no drain holes
1586235-1	221	643428-1	157	Long tails, V2, no drain holes
1586237-1	239	350824-1	50	No drain holes
1586238-1	240	350825-1	50	No drain holes
1586239-1	241	350826-1	50	No drain holes
1586244-1	242	350828-1	50	No drain holes
1586245-1	243	350829-1	50	No drain holes
1586247-1	244	643412-1	157	No drain holes
1586248-1	245	643414-1	157	No drain holes
1586249-1	246	643416-1	157	No drain holes
1586254-1	247	643426-1	157	No drain holes
1586255-1	248	643428-1	157	No drain holes
1586257-1	249	350831-1	50	No drain holes
1586258-1	250	350832-1	50	No drain holes
1586259-1	251	350833-1	50	No drain holes
1586264-1	252	350835-1	50	No drain holes
1586265-1	253	350836-1	50	No drain holes
1586267-1	254	643412-1	157	Long tails, no drain holes
1586268-1	255	643414-1	157	Long tails, no drain holes
1586269-1	256	643416-1	157	Long tails, no drain holes
1586352-1	320	350763	319	9-pole, shorter pins
1586353-1	321	350761	318	4-pole, shorter pins
1586354-1	322	350759	317	2-pole, shorter pins
1586394-1	209	643413-1	-	3-pole, position 2 socket empty
1586395-1	209	643413-1	-	3-pole, position 1 socket empty

<u>Series</u>	<u>Fig</u>	<u>Similar Cat No</u>	<u>Similar Fig</u>	<u>Description, Difference</u>
1586515-3	281	350211-3	39	4-pole, lead free contacts
1586518-2	282	350212-2	39	8-pole, lead free contacts
1586520-2	283	350213-2	39	12-pole, lead free contacts
1586522-2	284	350214-2	39	16-pole, lead free contacts
1586525-2	285	350424-2	39	4-pole, lead free contacts
1586526-2	286	350425-2	39	6-pole, lead free contacts
1586528-2	287	350426-2	39	8-pole, lead free contacts
1586530-2	288	350539-2	39	1-pole, lead free contacts
1586532-2	289	350541-2	39	1-pole, lead free contacts
5-1586532-2	289	5-350541-2	39	1-pole, lead free contacts
1586534-2	290	350543-2	39	1-pole, lead free contacts
5-1586534-2	290	5-350543-2	39	1-pole, lead free contacts
1586539-2	291	350641-2	40	6-pole, lead free contacts
1586541-2	292	770000-2	145	4-pole, lead free contacts
2-1586544-0	293	2-380991-0	132	12-pole, lead free contacts
2-1586546-0	294	2-380999-0	39	6-pole, lead free contacts
1586661-1	310	1-480704-0	26	Body material
1586662-1	311	1-480705-0	26	Body material
1586663-1	312	1-480700-0	26	Body material
1586664-1	313	1-480701-0	26	Body material
1586665-1	314	794714-1	52	Body material
1586668-1	315	1-480710-0	26	Body material
1586669-1	316	1-480711-0	26	Body material
1586680-1	-	350711-1	155	6-pole, position 1 socket empty
1586680-5	-	350711-1	155	6-pole, position 5 socket empty
1586719-1	275	794099-1	9	Body shape
1586843-1	342	770421-1	4	Body material
1586844-1	343	1-480706-0	26	9-pole, body material
1586845-1	344	1-480703-0	26	Body material
1586846-1	345	1-480704-0	26	Body material
1586847-1	346	350766-1	27	Body material
1586848-1	347	350735-1	27	Body material
1586849-1	348	350767-1	27	Body material
1586850-1	349	770855-1	8	Body material
1586851-1	350	350777-1	27	Body material
1586852-1	351	350779-1	27	Body material
1586853-1	352	794761-1	-	Body material
1586854-1	353	794762-1	-	Body material
1586856-1	354	350788-1	27	Body material
1586860-1	373	1586662-1	311	6-pole cap, body material
1586866-1	395	1586952-1	356	2-pole, body material
1586869-1	400	1586866-1	395	3-pole
1586872-1	403	1586866-1	395	4-pole
1586876-1	410	194260-1	337	6-pole, female socket, no-lube
1586879-1	416	350763	319	9-pole, body material
1586887-1	355	794714-1	52	Body material
1586889-1	396	1586866-1	395	2-pole, right angle mount
1586890-1	397	1586889-1	396	2-pole, female socket

<u>Series</u>	<u>Fig</u>	<u>Similar Cat No</u>	<u>Similar Fig</u>	<u>Description, Difference</u>
1586895-1	404	1586889-1	396	4-pole
1586896-1	405	1586890-1	397	4-pole
1586898-1	407	1586889-1	396	5-pole
1586899-1	409	1586890-1	397	5-pole
1586892-3	387	350943-1	156	3-pole plug, body material
1586936-1	411	1586889-1	396	6-pole
1586937-1	412	1586890-1	397	6-pole
1586939-1	414	1586895-1	404	8-pole
1586952-1	356	1-480739-0	-	Body material
1586953-1	398	1586866-1	395	2-pole, male pin
1586955-1	399	1586953-1	398	2-pole, polarized
1586958-1	402	1586955-1	399	3-pole
1586963-1	406	1586953-1	398	4-pole
1586968-1	408	1586958-1	402	5-pole
1586979-1	413	1586876-1	410	6-pole
1586984-1	417	1586879-1	416	9-pole
1586998-1	415	1586890-1	397	8-pole
1604210	259	-	-	6-pole
1604254	260	-	-	9-pole
1604256	261	-	-	4-pole
1604941	261	-	-	12-pole
1644055-1	374	1586661-1	310	6-pole plug, body material
1644055-2	374	1644055-1	374	6-pole plug, body material
1703061-1	331	350777-1	277	2-pole, body material
1703061-2	331	1703061-1	331	2-pole, body material
1703062-1	332	350778-1	278	2-pole, body material
1703062-2	332	1703062-2	332	2-pole, body material
1863003-1	375	-	31	6-pole plug, body material
1863003-2	375	1863003-1	375	6-pole plug, body material
1863004-1	376	-	121	10-pole plug, body material
1863004-2	376	1863004-1	376	10-pole plug, body material
1863005-1	377	1586848-1	347	12-pole plug, body material
1863005-2	377	1863005-1	377	12-pole plug, body material
1863006-1	378	-	31	12-pole cap, body material
1863006-2	378	1863006-1	378	12-pole cap, body material
1863011-1	380	-	153	1-pole plug, body material
1863012-1	381	-	153	1-pole cap, body material
1863016-1	382	-	27	4-pole plug, body material
1877788	276	350810/350944	27/156	9-pole, combines of both
1950041-1	384	1877788	276	21-pole, additional pcb poles
1969795-1	418	1586866-1	395	Body material
1969796-1	419	1586889-1	396	Body material
1969797-1	420	1586890-1	397	Body material
1969798-1	421	1586953-1	398	Body material
1969799-1	422	1586955-1	399	Body material

<u>Series</u>	<u>Fig</u>	<u>Similar Cat No</u>	<u>Similar Fig</u>	<u>Description, Difference</u>
1969800-1	423	1586869-1	400	Body material
1969801-1	424	1586889-1	396	3-pole, body material
1969802-1	425	1586893-1	401	Body material
1969803-1	426	1586958-1	402	Body material
1969804-1	427	1586872-1	403	Body material
1969806-1	429	1586896-1	405	Body material
1969807-1	430	1586963-1	406	Body material
1969808-1	431	1586898-1	407	Body material
1969809-1	432	1586968-1	408	Body material
1969810-1	433	1586899-1	409	Body material
1969811-1	434	1586876-1	410	Body material
1969812-1	435	1586936-1	411	Body material
1969813-1	436	1586937-1	412	Body material
1969814-1	437	1586979-1	413	Body material
1969815-1	438	1586939-1	414	Body material
1969816-1	439	1586998-1	415	Body material
1969817-1	440	1586879-1	416	Body material
1969818-1	441	1586984-1	417	Body material
1969830-1	442	770262-3	394	Body material
2029000-1	323	1586354	319	9-pole, no drain holes
2029001-1	324	1586353	318	4-pole, no drain holes
2029002-1	3	1586352	317	2-pole, no drain holes
2029314-1	385	1586844-1	343	9-pole, body material
2029315-1	386	927231-3	371	9-pole, body material
2178473-1	372	1241809	-	3-pole, body material
2178473-2	372	2178473-1	372	3-pole, body material
2178474-1	370	926683-3	-	3-pole, body material
2178474-2	370	2178474-1	370	3-pole, body material
2178773-1	388	926682-7	369	6-pole cap, body material
2312156	444	350779	27	4-pole, pole 3, 4 blocked
2312156	445	350780	27	4-pole, pole 3, 4 blocked
2825081-1	393	1877788	276	9-pole, no jumper marking

2. Contacts/Pins/Terminals: (350561, 350690, 350699, 350706, 350851, 640347 may also be used with No 18 AWG pre-tinned stranded copper conductors).

- a) Copper alloy, for plating, shapes and dimensions see all figures.
- b) Anti-Wicking contact, see Fig 140.
- v) Part No 61085 - female Nos 14-20 AWG, reel, see Fig 302.
- w) Part No 61086 - male pin Nos 14-20 AWG, reel, see Fig 303.
- x) Part No 61233 - female Nos 10-12 AWG, reel, see Fig 304.
- y) Part No 61234 - male pin Nos 10-12 AWG, reel, see Fig 305.
- z) Part No 61250 - female Nos 14-20 AWG, loose, see Fig 306.
- aa) Part No 61251 - male pin Nos 14-20 AWG, loose, see Fig 307.
- ab) Part No 61252 - female Nos 10-12 AWG, loose see Fig 308.
- ac) Part No 61253 - male pin Nos 10-12 AWG, loose, see Fig 309.
- ak) Part No 194001 - male PCB solder, non-lubed see Fig 341, Series 1940XX.
- al) Part No 194235 - male PCB solder, lubricated see Fig 341, Series 1942XX..
- h) Part No 350218 - male pin Nos 14-20 AWG, reel, see Fig 263; current interruption.
- n) Part No 350536 - female Nos 14-20 AWG, reel, see Fig 264; current interruption.
- o) Part No 350537 - female Nos 14-20 AWG, reel, see Fig 265.
- i) Part No 350538 - male pin Nos 14-20 AWG, reel see Fig 266.
- j) Part No 350561 - male pin Nos 18-24 AWG, reel, see Fig 267; current interruption.
- p) Part No 350570 - female Nos 18-24 AWG, reel, see Fig 268.
- ah) Part No 350574 - male pin pcb solder, reel, see Fig 334, Cat Nos 350759, 350761, etc.
- ad) Part No 350690 - male pin Nos 18-24 AWG, loose, see Fig 327; current interruption.
- t) Part No 350699 - male pin Nos 18-24 AWG, reel see Fig 295; current interruption.
- ae) Part No 350706 - male pin Nos 18-24 AWG, loose, see Fig 328; current interruption.
- u) Part No 350851 - female Nos 18-24 AWG, reel, see Fig 296; current interruption.
- k) Part No 350873 - male pin Nos 14-18 AWG, reel, see Fig 269.
- q) Part No 350874 - female Nos 14-18 AWG, reel, see Fig 270.
- l) Part No 350922 - male pin Nos 10-12 AWG, reel, see Fig 271.
- r) Part No 350923 - female Nos 10-12 AWG, reel, see Fig 272.
- m) Part No 350924 - male pin Nos 30-26 AWG, reel, see Fig 273.
- s) Part No 350925 - female Nos 30-26 AWG, reel, see Fig 274.
- aj) Part No 350950 - male PCB Header, see Fig 340, Cat No 350945.
- af) Part No 640347 - female Nos 18-24 AWG, loose, see Fig 329; current interruption.
- c) Part No 1586064 - male pin Nos 10-12 AWG, see Fig 166 (26A max); Cat No 794911, etc.
- d) Part No 1586065 - female Nos 10-12 AWG, see Fig 167 (26A max); Cat No 794912, etc.
- e) Part No 1586066 - male pin Nos 14-20 AWG, see Fig 168 (13A max); Cat No 480711, etc.
- f) Part No 1586067 - female Nos 14-20 AWG, see Fig 169 (13A max); Cat No 480710, etc.
- g) Part No 1586096 - male pin Nos 10-12 AWG, see Fig 170 (22A max); Cat No 794911, etc.
- ai) Part No 1586356 - male pin pcb solder, reel see Fig 335, Cat Nos 1586352, 2029000, etc.
- ag) Part No 1954443 - male pin Nos 14-20 AWG, reel see Fig 333.

Part B - "UNIVERSAL MATE-N-LOK" Current Interruption (Series 350777, 350778)

General: These 2-pole devices are rated 2.0A, 600Vac current interruption, are the same as described in Part A, Fig 49, except for having only one specific body material (items 1 and 3) and are for use with only No 18 AWG solid, stranded or pre-tinned stranded copper conductors, see Figs 263, 264, 267, 277, 278, 295, 296, 327 to 329.

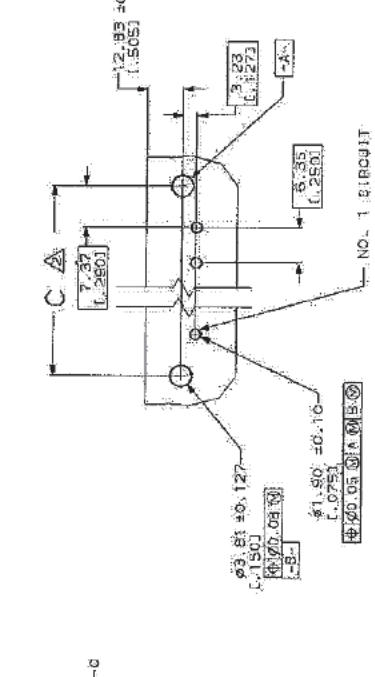
1. Male Body: Same (PA66/6) [REDACTED] as (item 1y, Part A) only, Series 350777, for shape and dimensions see Fig 277.
2. Male Pins: (Part Nos 350699, 350706 may also use pre-tinned No 18 AWG stranded wires).
 - a) Copper alloy, plated, Part No 350218, crimp, Nos 14-20 AWG, same as (item 2h, Part A), see Fig 263.
 - b) Copper alloy, plated, Part No 350699, crimp, Nos 18-24 AWG, same as (item 2t, Part A), see Fig 295.
 - c) Copper alloy, plated, Part No 350561, crimp, Nos 18-24 AWG, same as (item 2j, Part A), see Fig 267.
 - d) Copper alloy, plated, Part No 350690, crimp, Nos 18-24 AWG, same as (item 2ad, Part A), see Fig 327.
 - e) Copper alloy, plated, Part No 350706, crimp, Nos 18-24 AWG, same as (item 2ae, Part A), see Fig 328.
3. Female Body: Same (PA66/6) [REDACTED], as (item 1y, Part A) only, Series 350778, for shape and dimensions see Figs 278.
4. Female Contacts: (Part Nos 350851, 640347 may also use pre-tinned No 18 AWG stranded wires).
 - a) Copper alloy, plated, Part No 350536, crimp, Nos 14-20 AWG, same as (item 2n, Part A), see Fig 264.
 - b) Copper alloy, plated, Part No 350851, crimp, Nos 18-24 AWG, same as (item 2u, Part A), see Fig 296.
 - c) Copper alloy, plated, Part No 640347, crimp, Nos 18-24 AWG, same as (item 2af, Part A), see Fig 329.

THIS DRAWING IS UNCLASSIFIED AND RELEASED FOR PUBLIC USE BY THE NATIONAL ARCHIVES. ALL INFORMATION IS BELIEVED TO BE ACCURATE AND COMPLETE.

AMATE-N-LOK is a Trademark.

1. MATE WITH MATE-N-LOK (I) PLUG CONNECTORS USING 193936-1 PIN CONTACTS.

-C- IS A BASIC DIMENSION.



HOUSING MATERIAL, NYLON 94V-C

CONTACT MATERIAL - COPPER ALLOY
FINISH - 200 FINISH MIN SILVER
OVER 40 FINISH MIN NICKEL



RECOMMENDED LAYOUT FOR .062 THK PCB BOARD

PRELIMINARY - NOT FOR PRODUCTION

58.18	89.85	52.07	B	193839-5
40.13	50.87	33.02		
(L.580)	(L.995)	(L.800)		
33.76	44.33	26.57		
(L.590)	(L.745)	(L.450)		
27.43	37.97	20.33		
(L.080)	(L.495)	(L.800)		
21.08	31.52	18.97		
(L.890)	(L.245)	(L.550)		

C	B	A	NO OF POSN	PART NUMBER

AMP Incorporated
Morton Park, PA 17105-3009

SOCKET HEADER, RT ANGLE MOUNT,
UNIVERSAL MATE-N-LOK

SIZE: CASE CODE 00779
THRU 5 POSITION

SCALE: 2:1

PART NO: 193839

DO NOT SCALE PRINT.
UNLESS SPECIFIED, DIMENSIONS ARE IN INCHES.
TOLERANCES UNLESS OTHERWISE SPECIFIED:
FRACTIONS DECIMALS
ANGLES PERCENTS
PITCHES PERCENTS

APPLICATION SPEC: -

DATE: -

DESIGNER: -

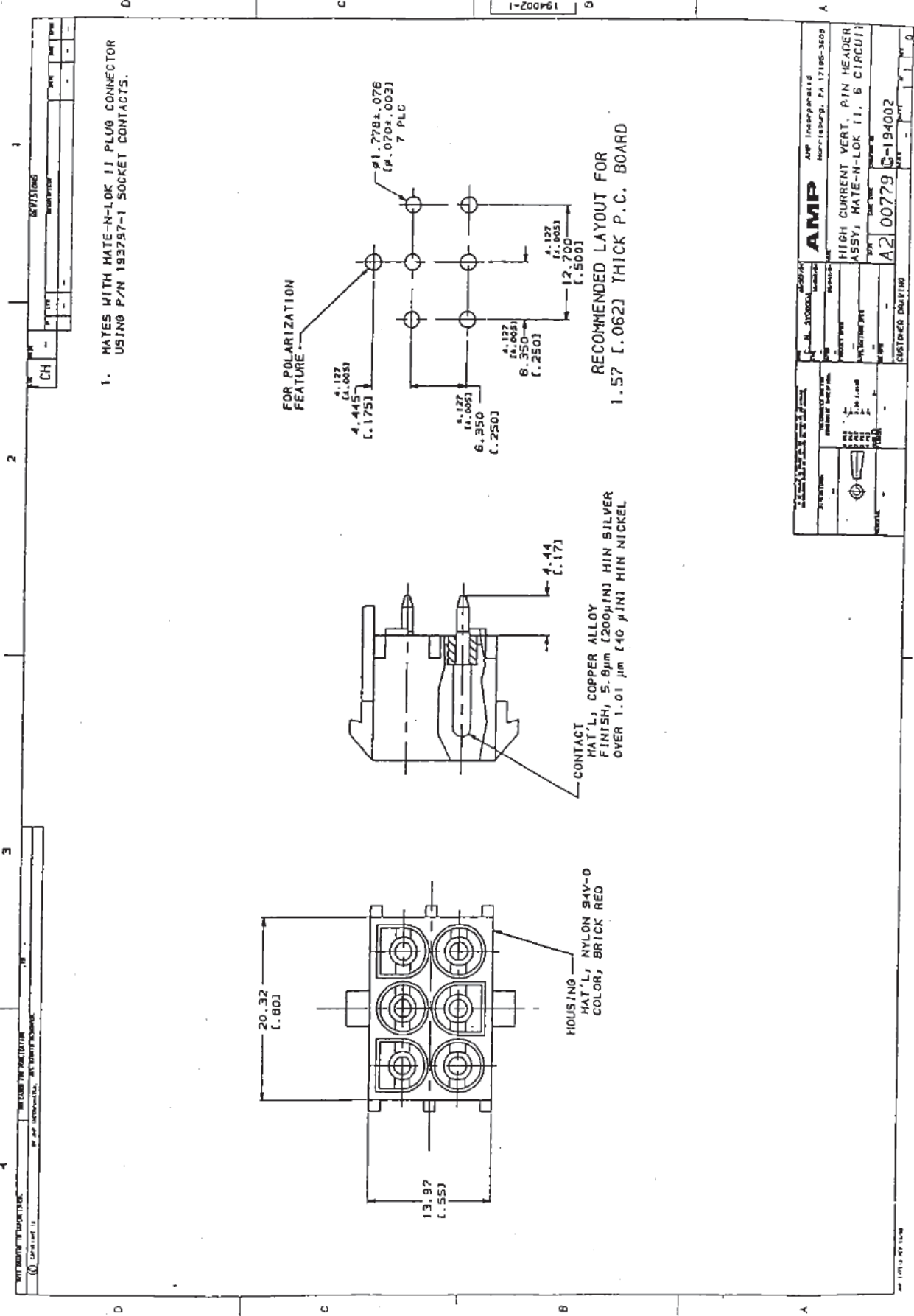
APP'D: -

CHK'D: J. TURNER

UR 8927-03

25-PP-02

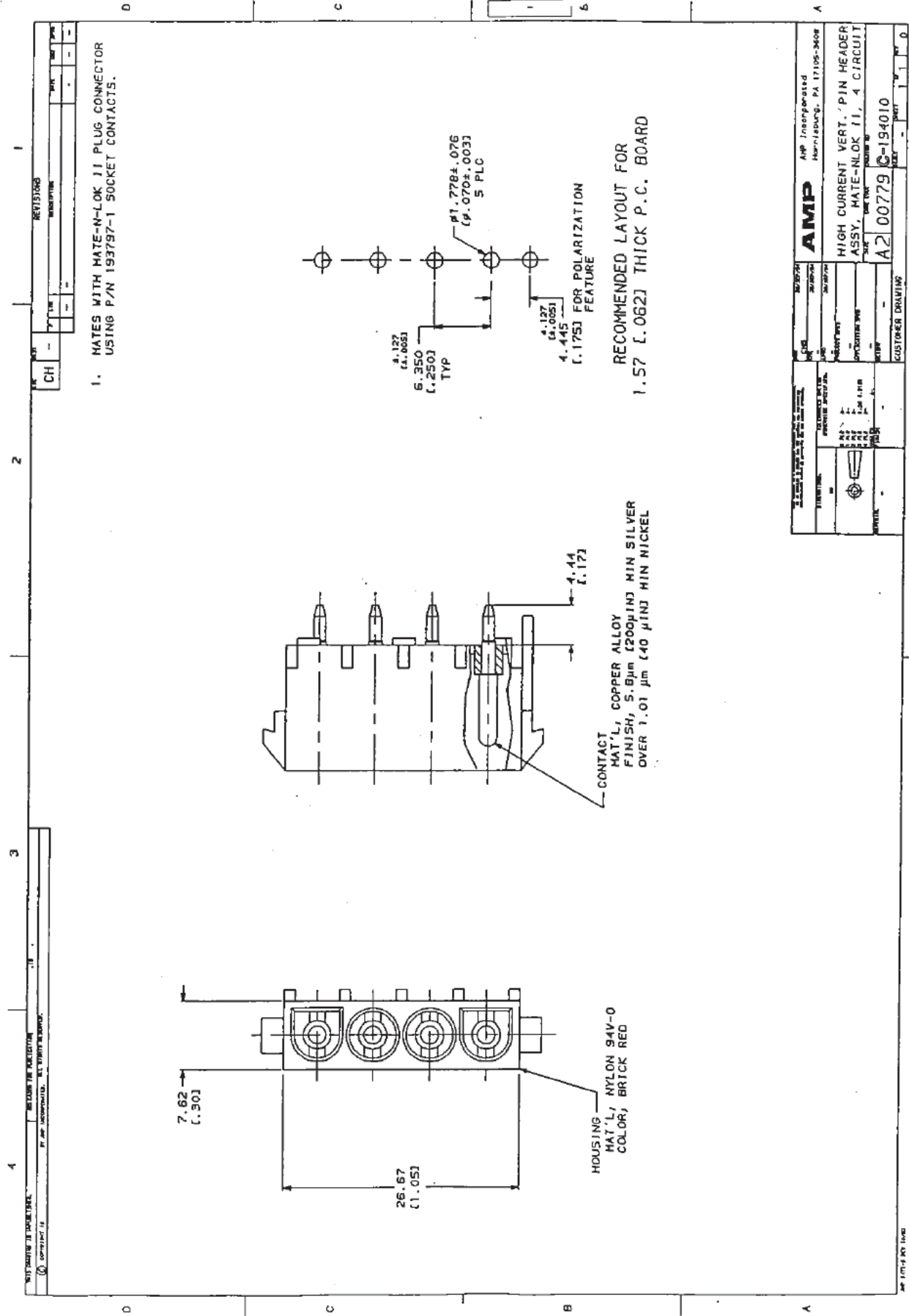
AMATE-N-LOK is a Trademark.



AMP AMP Incorporated Morrisburg, Pa. 17196-3609	
HIGH CURRENT VERT. PIN HEADER ASSY, MATE-N-LOK II, 6 CIRCUIT	
DATE	REV
A2 00779	C-194002
CUSTOMER DRAWING	

NOT RECOMMENDED FOR USE IN MILITARY APPLICATIONS

FIG 2
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

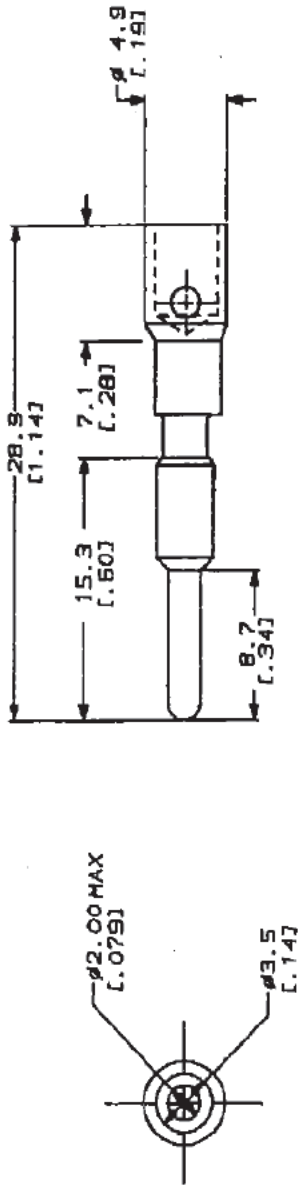


AMP AMP Incorporated Harrisburg, PA 17105-3608	
PART NO. 00779 REV. 0	CUSTOMER DRAWING A2 00779 C-194010
TITLE HIGH CURRENT VERT. PIN HEADER ASSY. MATE-N-LOK JI, 4 CIRCUIT	DATE
DRAWN BY	CHECKED BY
DESIGNED BY	APPROVED BY
MATERIALS	FINISH
DIMENSIONS	TOLERANCES
SURFACE FINISH	PLATING
PART NO. 00779 REV. 0	CUSTOMER DRAWING A2 00779 C-194010

FIG 3
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION BY AMP INCORPORATED. ALL INTERNATIONAL RIGHTS RESERVED.		DATE 11-17-88		APPRO. PRG	
CH	11	P	F	REVISIONS	
ZONE	LTR	DESCRIPTION			
A	INITIAL RELEASE				

- △ MATERIAL-COPPER ALLOY
- △ FINISH-5.08 μM [0.002] SILVER OVER 1.02 μM [0.0004] NICKEL.
- 3. WIRE BARREL WILL ACCEPT #10 AWG WIRE.
- 4. MATES WITH AMP PART NUMBER 193797-1.

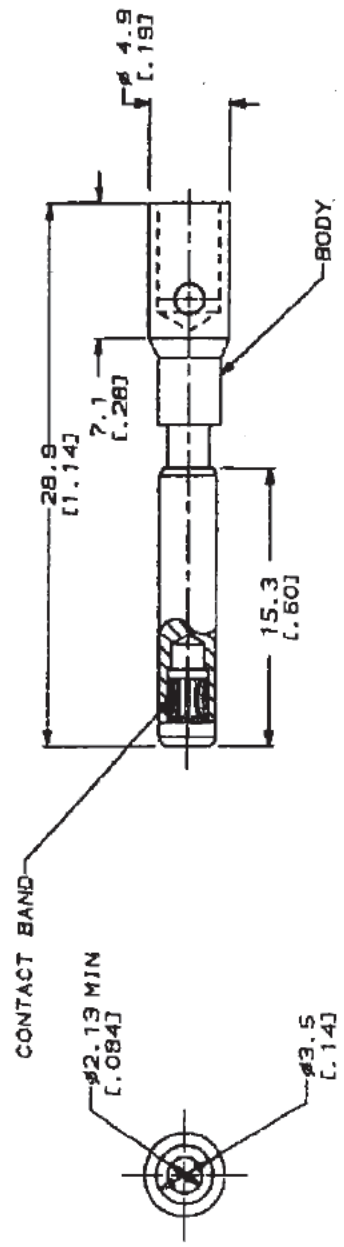


DO NOT SCALE PRINT. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED. DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY. DIMENSIONS IN SQUARE BRACKETS ARE FOR CONFORMANCE WITH THE LATEST INTERNATIONAL STANDARD.		AMP INCORPORATED HARRISBURG, PA 17105-3600	
DATE 11-17-88	DESIGNER	193796-1	PART NO
APPD 11-17-88	DATE	AMP INCORPORATED	
PRODUCED BY	SCALE	PIN, 2mm, #10 AWG	
UNIVERSAL MATE-N-LOK II	SCALE	UNIVERSAL MATE-N-LOK II	
FINISH	SCALE	00779	C-193796
APPLICATION SPEC	SCALE	NONE	1 OF 1
WEIGHT	SCALE	CUSTOMER DRAWING	

17 NOV 1983 11:01:26 AMP:RDKR DIR10R4SJEPT77R0001 0700011 CURTINER

DATE	DESCRIPTION	BY	CHKD	APP'D
11-17-80	INITIAL RELEASE	A	CH 11	PRO

- △ MATERIAL- BODY, COPPER ALLOY BAND, BeCu
- △ FINISH- BODY AND BAND, 5.08μM(.000200) SILVER OVER 1.02μM(.000040) NICKEL.
- 3. WIRE BARREL WILL ACCEPT #10 AWG WIRE.
- 4. MATES WITH AMP PART NUMBER 193796-1.



PART NO 193797-1	
AMP Incorporated Harrisburg, PA 17105-3604	
SOCKET ASSY, LOUVERTAC, #10 AWG, UNIVERSAL MATE-N-LOK II	
QTY	00779
DESCRIPTION	C-193797
REVISION	NONE
DATE	11-17-80
BY	A
CHKD	CH 11
APP'D	PRO

CUSTOMER DRAWING

17 NOV 1980 11 36 24 AMBSSJNO 485084-INT32500011 APPA II PLATEAUA

FIG 5
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

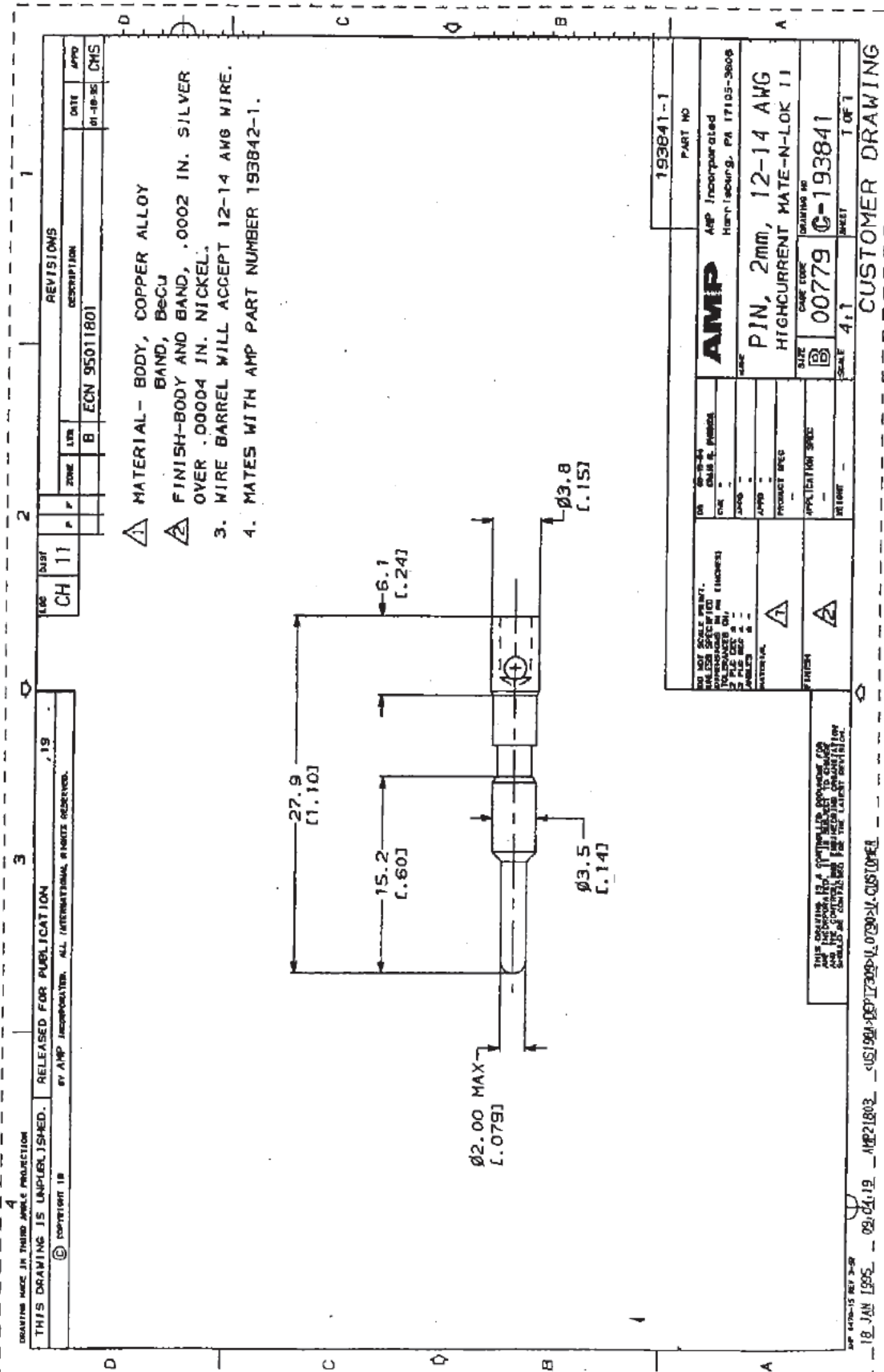
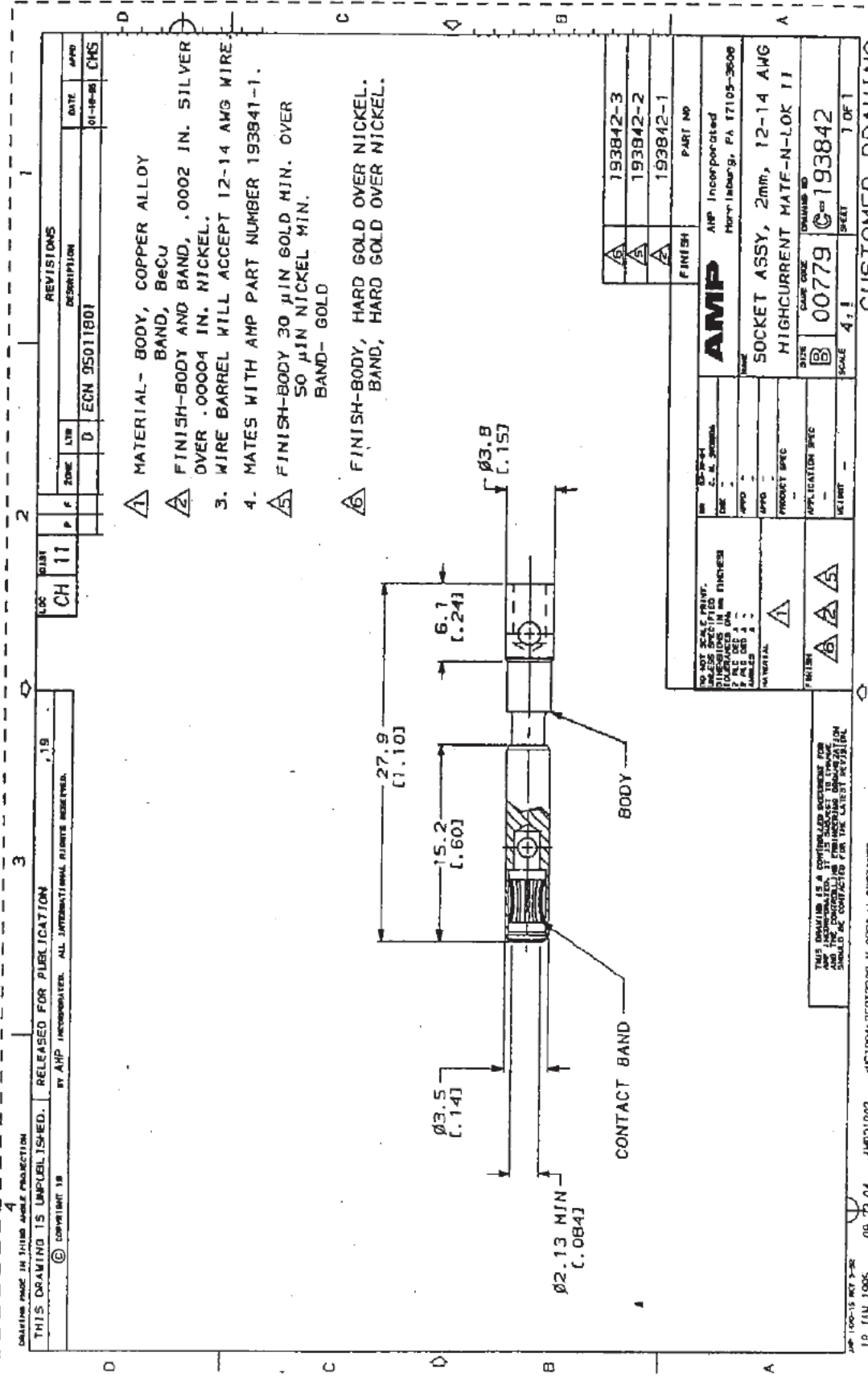


FIG 6
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



CUSTOMER DRAWING

DATE	01-18-86	CHK	CHS
REV	1	DESCRIPTION	
ZONE	D	ECN	95011801
DATE	01-18-86	CHK	CHS

NO	193842-3	FINISH	AMP
NO	193842-2	FINISH	AMP
NO	193842-1	FINISH	AMP

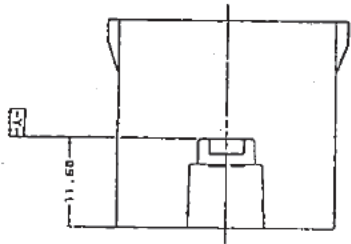
NAME	AMP Incorporated
ADDRESS	Harvey Laburg, PA 17105-3608
PRODUCT SPEC	SOCKET ASSY, 2MM, 12-14 AWG
APPLICATION SPEC	HIGHCURRENT MATE-N-LOK II
SCALE	4:1
SHEET	1 OF 1

FIG 7
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

C-15
 100 PERCENT COMPLETE

1. DIMENSIONS OF THIS CONNECTOR ARE CONTROLLED BY THE METRIC PART NUMBER. IF YOU REQUIRE DIMENSIONS BASED ON A PART NUMBER MANUFACTURED BY S.I. MOTOR, AN DIMENSIONAL CHECKS OF FITTED PART ARE MADE WITHOUT CONSULTING S.I. MOTOR.

△ These Dimensions will be Family changed, when Drawing Eq. Change is complete -

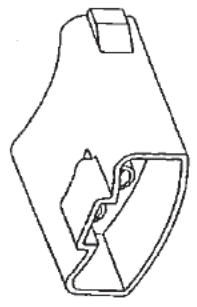
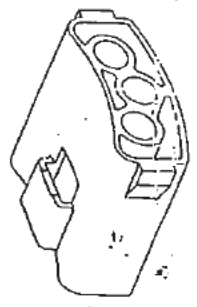
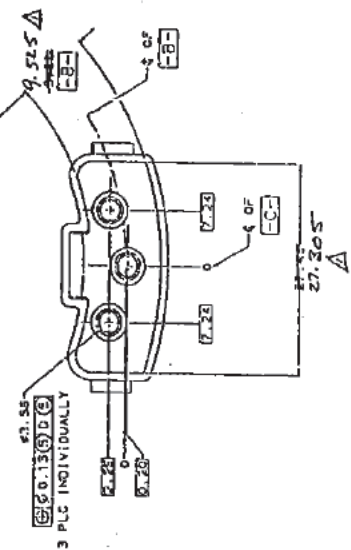


3.84
 3.77
 3.65
 3.53
 3.41
 3.29
 3.17
 3.05
 2.93
 2.81
 2.69
 2.57
 2.45
 2.33
 2.21
 2.09
 1.97
 1.85
 1.73
 1.61
 1.49
 1.37
 1.25
 1.13
 1.01
 0.89
 0.77
 0.65
 0.53
 0.41
 0.29
 0.17
 0.05

3 PLC INDIVIDUALLY



R 32.53



794099

794099

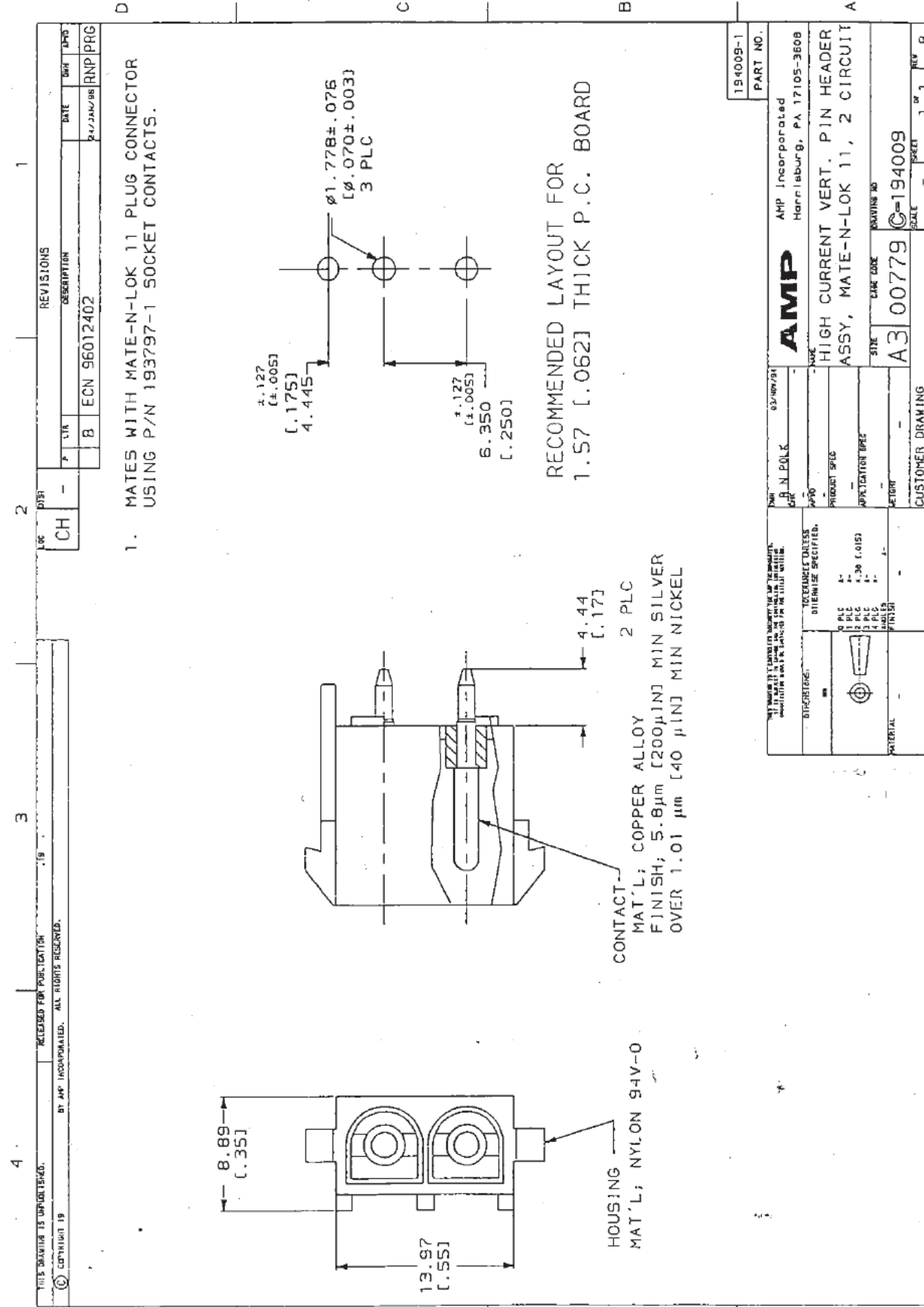
DATE: 11/15/93
 DRAWN: [blank]
 CHECKED: [blank]
 APPROVED: [blank]
 PART NO. [blank]
 QTY. [blank]

METRIC

CONVERSION TABLE	
IN	MILLIMETERS
1.0000	25.4000
0.5000	12.7000
0.2500	6.3500
0.1250	3.1750
0.0625	1.5875
0.03125	0.79375
0.015625	0.396875
0.0078125	0.1984375
0.00390625	0.09921875

3-DIMENSIONAL MODEL
 METC

FIG 9
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549



REVISED FOR PUBLICATION		REVISIONS	
DATE	DESCRIPTION	DATE	REV
24/JAN/96	RNP PRG		
	ECN 96012402		

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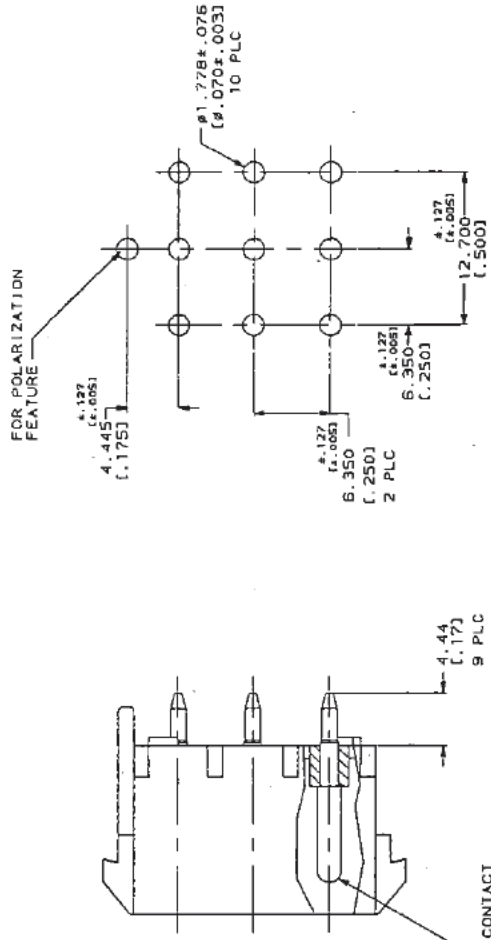
194009-1	PART NO.
AMP Incorporated Harrisburg, PA 17105-3608	
HIGH CURRENT VERT. PIN HEADER ASSY, MATE-N-LOK 11, 2 CIRCUIT	
A3 00779	SCALE
C-194009	REV B

AMP 1476-18 REV 10/83
 24-JUN-96 12:10:48 amp21802/home/amp21803/home/v

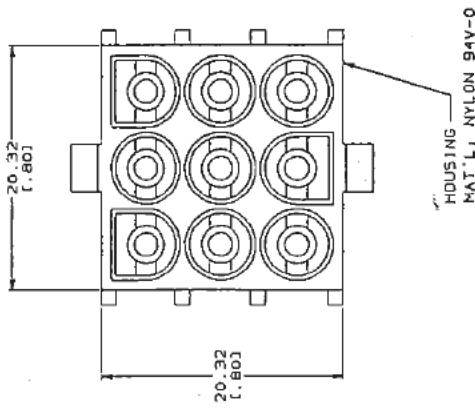
FIG 10
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

1. MATES WITH HATE-N-LOK II PLUG CONNECTOR USING P/N 193797-1 SOCKET CONTACTS.



CONTACT
MAT'L: COPPER ALLOY
FINISH: 5.8µm (200µIN) MIN SILVER
OVER 1.01 µm (40 µIN) MIN NICKEL



HOUSING
MAT'L: NYLON 94V-0

RECOMMENDED LAYOUT FOR
1.57 (.062) THICK P.C. BOARD

194012-1 PART NO.		AMP Incorporated Harrisburg, PA 17105-2608	
CH -		REVISIONS	
B		ECN 98012402	
DRAWING NO.		PART NO.	
HIGH CURRENT VERT. PIN HEADER ASSY, HATE-N-LOK 11, 9 CIRCUIT		A2 00779	
CUSTOMER DRAWING		C-194012	

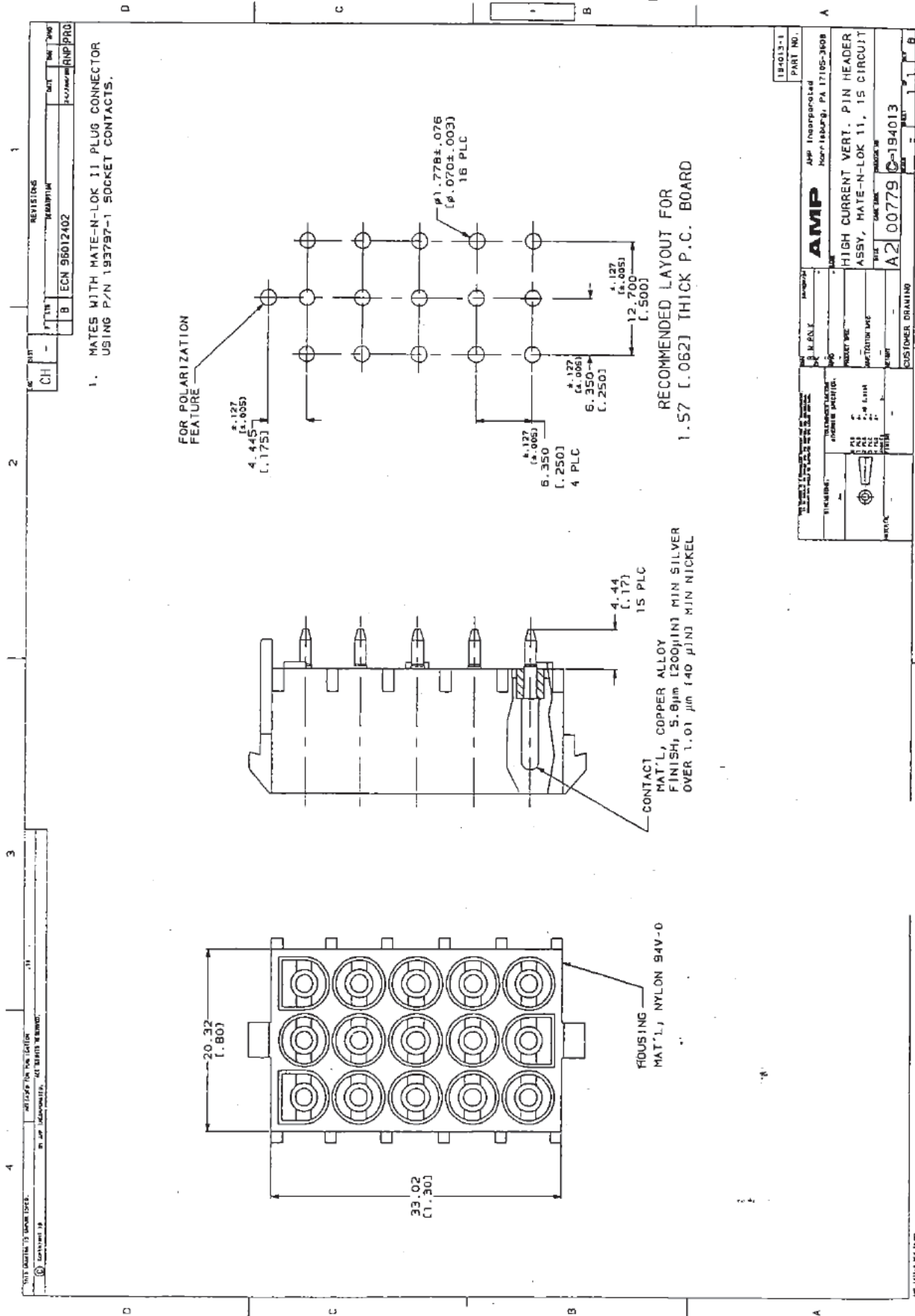
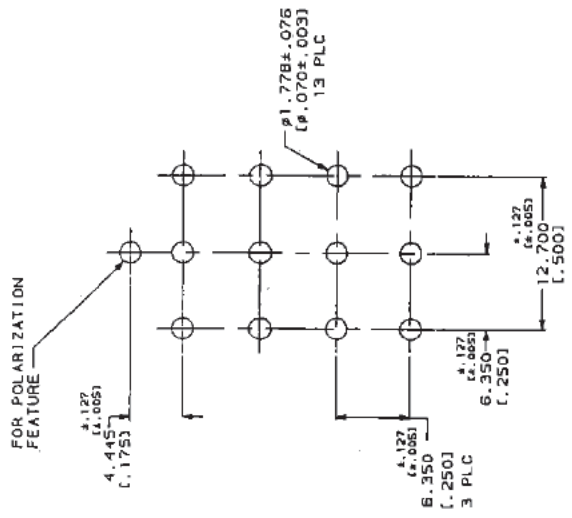


FIG 12
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

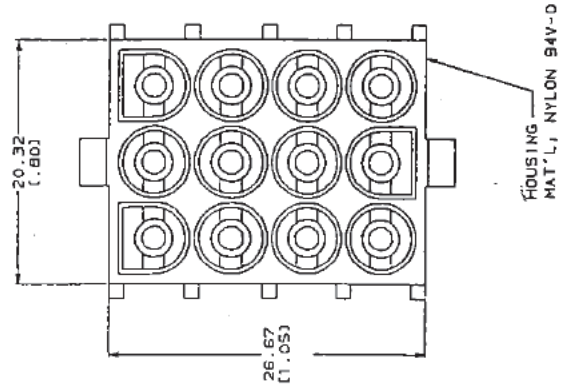
REVISIONS		DATE	BY
1	CH	194014-1	AMP
DESCRIPTION		DATE	BY
B TECH 96012402			RNP/PRO

1. MATES WITH MATE-N-LDK 11 PLUG CONNECTOR USING P/N 193797-1 SOCKET CONTACTS.



FOR POLARIZATION FEATURE

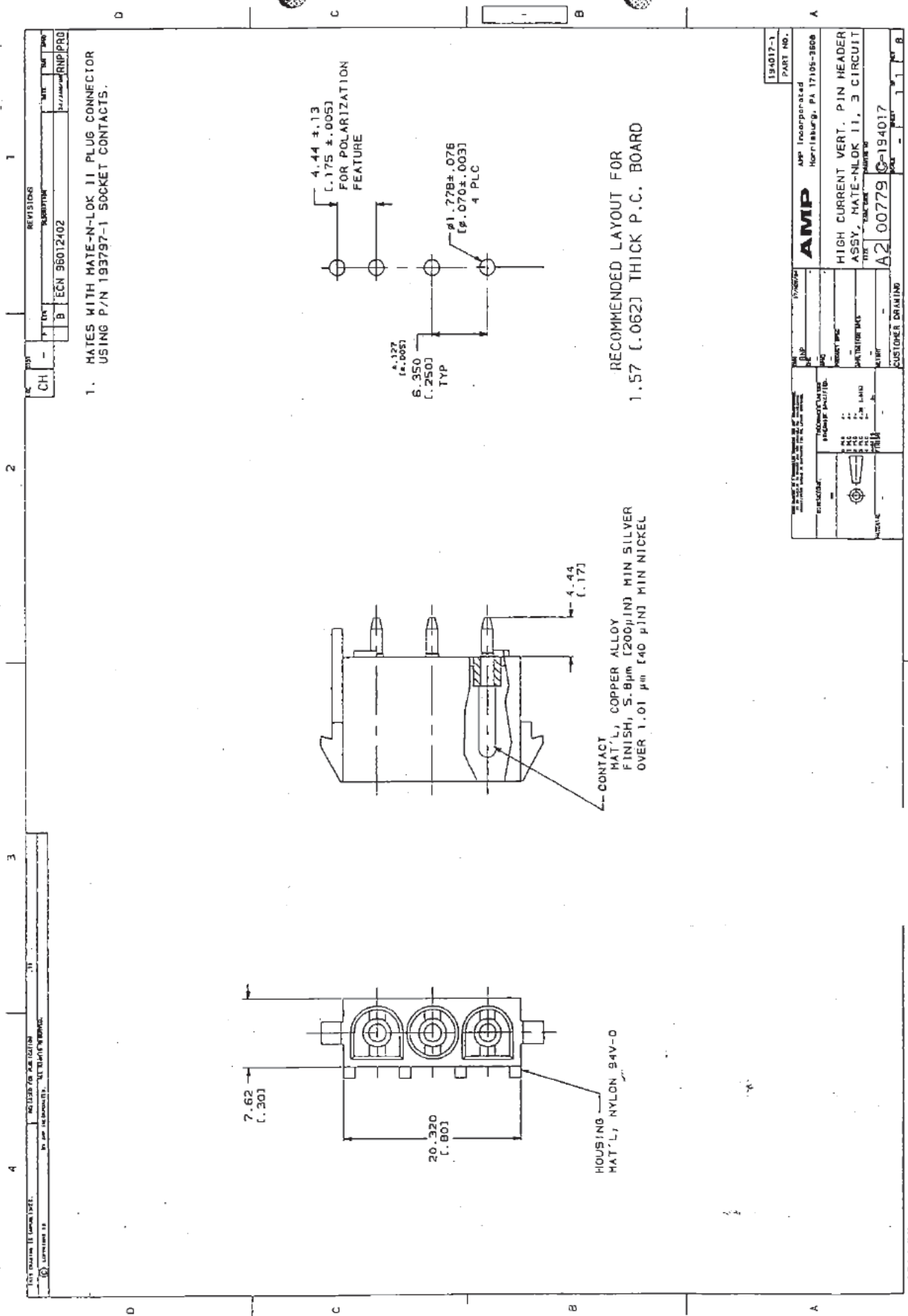
CONTACT MAT'L: COPPER ALLOY FINISH: 5.8µm (200µin) MIN SILVER OVER 1.01µm (40µin) MIN NICKEL



HOUSING MAT'L: NYLON 94V-D

RECOMMENDED LAYOUT FOR 1.57 (±.062) THICK P.C. BOARD

AMP Incorporated		194014-1	
100018008, PA 17105-3808		PART NO.	
HIGH CURRENT VERT. PIN HEADER ASSY, MATE-N-LDK 11, 12 CIRCUIT		TITLE	
A2100779		C-194014	
CUSTOMER DRAWING		DATE	



1. MATES WITH MATE-N-LOK II PLUG CONNECTOR USING P/N 193797-1 SOCKET CONTACTS.

RECOMMENDED LAYOUT FOR
1.57 (.062) THICK P.C. BOARD

CONTACT MAT'L, COPPER ALLOY
FINISH, 5-8µm (200PIN) MIN SILVER
OVER 1.01 µm (40 PIN) MIN NICKEL

HOUSING MAT'L, NYLON 94V-0

REVISIONS	
REV	DESCRIPTION
1	ECN 96012402
2	
3	
4	

AMP	
AMP Incorporated Horshburg, PA 17105-3608	
HIGH CURRENT VERT. PIN HEADER ASSY, MATE-N-LOK II, 3 CIRCUIT	
194017-1	PART NO.
CUSTOMER DRAWING	
A2	00779
194017	

9-244-56 12.26.17 0221802/000/001/001/000/000

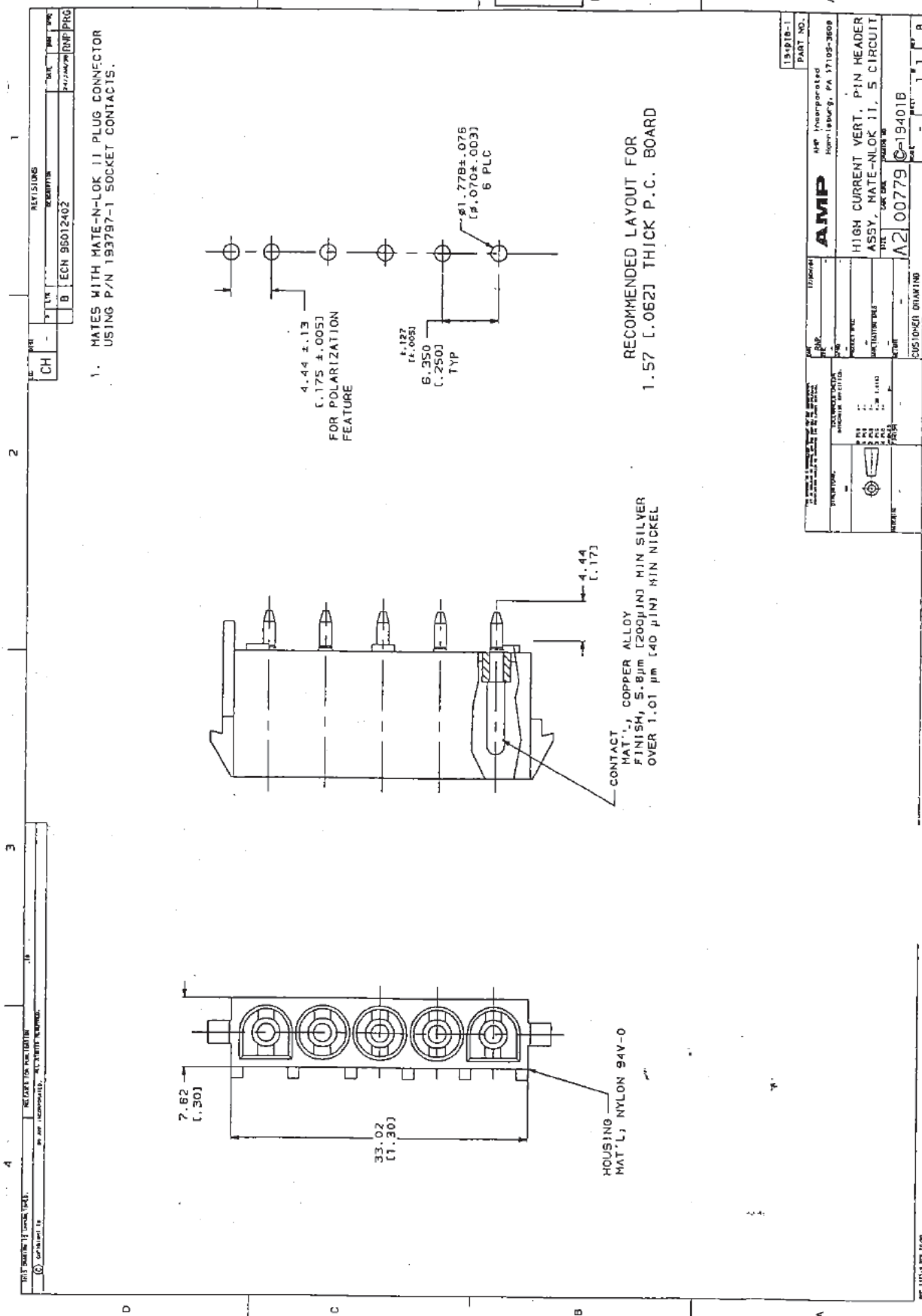
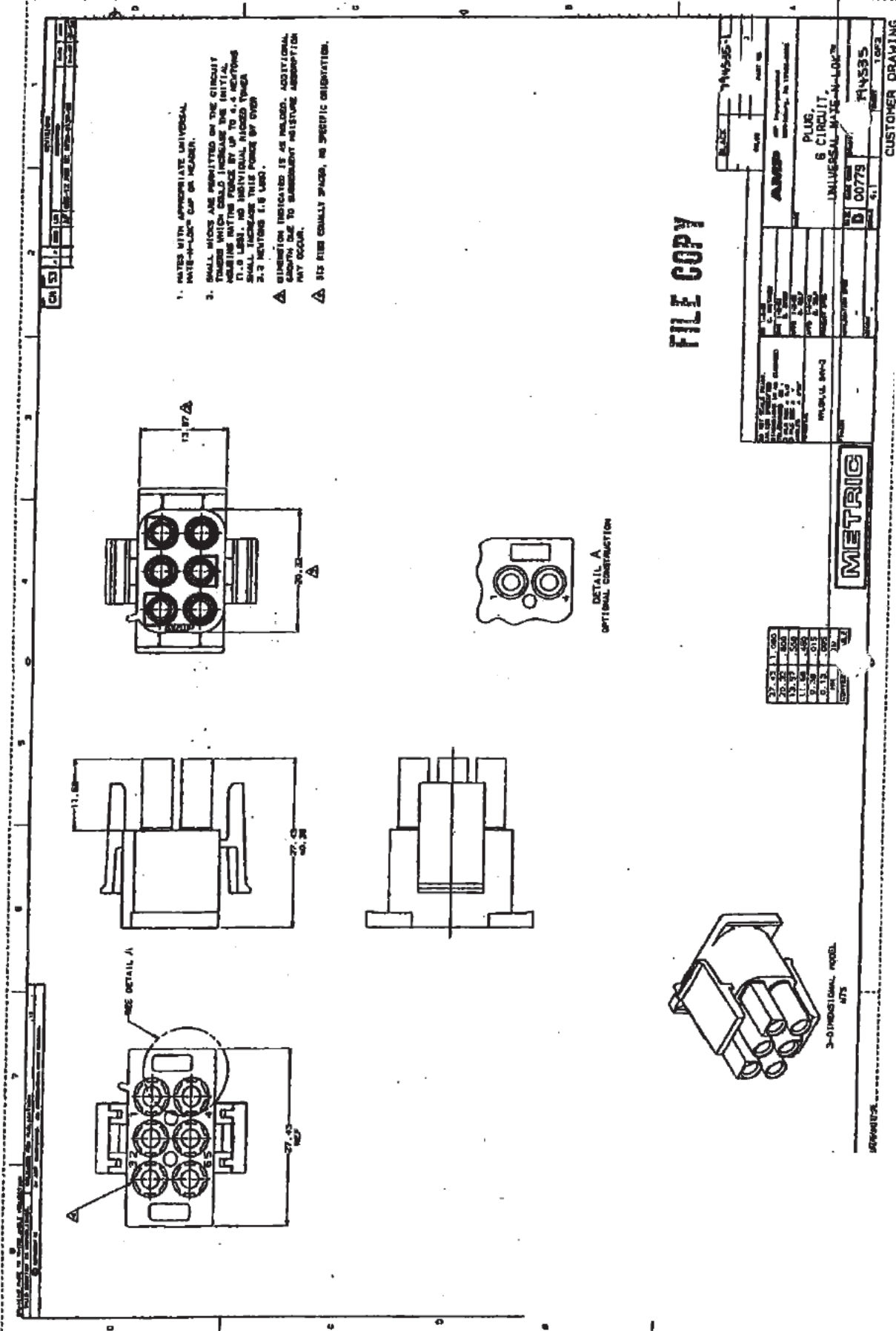


FIG 15
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



1. MATES WITH APPROPRIATE UNIVERSAL NATE-W-L-2" CAP OR HEADIN.
 2. SMALL WICKS ARE PERMITTED ON THE CIRCUIT BOARD WHICH WOULD INCREASE THE INITIAL PLATING BATHING FORCE BY UP TO 4.4 SECONDS PER HOUR AND INITIAL PLATED THICKNESS SHALL INCREASE 1.8 TIMES PER HOUR.
 3. SMALL WICKS ARE PERMITTED ON THE CIRCUIT BOARD WHICH WOULD INCREASE THE INITIAL PLATING BATHING FORCE BY UP TO 4.4 SECONDS PER HOUR AND INITIAL PLATED THICKNESS SHALL INCREASE 1.8 TIMES PER HOUR.
- ▲ DIMENSION INDICATED IS AS SHOWN. ADDITIONAL GAINING DUE TO SUBSEQUENT HEISTURE ABSORPTION MAY OCCUR.
 ▲ SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION.

FILE COPY

DATE	1963
REV	3
DESIGNER	ALWSP
CHECKED	
APPROVED	
PROJECT NO.	UNIVERSAL-18-A-10478
REV	1
DATE	1963
BY	D 00779
CHKD	FHS35

37.45	11.85
27.45	27.0
11.85	11.85
27.0	27.0
11.85	11.85
27.0	27.0
11.85	11.85
27.0	27.0
11.85	11.85
27.0	27.0

DETAIL A
OPTIONAL CONSTRUCTION

METRIC

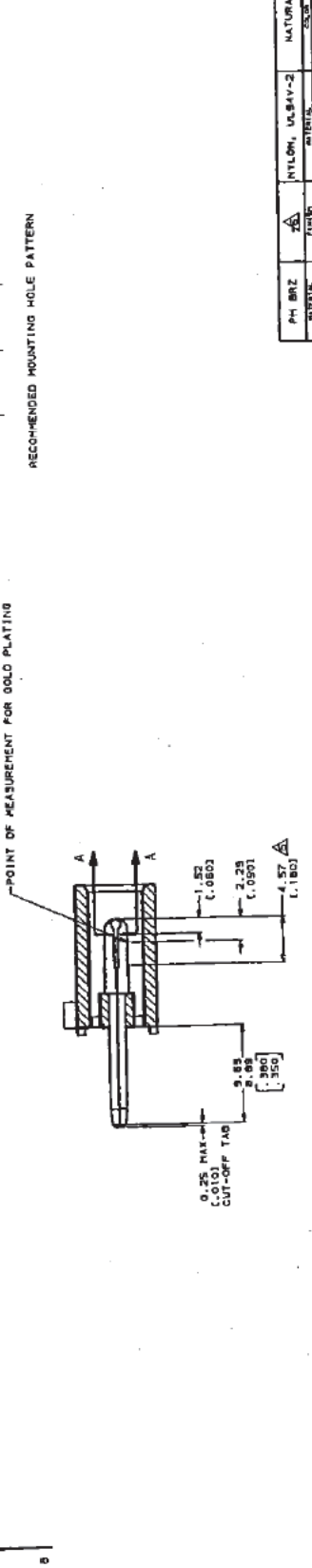
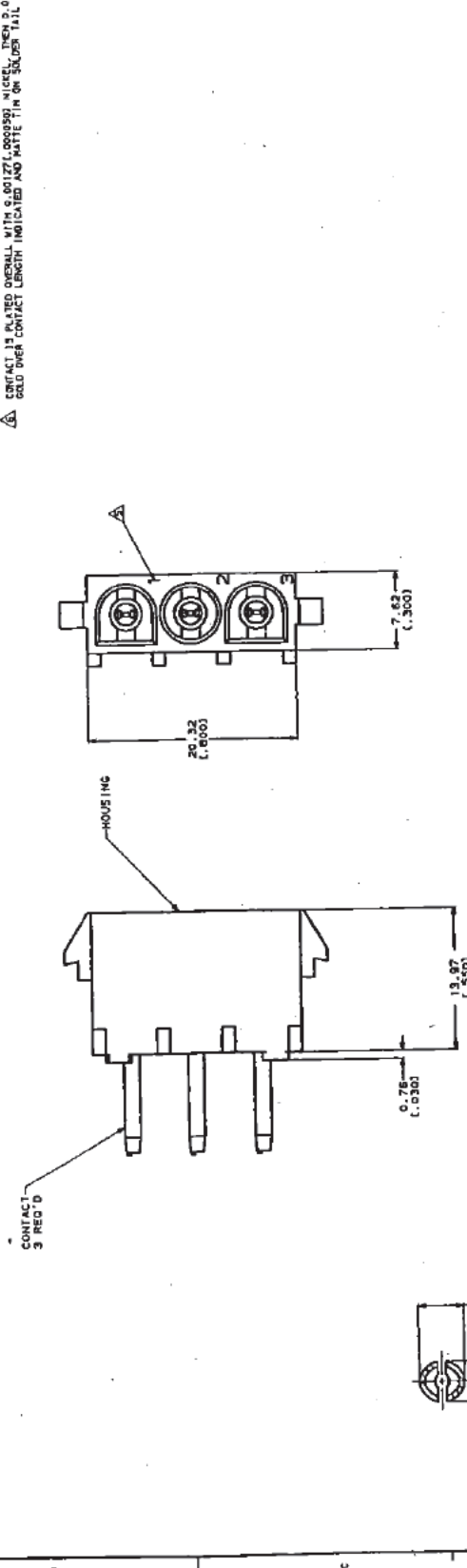
CUSTOMER DRAWING

3-0 DIMENSIONAL REQD.
475

APPENDIX

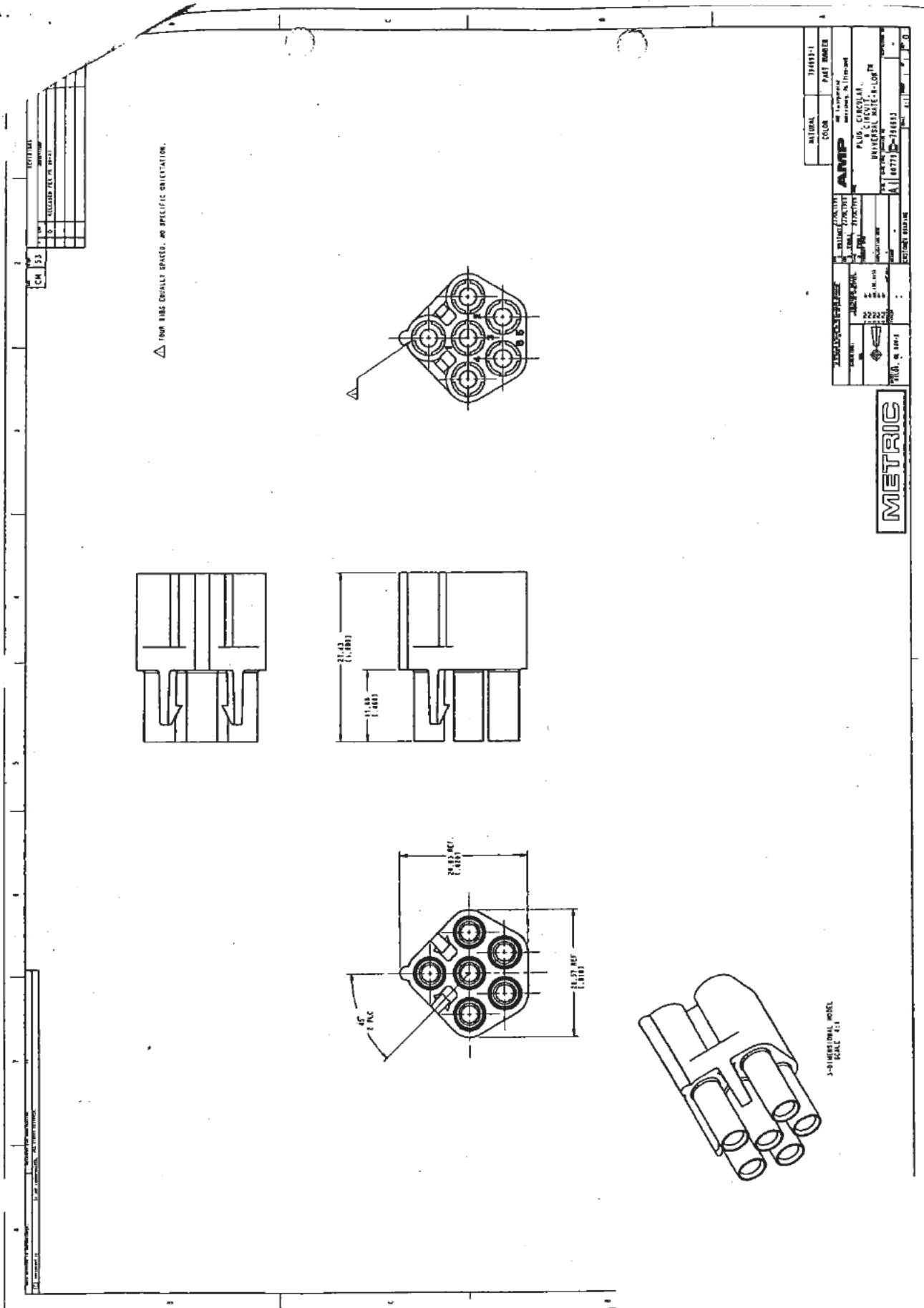
FIG 16
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

1. PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-3.
 2. DIMENSIONS IN BRACKETS ARE IN INCHES.
 3. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES.
 4. BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
 5. CONTACT IS PLATED OVERALL WITH 0.001Z(1.000000) NICKEL, THEN 0.00075(1.000000) GOLD OVER CONTACT LENGTH INDICATED AND MATE TIE ON SOLDER TAIL END.



PH BRZ	NYLON, UL94V-2	NATURAL	794403-1
ALTERNATE	PLATE	FINISH	PART NO.
DATE	REV	BY	CHKD
10/11/68	1	W. J. H.	W. J. H.
UNIVERSAL MATE-H-LOK™			
P/N HEADER ASSEMBLY,			
3 CIRCUIT,			
AMP			
UNIVERSAL MATE-H-LOK™			
A) 00779-794403			





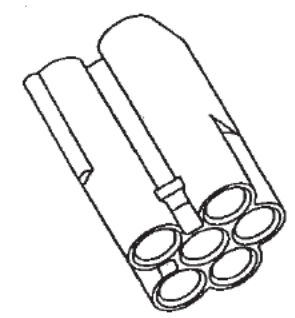
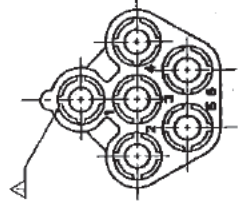
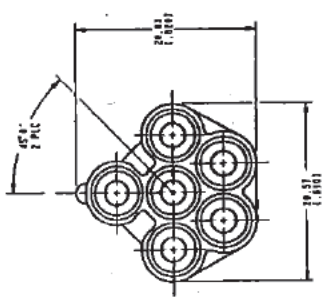
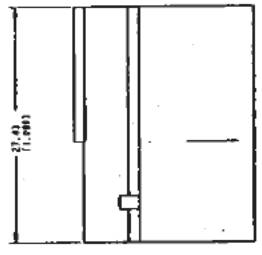
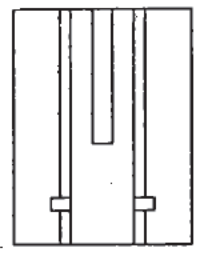
794693

FIG 19
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	DESCRIPTION
1			
2			
3			
4			
5			

CA 53

△ FORM BISS EQUALLY SPACED, NO SPECIFIC ORIENTATION.



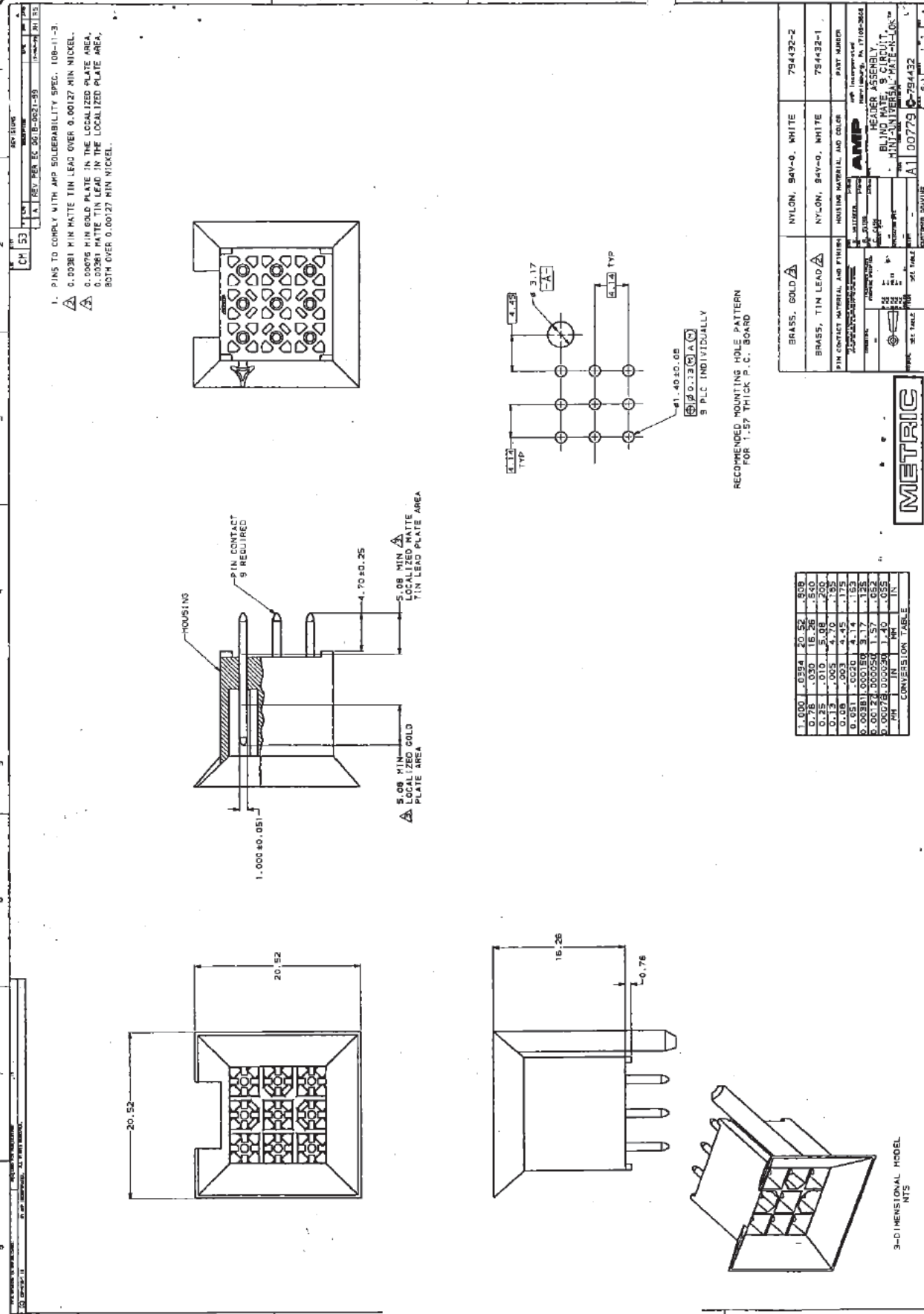
3-D PERSPECTIVE VIEW
SCALE 1:1

NATURAL	74451-1
COLOR	PART NUMBER
AMP	
AMERICAN MICROFILMS CORPORATION	
SERIALS ACQUISITION	
300 NORTH ZEEB RD	
ANN ARBOR MI 48106	
TEL: 313/761-1300	
FAX: 313/761-1300	
E-MAIL: AMP@UMI.EDU	

METRIC

794694

FIG 20
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



METRIC

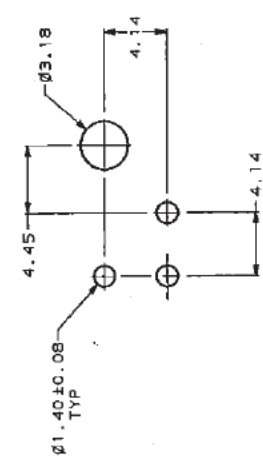
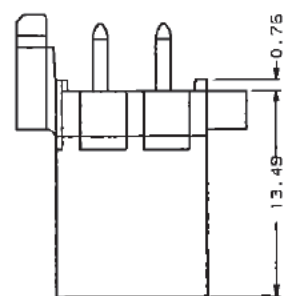
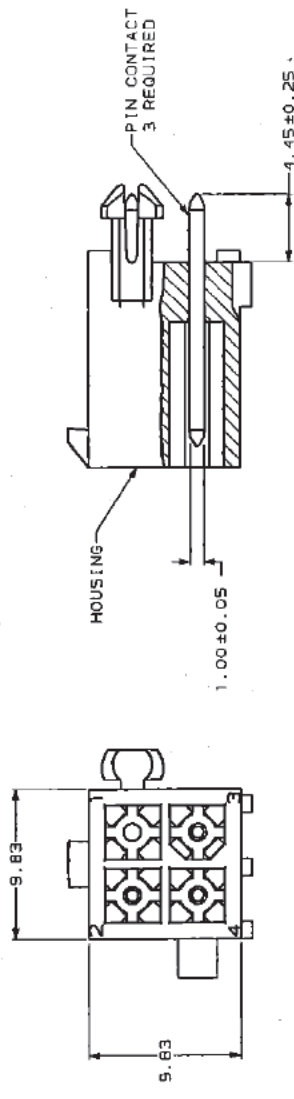
BRASS, GOLD/A	NYLON, 84V-0, WHITE	794432-2
BRASS, TIN LEAD/A	NYLON, 84V-0, WHITE	794432-1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
AMP HEATER ASSEMBLY BLIND MATE 9 CIRCUIT MINI-UNIVERSAL-MATE-N-LOCK		
REV	DATE	BY
1	10/23/81	...
PART NUMBER		794432
REV		A1 00779
DATE		10/23/81
BY		...

FIG 23
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

1 2 3 4

THIS DRAWING IS UNCONTROLLED.	REVISED FOR FACILITATION	REV. NO.	DATE	BY	CHK. BY
COMMITTEE 1	BY THE ENGINEERING DEPARTMENT	53	05-10-82	CH	CH
REVISIONS		NO.	DATE	BY	CHK. BY
A		1	05-10-82	CH	CH
DESCRIPTION		REV PER EC 003 B-0032-99			

1. PINS TO COMPLY WITH AMP SOLDERABILITY SPEC. 109-11-3.
 2. 0.00381 MIN MATTE TIN LEAD PLATE OVER 0.00127 MIN NICKEL.



RECOMMENDED LAYOUT FOR 1.57 THICK BOARD
 TOLERANCES NON-ACCUMULATIVE

IN	MIL	IN
1.00	.039	-
0.75	.030	13.49
0.25	.010	9.83
0.13	.005	4.45
0.08	.003	4.14
0.05	.002	3.18
0.00381	.000150	1.57
0.00127	.000050	1.40

CONVERSION TABLE
 SEE LIST-3 REV 11/81

BRASS	FINISH	NYLON, UL94V-0	WHITE	794600-1
MATERIAL	PTN	MATERIAL	COLOR	PART NO
THIS DRAWING IS A CONTROLLED DOCUMENT.				
BY WHITAKER 01-20-1982 DES. SULLIVAN 01-20-1982 P.C. COBLE APPROVED BY:				
AMP Incorporated Harrisburg, PA 17105-3608 HEADERS ASSEMBLY, 4 CIRCUIT, POST NO. 1 OMITTED, MINI UNIVERSAL MATE-N-LOK™ SIZE CASE CODE: 794600 PART NO: A2007791C-794600				
CUSTOMER DRAWING				

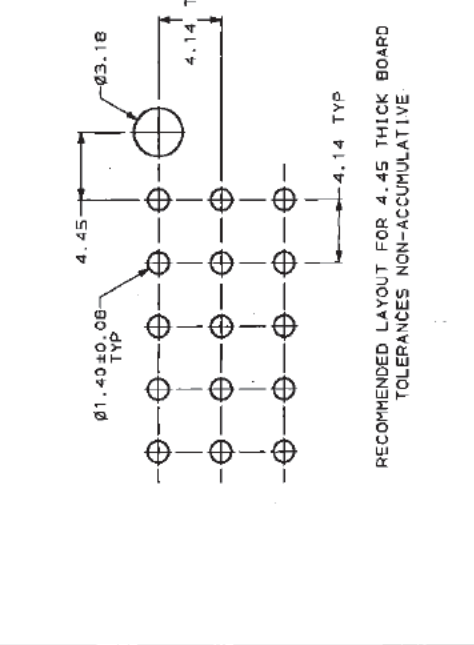
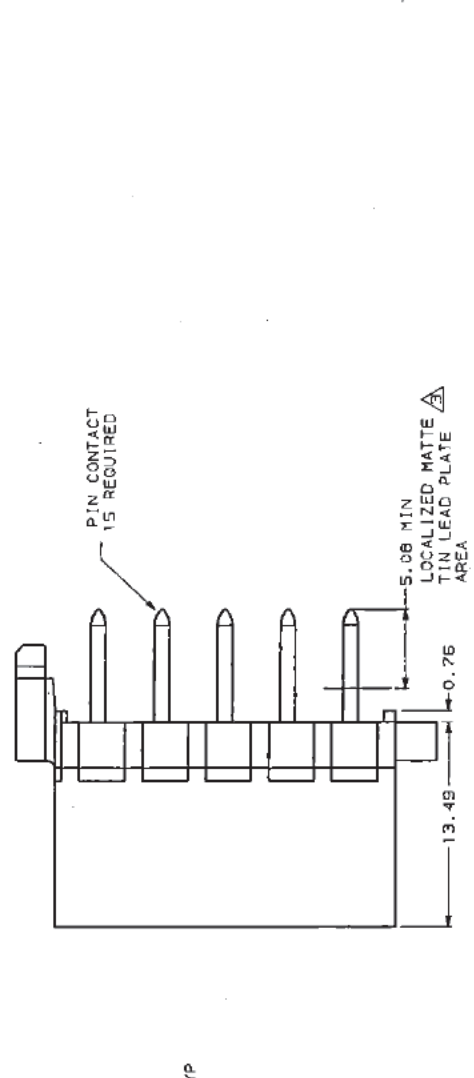
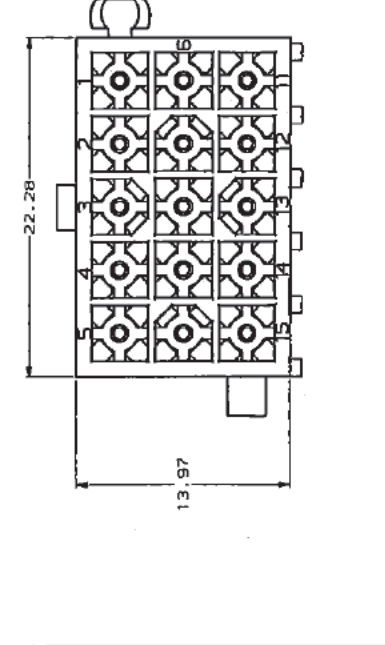
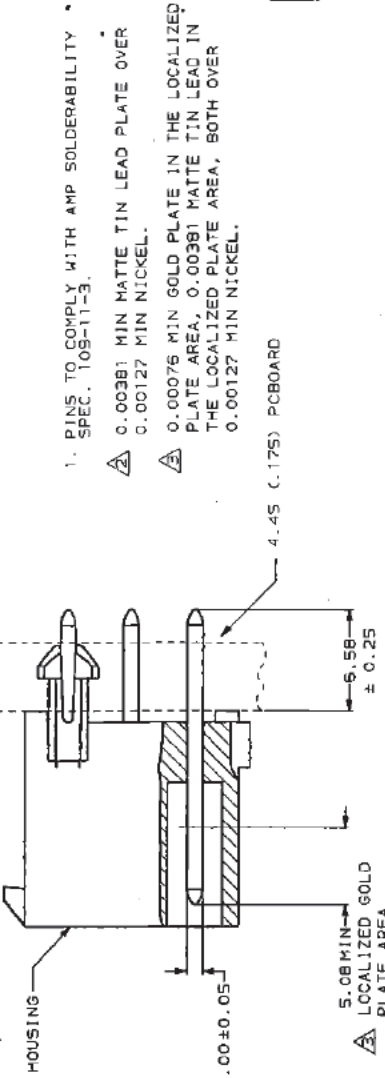
METRIC

794600 B

REV	DATE	DESCRIPTION	BY	CHKD
1	10-11-63	RELEASED PER PR CH 99-54		

REV	DATE	DESCRIPTION	BY	CHKD
1	10-11-63	RELEASED PER PR CH 99-54		

REV	DATE	DESCRIPTION	BY	CHKD
1	10-11-63	RELEASED PER PR CH 99-54		



- PINS TO COMPLY WITH AMP SOLDERABILITY SPEC. 109-11-3.
- 0.00381 MIN MATTE TIN LEAD PLATE OVER 0.00127 MIN NICKEL.
- 0.00076 MIN GOLD PLATE IN THE LOCALIZED PLATE AREA, 0.00381 MATTE TIN LEAD IN THE LOCALIZED PLATE AREA, BOTH OVER 0.00127 MIN NICKEL.

CONVERSION TABLE			
MM		IN	
1.00	.039	22.28	.877
0.75	.030	13.97	.550
0.25	.010	13.49	.531
0.13	.005	6.53	.259
0.09	.003	5.08	.200
0.05	.002	4.45	.175
0.00381	.000150	4.14	.163
0.00127	.000050	3.18	.125
0.00076	.000030	1.40	.055

MATERIAL	FINISH	PIN	HOUSING	MATERIAL	UL94V-0	COLOR	PART NO
BRASS	GOLD	15	NYLON	UL94V-0	WHITE	794701-2	
BRASS	TIN LEAD	15	NYLON	UL94V-0	WHITE	794701-1	

THIS DRAWING IS A CONTROLLED DOCUMENT.

AMP Incorporated
MORTFORD, PA 17055-3608

MINI UNIVERSAL MATE-N-LOK™
HEADER ASSEMBLY, 15 CIRCUIT

AMP Incorporated
MORTFORD, PA 17055-3608

MINI UNIVERSAL MATE-N-LOK™
HEADER ASSEMBLY, 15 CIRCUIT

794701

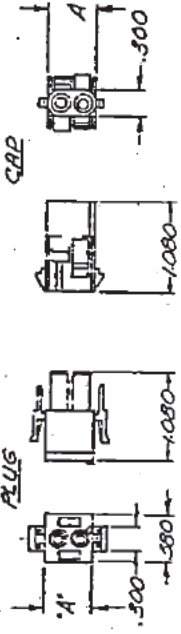
METRIC

ALL DIMENSIONS, HEIGHTS, PRESSURES, AMP RATINGS ARE APPROXIMATE PRODUCTS OF U. S. AND P. PATENTED AND/OR PENDING PATENTS.

DATE: 11/17/61

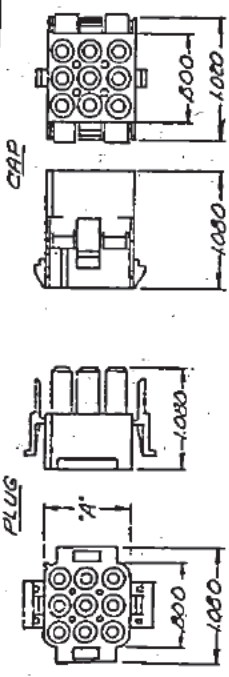
DESCRIPTION

HOUSINGS
3, 4, AND 5 CIRCUITS



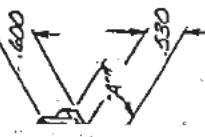
NO. OF CIRCUITS	DIM. "A"	PLUG		CAP	
		AMP	CUSTOMER	AMP	CUSTOMER
3	.550	1480233-0	✓	1480239-0	✓
4	.800	1480700-0	✓	1480701-0	✓
5	1.050	1480702-0	✓	1480703-0	✓
6	1.300	1480703-0	✓	1480704-0	✓

6, 9, 12, AND 15 CIRCUITS



NO. OF CIRCUITS	DIM. "A"	PLUG		CAP	
		AMP	CUSTOMER	AMP	CUSTOMER
6	.550	1480704-0	✓	1480705-0	✓
9	.800	1480705-0	✓	1480706-0	✓
12	1.050	1480706-0	✓	1480707-0	✓
15	1.300	1480707-0	✓	1480708-0	✓

STRAIN RELIEF CLAMP

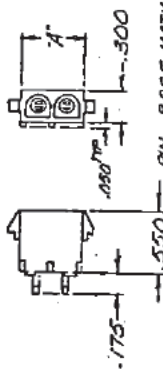


NO. OF CIRCUITS	DIM. "A"	BUNDLE		PART NUMBERS	
		DIA.	B/TG	AMP	CUSTOMER
3, 4, 5	.910	1/16	✓	1480559-0	✓
6, 9, 12, 15	1.260	1/8	✓	1480590-0	✓

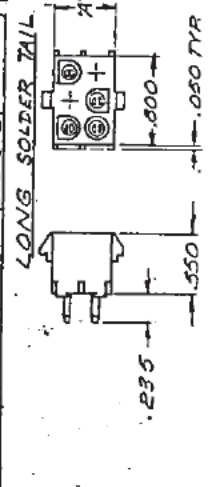
NUMBERS SHOWN ARE FOR NATURAL NYLON
S. NEMA COLORS AVAILABLE UPON REQUEST.

CT. SPECIFICATION SHEET # 108-1051.

PIN HEADERS
SHORT SOLDER TAIL



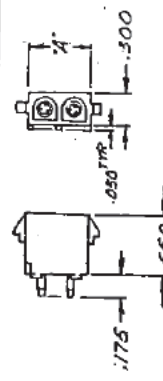
NO. OF CIRCUITS	DIM. "A"	PRE-TIN PINS		GOLD PINS	
		AMP	CUSTOMER	AMP	CUSTOMER
2	.550	350428-1	✓	350428-2	✓
3	.800	350429-1	✓	350429-2	✓
4	1.050	350430-1	✓	350430-2	✓
6	.550	350431-1	✓	350431-2	✓
9	.800	350432-1	✓	350432-2	✓
12	1.050	350433-1	✓	350433-2	✓
15	1.300	350434-1	✓	350434-2	✓



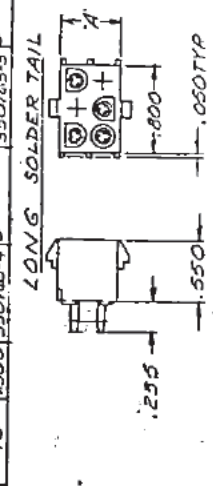
PIN BASE MATL. BRASS

NO. OF CIRCUITS	DIM. "A"	PRE-TIN PINS		GOLD PINS	
		AMP	CUSTOMER	AMP	CUSTOMER
2	.550	350583-1	✓	350583-2	✓
3	.800	350584-1	✓	350584-2	✓
4	1.050	350585-1	✓	350585-2	✓
6	.550	350586-1	✓	350586-2	✓
9	.800	350587-1	✓	350587-2	✓
12	1.050	350588-1	✓	350588-2	✓
15	1.300	350589-1	✓	350589-2	✓

SOCKET HEADERS
SHORT SOLDER TAIL



NO. OF CIRCUITS	DIM. "A"	PRE-TIN SKTS		GOLD SKTS	
		AMP	CUSTOMER	AMP	CUSTOMER
2	.550	350759-4	✓	350759-3	✓
3	.800	350760-4	✓	350760-3	✓
4	1.050	350761-4	✓	350761-3	✓
6	.550	350762-4	✓	350762-3	✓
9	.800	350763-4	✓	350763-3	✓
12	1.050	350764-4	✓	350764-3	✓
15	1.300	350765-4	✓	350765-3	✓



KA 7189A-381 FIG. 1

CUSTOMER'S NAME:

CONTRACT NO. DR. **AC. WILGARD 7-21-2**

CITY: **PHILADELPHIA, PA.**

NAME: **AMP INCORPORATED**

APPROVED BY: **J.B.L.S.**

MATERIAL: **NYLON 94 V-2**

FINISH: **NATURAL**

OTHER APPD:

PART NO. **UNIVERSAL MATE-N-LOK HOUSINGS & HEADERS**

SIZE CODE (CART. NO.) NUMBER: **C 00779**

SCALE: **CAPE-208**

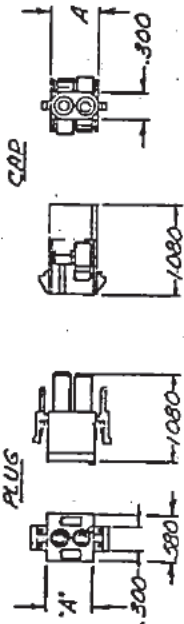
REV. ID: **1**

SHEET / OF 4: **1 / 4**

CUSTOMER DRAWING

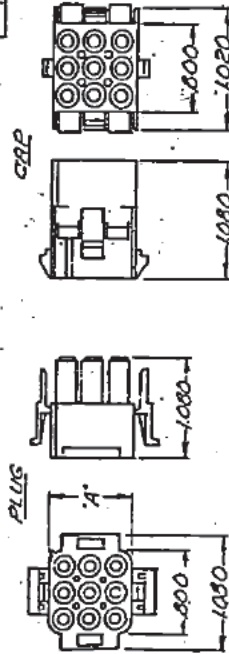
All dimensions, unless otherwise specified, are in inches and fractions thereof.

HOUSINGS
2, 3, 4, AND 5 CIRCUITS



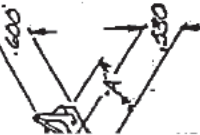
NO. OF CIRCUITS	DIM. 'A'	PLUG		CAP	
		AMP	CUSTOMER	AMP	CUSTOMER
2	.550	350717-1	✓	350718-1	✓
3	.800	350766-1	✓	350767-1	✓
4	1.050	350779-1	✓	350780-1	✓
5	1.300	350809-1	✓	350810-1	✓

6, 9, 12, AND 15 CIRCUITS



NO. OF CIRCUITS	DIM. 'A'	PLUG		CAP	
		AMP	CUSTOMER	AMP	CUSTOMER
6	.550	350751-1	✓	350752-1	✓
9	.800	350780-1	✓	350781-1	✓
12	1.050	350785-1	✓	350786-1	✓
15	1.300	350790-1	✓	350791-1	✓

STRAIN RELIEF CLAMP

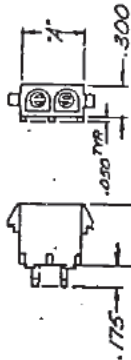


NO. OF CIRCUITS	DIM. 'A'	BUNDLE		PART NUMBERS	
		AMP	CUSTOMER	AMP	CUSTOMER
2, 3, 4, 5	.910	316	✓	350811-1	✓
6, 9, 12, 15	1.260	112	✓	350812-1	✓

LECT. SPECIFICATION SHEET 105-1031.

PIN LEADERS

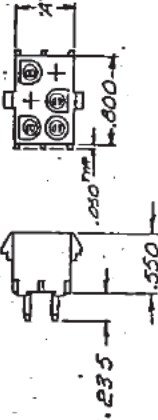
SHORT SOLDER TAIL



PIN BASE MATL: BRASS

NO. OF CIRCUITS	DIM. 'A'	PRE-TIN PINS		GOLD PINS	
		AMP	CUSTOMER	AMP	CUSTOMER
2	.550	350786-1	✓	350787-2	✓
3	.800	350789-1	✓	350790-2	✓
4	1.050	350792-1	✓	350793-2	✓
6	.550	350794-1	✓	350795-2	✓
9	.800	350797-1	✓	350798-2	✓
12	1.050	350799-1	✓	350800-2	✓
15	1.300	350802-1	✓	350803-2	✓

LONG SOLDER TAIL

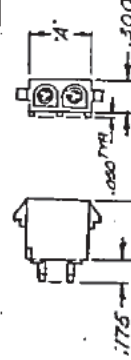


PIN BASE MATL: BRASS

NO. OF CIRCUITS	DIM. 'A'	PRE-TIN PINS		GOLD PINS	
		AMP	CUSTOMER	AMP	CUSTOMER
2	.550	350787-1	✓	350787-2	✓
3	.800	350790-1	✓	350790-2	✓
4	1.050	350793-1	✓	350793-2	✓
6	.550	350794-1	✓	350794-2	✓
9	.800	350797-1	✓	350797-2	✓
12	1.050	350799-1	✓	350799-2	✓
15	1.300	350802-1	✓	350802-2	✓

SOCKET HEADERS

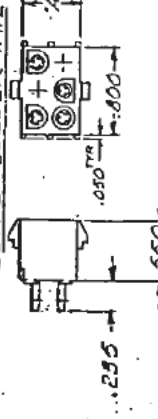
SHORT SOLDER TAIL



SKT. BASE MATL: PHOS. BRONZE

NO. OF CIRCUITS	DIM. 'A'	PRE-TIN SKTS		GOLD SKTS	
		AMP	CUSTOMER	AMP	CUSTOMER
2	.550	350824-1	✓	350824-2	✓
3	.800	350825-1	✓	350825-2	✓
4	1.050	350826-1	✓	350826-2	✓
6	.550	350827-1	✓	350827-2	✓
9	.800	350828-1	✓	350828-2	✓
12	1.050	350829-1	✓	350829-2	✓
15	1.300	350830-1	✓	350830-2	✓

LONG SOLDER TAIL



SKT. BASE MATL: PHOS. BRONZE

NO. OF CIRCUITS	DIM. 'A'	PRE-TIN SKTS		GOLD SKTS	
		AMP	CUSTOMER	AMP	CUSTOMER
2	.550	350831-1	✓	350831-2	✓
3	.800	350832-1	✓	350832-2	✓
4	1.050	350833-1	✓	350833-2	✓
6	.550	350834-1	✓	350834-2	✓
9	.800	350835-1	✓	350835-2	✓
12	1.050	350836-1	✓	350836-2	✓
15	1.300	350837-1	✓	350837-2	✓

FR-7189A-381-FA-2

CUSTOMER'S NAME:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON DIMENSIONS: ANGLES ±.015

CONTRACT NO. DR. DC. UNLESS OTHERWISE SPECIFIED. CHK.

NAME: AMP INCORPORATED, Phoenix, Pa.

PART NO.

UNIVERSAL MATE-N-LOK HOUSINGS & HEADERS

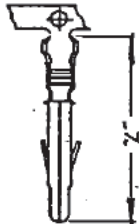
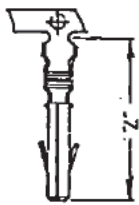
SIZE CODE IDENT. NO. NUMBER

C 00779 CAPE 208

REV. D

SCALE: SHEET 2 of 4

CONTACTS



SOCKET

PIN (STANDARD)

PIN (SPLIT)

- △ GROUNDING PIN CONTACT IS .100 LONGER THAN RELATED M-M-L PIN TO PROVIDE A MATE-FIRST, BREAK-LAST SITUATION.
- △ GOLD PLATED CONTACT AVAILABLE UPON REQUEST. 3. SPLIT PINS RECOMMENDED FOR G-THRU'S CIRCUIT HOUSING.
- △ PHOS. BRONZE MATERIAL AVAILABLE UPON REQUEST.
- 5. INSERTION TOOL *455830-1
- 6. EXTRACTION TOOL *458994-1
- 7. PRODUCT SPECIFICATION SHEET *108-1031.

WIRE SIZE RANGE (AWG)	INS. DIA.		Z' DIM.		STRIP FORM CONTACT NO.			LOOSE PIECE CONTACT NO.			HAND TOOL NO.
	PINS	SOCKETS	PIN	SOCKET	AMP	CUSTOMER	SOCKET	PIN	CUSTOMER	SOCKET	
20-14	.150	.790	.760	.760	550536-1	550547-1	550550-1	550547-1	550550-1	550550-1	90296-1
20-18	.200	.810	.780	.780	350537-1	350537-1	350551-1	350537-1	350551-1	350551-1	90298-1
16-14	.100	.790	.760	.760	550530-1	550530-1	350559-1	550530-1	350559-1	350559-1	90299-1
20-14	.150	.870	.850	.850	350634-1	350634-1	350669-1	350634-1	350669-1	350669-1	90296-1

GROUNDING PIN CONTACT

WIRE SIZE RANGE (AWG)	INS. DIA.	Z' DIM.	PIN	SOCKET	AMP	CUSTOMER	SOCKET	PIN	CUSTOMER	SOCKET	HAND TOOL NO.
20-14	.150	.790						550706-1			90296-1
20-18	.200	.810						550707-1			90298-1
24-18	.100	.790						350706-1			90299-1
											90300-1

PIN (SPLIT)

LR 7189A-301 FIG 3

CUSTOMER'S NAME:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON DECIMALS: .015 ANGLES

MATERIAL: BRASS

FINISH: PRE-TIN

CONTRACT NO. DR: AC WINGARD & SONS

AMP Incorporated

UNIVERSAL MATE-N-LOK CONTACTS

SIZE CODE IDENT NO NUMBER: C 00779

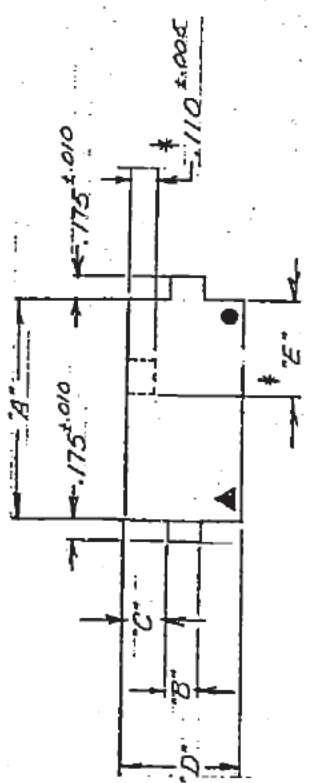
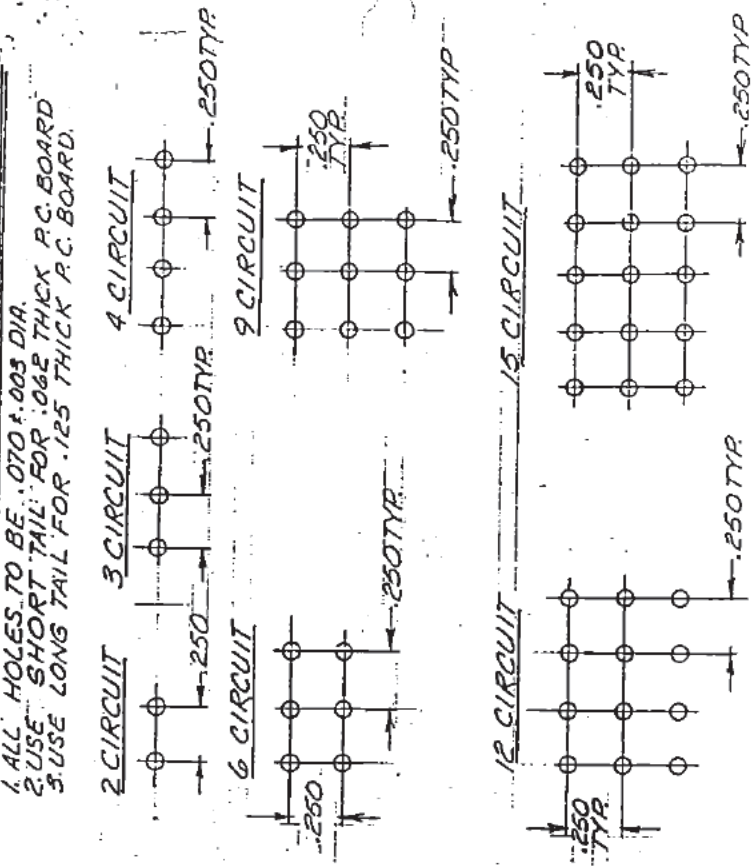
SCALE: CAPE-208

SHEET 3 of 4

CUSTOMER DRAWING

PC BOARD HEADER MOUNTING DIMENSIONS

1. ALL HOLES TO BE .070 ± .005 DIA.
2. USE SHORT TAIL FOR .06E THICK P.C. BOARD
3. USE LONG TAIL FOR .125 THICK P.C. BOARD.



PANEL CUTOUT FOR CAP HOUSINGS

NO. OF CIRCUITS	DIMENSIONS			
	A ± .005	B ± .010	C ± .010	D ± .005
2	.565	.340	.095	.530
3	.815	.340	.095	.530
4	1.065	.340	.095	.530
5	1.315	.340	.095	.530
6	.565	.480	.275	1.030
9	.815	.480	.275	1.030
12	1.065	.480	.275	1.030
15	1.315	.480	.275	1.030

- * OPTIONAL FOR KEYING HOUSING INTO PANEL
- ▲ CIRCUIT # 1. LOCATION: 6, 9, 12 & 15 CIRCUIT CAPS
- CIRCUIT # 1. LOCATION: 2, 3, 4, & 5 CIRCUIT CAPS
- RECOMMENDED PANEL THICKNESS .080-.090.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DECIMALS ON 1/16 ANGLES ON 1/8	CONTRACT NO. DR. D.C. WINGGARDT'S	AMP INCORPORATED Hermitage, Pa.	PART NO.
MATERIAL: /	APPROVED BY: [Signature]	NAME: UNIVERSAL MATE-N-LOK PANEL CUTOUT & HEADER MOUNTING DIMENSIONS	DRAWING NO. CAPE-208
FINISH: /	DESK APPD: /	SIZE: B	SCALE:
OTHER APPD: /	PART NO.	CODE IDENT NO. 00779	SHEET 4 OF 4

CUSTOMER DRAWING

~~LR 7189A-301~~ **FIG. 4**

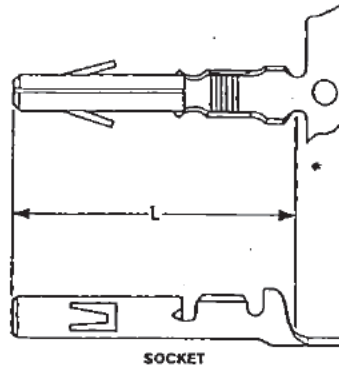
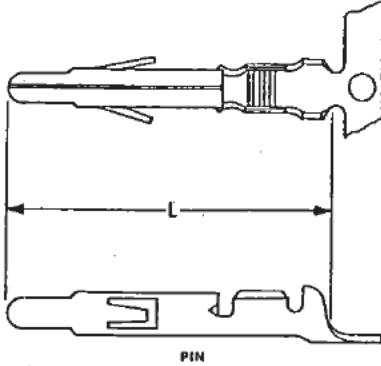
Universal
MATE-N-LOK
Contacts

NO
LR 7189A-381
FIG. 5

Dimensioning:

- All dimensions in inches and millimetres. Values in brackets are metric equivalents.
- Charts contain dimensions in inches over millimetres.

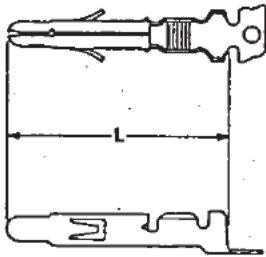
Universal Contacts — Pins and sockets can be used in either plug or cap housings



Wire Size Range AWG	mm ²	Ins. Dia. (Max.)	Stock Thickness	L Dim.		Material and Finish	Strip Form Contact No.		Loose Piece Contact No.		Part Tool No.
				Pin	Socket		Pin	Socket	Pin	Socket	
24-18	0.2-0.9	.100 2.54	.012* 0.3*	.790	.760	Brass, Pre-tin	350561-1	350570-1	350690-1	350699-1	90300-1
				20.07	19.3	Brass, Gold	350561-2	350570-2	350690-2	350699-2	
				20.07	19.3	Brass, Select Gold	350561-7	350570-7	350690-7	350699-7	
20-14	0.5-2	.130 3.31	.012 0.3	.790	.760	Brass, Pre-tin	350218-1	350536-1	350547-1	350550-1	90298-1
				20.07	19.3	Brass, Gold	350218-2	350536-2	350547-2	350550-2	
				20.07	19.3	Brass, Select Gold	350218-7	350536-7	350547-7	350550-7	
				20.07	19.3	Phos. Bronze, Pre-tin	350218-3	350536-3	—	350550-3	
				20.07	19.3	Phos. Bronze, Select Gold	350218-6	350536-6	—	—	
20-18	0.5-0.9	.200 5.08	.012 0.3	.810	.780	Brass, Pre-tin	350538-1	350537-1	350552-1	350551-1	90298-1
				20.57	19.81	Brass, Gold	350538-2	350537-2	350552-2	350551-2	
				20.57	19.81	Brass, Select Gold	350538-7	350537-7	350552-7	350551-7	
				20.57	19.81	Phos. Bronze, Pre-tin	350538-3	350537-3	—	—	
				20.57	19.81	Phos. Bronze, Select Gold	350538-6	350537-6	—	—	
16-14	1.25-2	.200 5.08	.012 0.3	.810	.780	Brass, Pre-tin	350538-1	350537-1	350552-1	350551-1	90298-1
				20.57	19.81	Brass, Gold	350538-2	350537-2	350552-2	350551-2	
				20.57	19.81	Brass, Select Gold	350538-7	350537-7	350552-7	350551-7	
				20.57	19.81	Phos. Bronze, Pre-tin	350538-3	350537-3	—	—	
				20.57	19.81	Phos. Bronze, Select Gold	350538-6	350537-6	—	—	

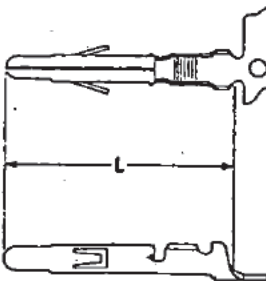
*Socket Contact—.010 [0.25].
Contact Extraction Tool Part No. 458994-1.
Contact Insertion Tool Part No. 458930-1.

Split Pins — Can be used in either plug or cap housings



Wire Size Range AWG	mm ²	Ins. Dia. (Max.)	Stock Thickness	L Dim.	Material and Finish	Strip Form Contact No.	Loose Piece Contact No.	Part Tool No.
24-18	0.2-0.9	.100 2.54	.012 0.3	.790	Brass, Pre-tin	350699-1	350705-1	90300-1
				20.07	Brass, Gold	350699-2	350705-2	
				20.07	Brass, Select Gold	350699-7	350705-7	
20-14	0.5-2	.130 3.31	.012 0.3	.790	Brass, Pre-tin	350687-1	350705-1	90298-1
				20.07	Brass, Gold	350687-2	350705-2	
				20.07	Brass, Select Gold	350687-7	350705-7	
20-18	0.5-0.9	.200 5.08	.012 0.3	.810	Brass, Pre-tin	350700-1	350707-1	90298-1
				20.57	Brass, Gold	350700-2	350707-2	
				20.57	Brass, Select Gold	350700-7	350707-7	
16-14	1.25-2	.200 5.08	.012 0.3	.810	Brass, Pre-tin	350700-1	350707-1	90298-1
				20.57	Brass, Gold	350700-2	350707-2	
				20.57	Brass, Select Gold	350700-7	350707-7	

Grounding Pin (.100 longer) — Can be used in either plug or cap housings



Wire Size Range AWG	mm ²	Ins. Dia. (Max.)	Stock Thickness	L Dim.	Material and Finish	Strip Form Contact No.	Loose Piece Contact No.	Part Tool No.
20-14	0.5-2	.130 3.31	.012 0.3	.890 22.61	Brass, Pre-tin	350654-1	350559-1	90298-1

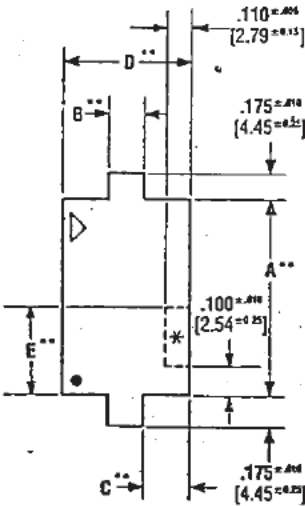
Universal MATE-N-LOK Connectors

Dimensioning:
1. All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

NOTE:

Part numbers shown are for natural nylon color. NEMA colors available upon request. Contacts are on .250 [6.35] centerline spacing.

**Cap Housing
Panel Cutout**



NOTE:

Recommended panel thickness — .030 [0.76] to .090 [2.29]

Panel must be punched so that housing enters panel in same direction as the punch.

* Optional for keying housing to panel.

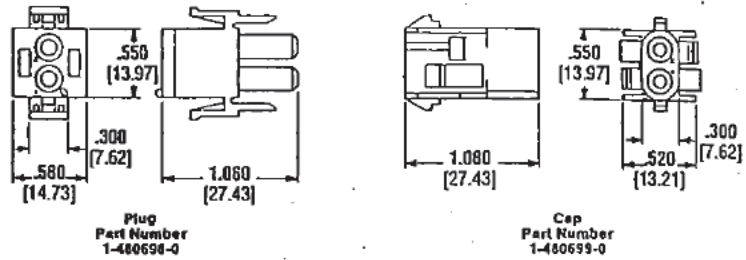
▲ Circuit #1 location when using panel keying with 6, 9, 12 and 15 circuit.

● Circuit #1 location when using panel keying with 2, 3, 4 and 5 circuit.

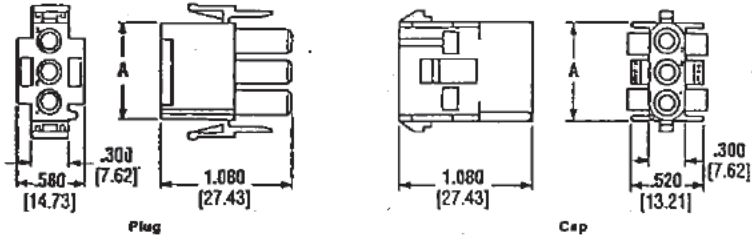
No. of Circuits	Dimensions **				
	A	B	C	D	E
2	.565	.340	.095	.520	.250
	14.35	8.64	2.41	13.46	6.35
3	.815	.340	.095	.530	.250
	20.7	8.64	2.41	13.46	6.35
4	1.065	.340	.095	.530	.250
	27.05	8.64	2.41	13.46	6.35
5	1.315	.340	.095	.530	.250
	33.4	8.64	2.41	13.46	6.35
6	.565	.480	.275	1.030	.350
	14.35	12.19	6.99	26.16	8.89
9	.815	.480	.275	1.030	.350
	20.7	12.19	6.99	26.16	8.89
12	1.065	.480	.275	1.030	.350
	27.05	12.19	6.99	26.16	8.89
15	1.315	.480	.275	1.030	.350
	33.4	12.19	6.99	26.16	8.89

** Dimensional tolerances are: ±.005 [0.13] for dims. A and D; ±.010 [0.25] for dims. B, C and E.

2 Circuit (Material: Nylon, natural color)



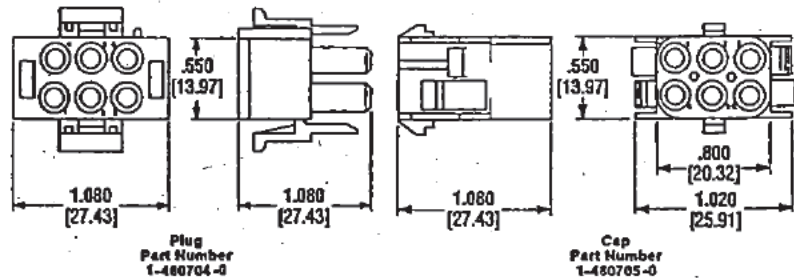
3, 4 and 5 Circuit (Material: Nylon, natural color)



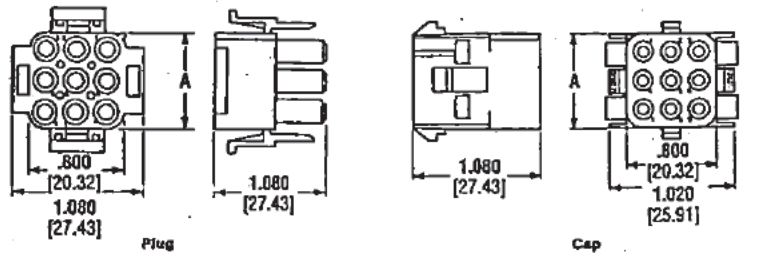
No. of Circuits	A Dim.	Housing Part Numbers	
		Plug	Cap
3	.800 20.32	1-480700-0 ✓	1-480701-0 ✓
4	1.050 26.67	1-480702-0 ✓	1-480703-0 ✓
5	1.300 33.02	1-480763-0 ✓	1-480764-0 ✓

NOTE: 5 position cavity identification located on side of housing.

6 Circuit (Material: Nylon, natural color)



9, 12 and 15 Circuit (Material: Nylon, natural color)



No. of Circuits	A Dim.	Housing Part Numbers	
		Plug	Cap
9	.800 20.32	1-480706-0 ✓	1-480707-0 ✓
12	1.050 26.67	1-480708-0 ✓	1-480709-0 ✓
15	1.300 33.02	1-480710-0 ✓	1-480711-0 ✓

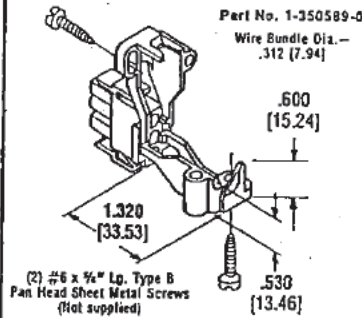
Universal MATE-N-LOK Connectors

Dimensioning:

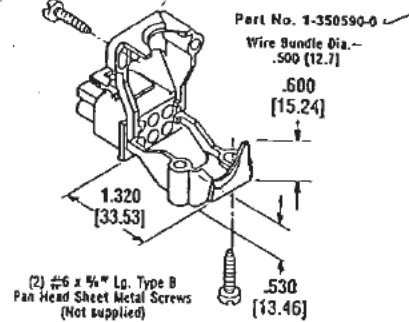
- All dimensions in inches and millimetres. Values in brackets are metric equivalents.
- Charts contain dimensions in inches over millimetres.

Strain Reliefs

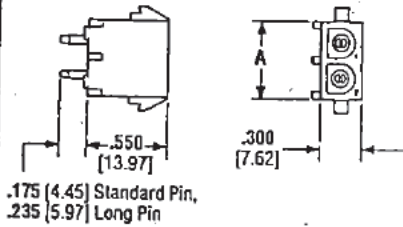
2, 3 and 4 Circuit



6, 9, 12 and 15 Circuit



Printed Circuit Board Pin Header Assemblies



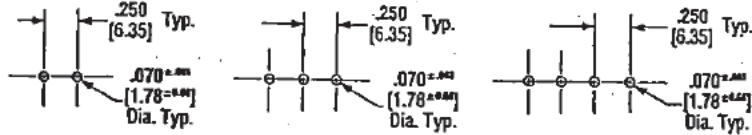
2, 3 and 4 Circuit

Housing Material: Nylon, natural color (NEMA colors available)

No. of Circuits	Assembly Part Number		A Dim.	Pin Material and Finish	Mates with Plug Housing Part Number (Using Socket Contacts)
	Standard Pin*	Long Pin**			
2	350428-1 ✓	350582-1 ✓	.550	Brass, Pre-tin	1-480698-0 ✓
	350428-2 ✓	350582-2 ✓	13.97	Brass, Gold	
3	350429-1 ✓	350583-1 ✓	.800	Brass, Pre-tin	1-480700-0 ✓
	350429-2 ✓	350583-2 ✓	20.32	Brass, Gold	
4	350430-1 ✓	350584-1 ✓	1.050	Brass, Pre-tin	1-480702-0 ✓
	350430-2 ✓	350584-2 ✓	26.67	Brass, Gold	

*Use Standard Pin for .062 [1.57] thick printed circuit board.
**Use Long Pin for .125 [3.18] thick printed circuit board.

Mounting Dimensions



6, 9, 12 and 15 Circuit

Housing Material: Nylon, natural color (NEMA colors available)

No. of Circuits	Assembly Part Number		A Dim.	Pin Material and Finish	Mates with Plug Housing Part Number (Using Socket Contacts)
	Standard Pin*	Long Pin**			
6	350431-1 ✓	350585-1 ✓	.550	Brass, Pre-tin	1-480704-0 ✓
	350431-2 ✓	350585-2 ✓	13.97	Brass, Gold	
9	350432-1 ✓	350586-1 ✓	.800	Brass, Pre-tin	1-480706-0 ✓
	350432-2 ✓	350586-2 ✓	20.32	Brass, Gold	
12	350433-1 ✓	350587-1 ✓	1.050	Brass, Pre-tin	1-480708-0 ✓
	350433-2 ✓	350587-2 ✓	26.67	Brass, Gold	
15	350434-1 ✓	350588-1 ✓	1.300	Brass, Pre-tin	1-480710-0 ✓
	350434-2 ✓	350588-2 ✓	33.02	Brass, Gold	

*Use Standard Pin for .062 [1.57] thick printed circuit board.
**Use Long Pin for .125 [3.18] thick printed circuit board.

Mounting Dimensions

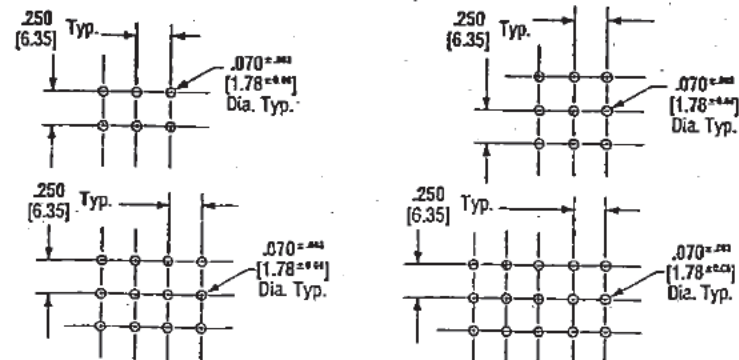


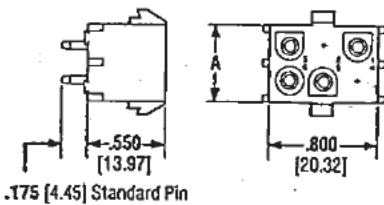
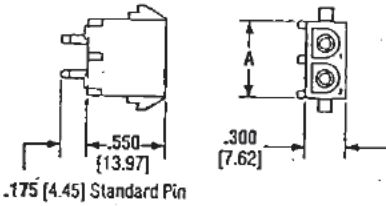
FIG 32

Master Contract 164196
Certificate 1030930
Project: 1115824
(Old Report LR7189-549)

Universal MATE-N-LOK Connectors

Dimensioning:
1. All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
2. Charts contain dimensions in inches over millimetres.

Printed Circuit Board Socket Header Assemblies

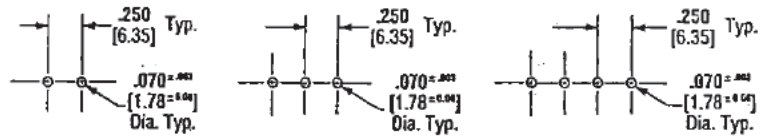


2, 3 and 4 Circuit

Housing Material: Nylon, natural color (NEMA colors available)

No. of Circuits	Assembly Part Number	A Dim.	Socket Material and Finish	Mates with Plug Housing Part Number (Using Pin Contacts)
2	350759-4 ✓	.550	Phos. Bronze, Pre-tin	1-480698-0 ✓
	350759-3 ✓	13.97	Phos. Bronze, Gold	
3	350760-4 ✓	.800	Phos. Bronze, Pre-tin	1-480700-0 ✓
	350760-3 ✓	20.32	Phos. Bronze, Gold	
4	350761-4 ✓	1.050	Phos. Bronze, Pre-tin	1-480702-0 ✓
	350761-3 ✓	26.67	Phos. Bronze, Gold	

Mounting Dimensions

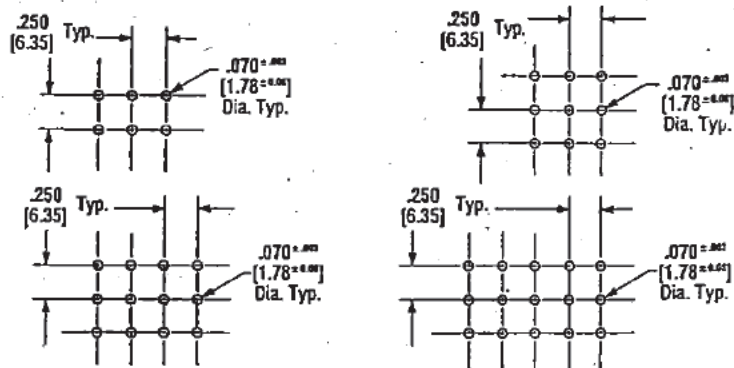


6, 9, 12 and 15 Circuit

Housing Material: Nylon, natural color (NEMA colors available)

No. of Circuits	Assembly Part Number	A Dim.	Socket Material and Finish	Mates with Plug Housing Part Number (Using Pin Contacts)
6	350762-4 ✓	.550	Phos. Bronze, Pre-tin	1-480704-0 ✓
	350762-3 ✓	13.97	Phos. Bronze, Gold	
9	350763-4 ✓	.800	Phos. Bronze, Pre-tin	1-480706-0 ✓
	350763-3 ✓	20.32	Phos. Bronze, Gold	
12	350764-4 ✓	1.050	Phos. Bronze, Pre-tin	1-480708-0 ✓
	350764-3 ✓	26.67	Phos. Bronze, Gold	
15	350765-4 ✓	1.300	Phos. Bronze, Pre-tin	1-480710-0 ✓
	350765-3 ✓	33.02	Phos. Bronze, Gold	

Mounting Dimensions

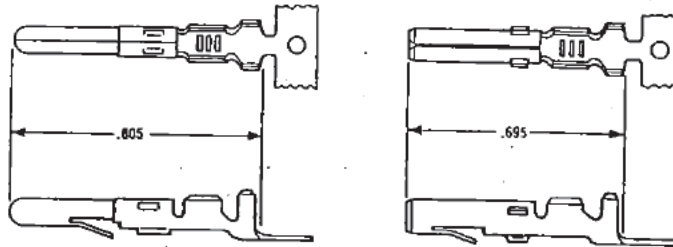


Commercial MATE-N-LOK Contacts

To meet the varied requirements of industry, the MATE-N-LOK contact line is available in a variety of forms.

Application rate and requirements dictate your choice of either side feed or end feed. Circuitry and environment determines your choice of material and plating. Circuitry also dictates your wire size range. All these factors have been taken into consideration in the building of MATE-N-LOK Contact Specifications to assure you of maximum selectivity to meet the applicable requirements.

Side Feed Contacts for Commercial and European Housings Only

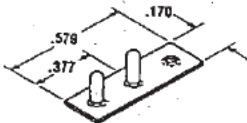


Wire Size # AWG	Insulation Range (Dimension in Inches)	Pin Part Number (.084 Diameter)		Socket Part Number		Material and Finish	Stock Thickness	Hand Tool
		Strip Form	Loose Piece	Strip Form	Loose Piece			
30-22	.075 Max.	350079-1	61174-1	350078-1	61173-1	Brass—Tin Plated	.012	90066-5
		350079-2	—	350078-2	—	Brass—Unplated		
		350079-3	—	350078-3	—	Phos. Bronze—Unplated		
		350079-4	—	350078-4	—	Phos. Bronze—Tin Plated		
		350079-5	61174-5	350078-5	61173-5	Brass—Gold over Nickel Plated		
30-22	.075 Max.	—	—	350178-1	350182-1	Brass—Tin Plated	.010	90066-5
		—	—	350178-2	350182-2	Brass—Unplated		
		—	—	350178-3	350182-3	Phos. Bronze—Unplated		
		—	—	350178-4	350182-4	Phos. Bronze—Tin Plated		
		—	—	350178-5	350182-5	Brass—Gold over Nickel Plated		
Two #18 or one #18 and one #16	Two .115 Max. Stacked	350558-1	350639-1	350557-1	350638-1	Brass—Tin Plated	.012	90124-2
		350558-2	350639-2	350557-2	350638-2	Brass—Unplated		
		350558-3	350639-3	350557-3	350638-3	Phos. Bronze—Unplated		
		350558-4	350639-4	350557-4	350638-4	Phos. Bronze—Tin Plated		
24-18	.100 Max.	61116-1	60618-1	61314-1	60617-1	Brass—Tin Plated	.012	90123-2 (90123-5 for .043 Minimum Insulation Diameter)
		61116-2	60618-2	61314-2	60617-2	Brass—Unplated		
		61116-3	60618-3	61314-3	60617-3	Phos. Bronze—Unplated		
		61116-4	60618-4	61314-4	60617-4	Phos. Bronze—Tin Plated		
		61116-5	60618-5	61314-5	60617-5	Brass—Gold over Nickel Plated		
		61116-6	60618-6	61314-6	60617-6	Phos. Bronze—Gold over Nickel Plated		
		61116-7	—	61314-7	—	Brass—Gold Flash		
24-18	.100 Max.	—	—	61115-1	61473-1	Brass—Tin Plated	.010	90123-2
		—	—	61115-2	61473-2	Brass—Unplated		
		—	—	61115-3	61473-3	Phos. Bronze—Unplated		
		—	—	61115-4	61473-4	Phos. Bronze—Tin Plated		
		—	—	61115-5	61473-5	Brass—Gold over Nickel Plated		
20-14	.130 Max.	61118-1	60620-1	61117-1	60619-1	Brass—Tin Plated	.012	90124-2
		61118-2	60620-2	61117-2	60619-2	Brass—Unplated		
		61118-3	60620-3	61117-3	60619-3	Phos. Bronze—Unplated		
		61118-4	60620-4	61117-4	60619-4	Phos. Bronze—Tin Plated		
		61118-5	60620-5	61117-5	60619-5	Brass—Gold over Nickel Plated		
		61118-6	—	61117-6	—	Phos. Bronze—Gold over Nickel Plated		
		61118-7	—	61117-7	—	Brass—Gold Flash		

Strip Form Contacts (For use in Miniature Applicators only).
Extraction Tools (For both Side and End Feed Contacts), Part No. 1-305183-1 for Pins only;
Part No. 1-305183-2 for Sockets only; Part No. 465644-1 for both Pins and Sockets.
Wire Strip Length: 3/8" for Machine Applications; 1/2" for Hand Tool Applications.
Insertion Tool Part No. 91002-1.

Commercial MATE-N-LOK Contacts (continued)

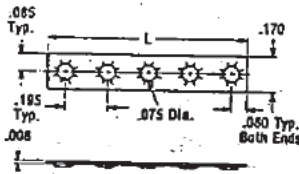
Commoning Tabs



Part No. 60843-1
2 Circuit

Part No. 60842-1
3 Circuit

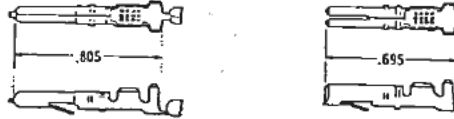
NOTE:
Part No. 60842-1 to be used to common any 3 adjacent terminals. Part No. 60843-1 to common any 2 adjacent terminals in the following circuit cavity groups of panel mount housing 1, 2, 3, or 4, 5, 6, or 7, 8, 9, or 10, 11, 12 or 13, 14, 15. Both are tin-plated brass.



For use with Motor Mount and Cap Mount Housings.

No. of Holes	L Dimension	Part Number
2	.355	350444-1
3	.550	350444-2
4	.745	350444-3
5	.940	350444-4
6	1.135	350444-5
7	1.130	350444-6
8	1.525	350444-7

End Feed Contacts for Commercial and European Housings Only



Wire Size # AWG	Insulation Range (Diacenters in inches)	Pin Part Number (.084 Diameter)		Socket Part Number		Material and Finish	Stock Thickness	Hand Tool
		Strip Form	Loose Piece	Strip Form	Loose Piece			
30-22	.075 Max.	60910-1	61174-1	60909-1	61173-1	Brass—Tin Plated	.012	90029-5
		60910-2	—	60909-2	—	Brass—Unplated		
		60910-3	—	60909-3	—	Phos. Bronze—Unplated		
		60910-4	—	60909-4	—	Phos. Bronze—Tin Plated		
		60910-5	61174-5	60909-5	61173-5	Brass—Gold over Nickel Plated		
Two #18 or one #18 and one #16	Two .115 Max. Stacked	60497-1	60616-1	60496-1	60615-1	Brass—Tin Plated	.012	50124-2
		60497-2	60616-2	60496-2	60615-2	Brass—Unplated		
		60497-3	60616-3	60496-3	60615-3	Phos. Bronze—Unplated		
		60497-4	60616-4	60496-4	60615-4	Phos. Bronze—Tin Plated		
24-18	.100 Max.	60511-1	60618-1	60510-1	60617-1	Brass—Tin Plated	.012	50123-2
		60511-2	60618-2	60510-2	60617-2	Brass—Unplated		
		60511-3	60618-3	60510-3	60617-3	Phos. Bronze—Unplated		
		60511-4	60618-4	60510-4	60617-4	Phos. Bronze—Tin Plated		
		60511-5	60618-5	60510-5	60617-5	Brass—Gold over Nickel Plated		
24-18	.130 Max.	61010-1	61109-1	61009-1	61108-1	Brass—Tin Plated	.012	20123-4
		61010-2	—	61009-2	—	Brass—Unplated		
		61010-5	—	61009-5	—	Brass—Gold over Nickel Plated		
20-14	.130 Max.	60528-1	60620-1	60527-1	60619-1	Brass—Tin Plated	.012	50124-2
		60528-2	60620-2	60527-2	60619-2	Brass—Unplated		
		60528-3	60620-3	60527-3	60619-3	Phos. Bronze—Unplated		
		60528-4	60620-4	60527-4	60619-4	Phos. Bronze—Tin Plated		
		60528-5	60620-5	60527-5	60619-5	Brass—Gold over Nickel Plated		

Extraction Tools (For both Side and End Feed Contacts). Part No. 1-305183-1 for Pins only; Part No. 1-305183-2 for Sockets only; Part No. 465944-1 for both Pins and Sockets. Wire Strip Length: $\frac{1}{8}$ " for Machine Applications; $\frac{1}{4}$ " for Hand Tool Applications. Insertion Tool Part No. 91602-1.

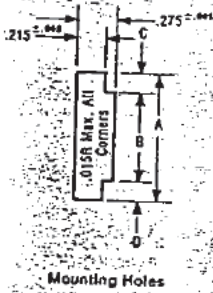
Special Contacts for Commercial and European Housings Only

Type of Contact	Loose Piece Pin Part No.	Loose Piece Socket Part No.	Material and Finish	Stock Thickness
Solder Tab Pin	60780-1	60662-1	Brass—Tin Plated	.012
Printed Circuit Board	61518-1*	61320-1*	Brass—Tin Plated	
	61518-2*	61320-2*	Brass—Gold Plated	
Pre-Crimped Pin for Commoning Tabs	350074-1**	350073-1**	Brass—Tin Plated	

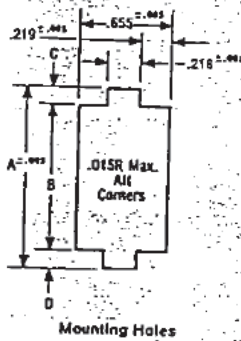
*For .062 Max. Board Thickness—Board Hole Size .057 ± .003.
**For .125 Max. Board Thickness—Board Hole Size .057 ± .003.

Commercial MATE-N-LOK
Panel Mount
Connectors

3 and 4 Circuits

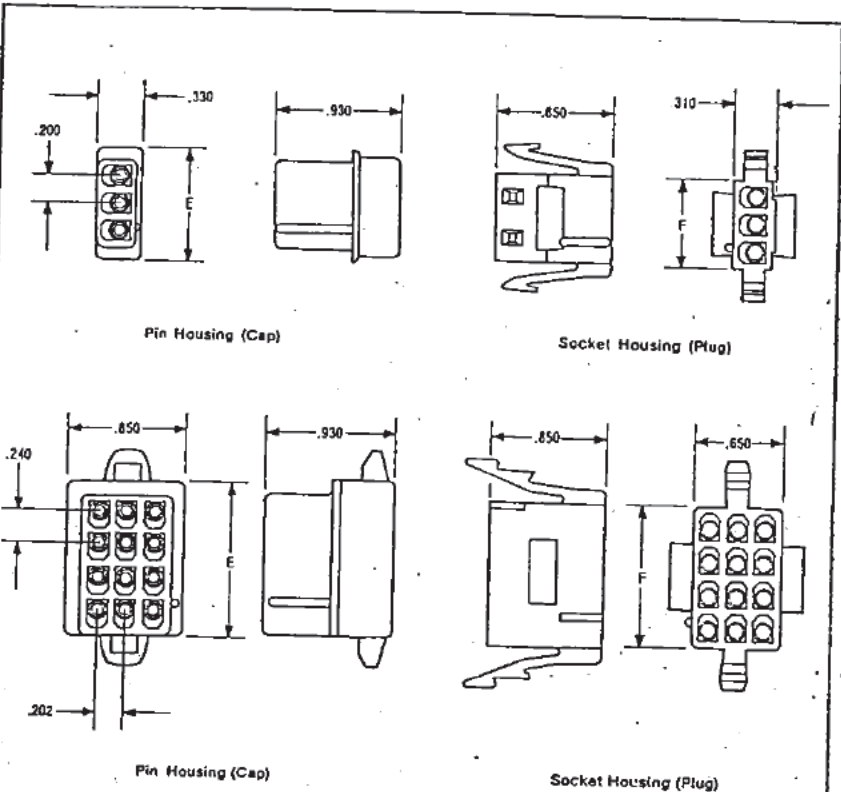


6, 9, 12 and 15 Circuits



Mounting Information
Socket Housing (Plug) Only

1. Recommended panel thickness .025-.065 inches.
2. Both locking legs to be squeezed together and housing to be inserted "straight-in," as opposed to a rocking manner of insertion.
3. The panel should be punched so that the housing enters the panel in the same direction as the punch for best retention.
4. Dimensions "C" and "D" to be equal within a tolerance of .005 inches.
5. Panel must not have any material (paint, porcelain, etc.) applied in the mounting hole area that would decrease retention of the housing in the panel.



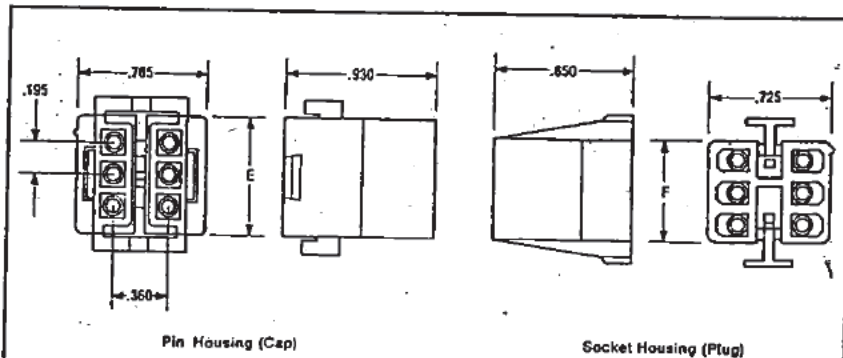
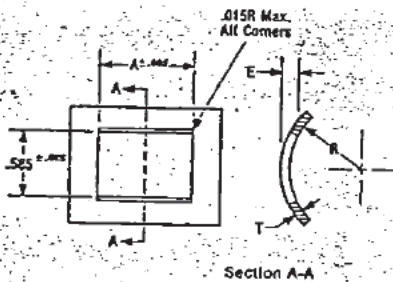
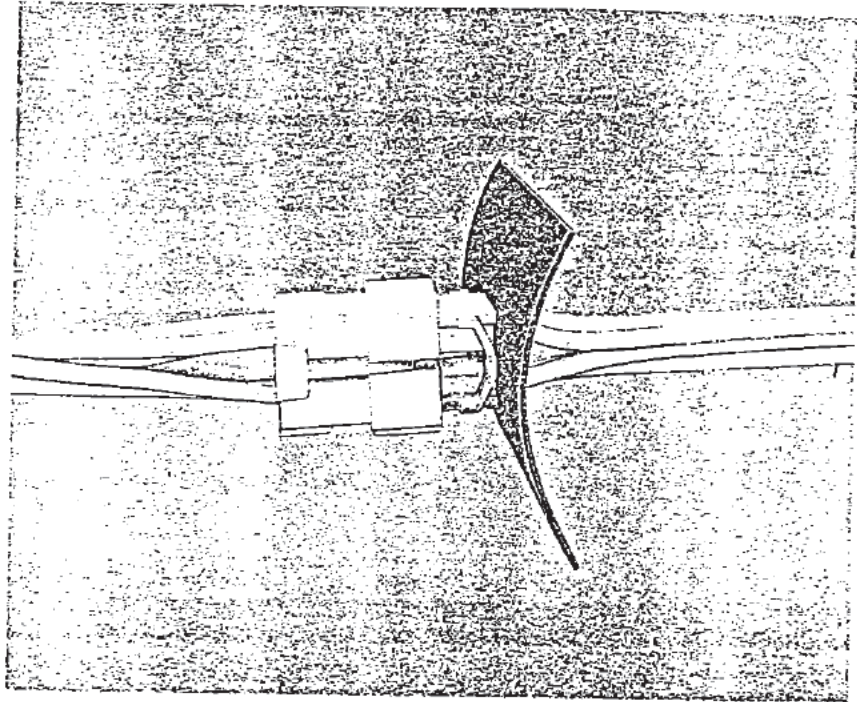
No. of Circuits	Pin Housing Part Number	E	Socket Housing Part Number	F	Mounting	
					A ± .005	B
3	1-480305-0	.810	1-480304-0	.630	.890	.645 / .635
4	1-480426-0	1.010	1-480425-0	.830	1.090	.845 / .835
6	1-480276-0	.665	1-480273-0	.565	.650	.875 / .870
9	1-480277-0	.905	1-480274-0	.805	1.065	.815 / .810
12	1-480278-0	1.145	1-480275-0	1.045	1.320	1.050 / 1.045
15	1-480324-0	1.382	1-480323-0	1.280	1.655	1.290 / 1.285

Unless Specified Tolerance ± .015.

Commercial MATE-N-LOK Motor Mount Connectors

6, 8, 10, 12 and 16 Circuits.

Designed to solve the assembly problems of motor manufacturers, it can also be used for cold side mounting in flat panels. This connector incorporates many of the features of its panel mount counterpart, plus a retention feature design which permits cold side snap-in mounting on the motor housing and fingertip release of the housing interlocks. The connector projects into the motor cavity only a short .10". Minimal projection allows for maximum use of space between the shell and motor windings and makes packing-in of conductor excess easier. This connector accommodates three wire size ranges #30-22, #24-18 and #20-14. Socket housings accept double wire applications where individual insulation diameters do not exceed .115 inches. Housings available: 6, 8, 10, 12 and 16 circuits.



Mounting Information Pin Housing (Cap) Only

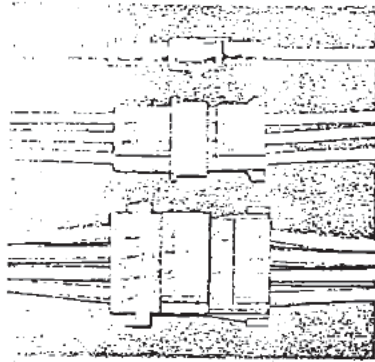
1. Effective panel thickness "E" is .040-.100 inches and is dependent on "T" and "R."
2. Pin housing must be inserted in a rocking manner.
3. The panel must be punched so that the housing enters the panel in the same direction as the punch.

NOTE:
Motor mount housings may be used in flat panels.

No. of Circuits	Pin Housing Part Number	E	Socket Housing Part Number	F	Mounting A
6	1-480271-0	.705	1-480270-0	.510	.715
8	1-480284-0	.900	1-480283-0	.805	.910
10	1-480286-0	1.095	1-480285-0	1.000	1.105
12	1-480288-0	1.290	1-480287-0	1.195	1.300
16	1-480439-0	1.680	1-480438-0	1.585	1.650

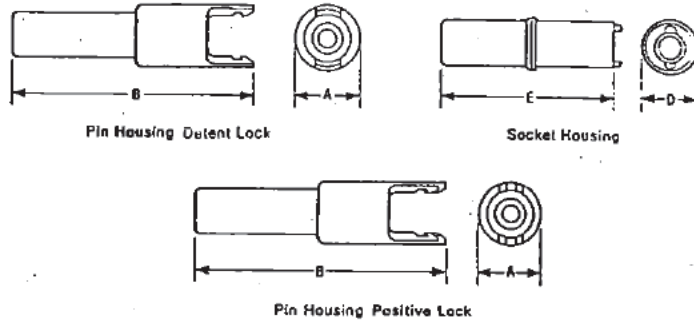
Unless Specified Tolerance $\pm .015$.

Commercial MATE-N-LOK Free Hanging Connectors

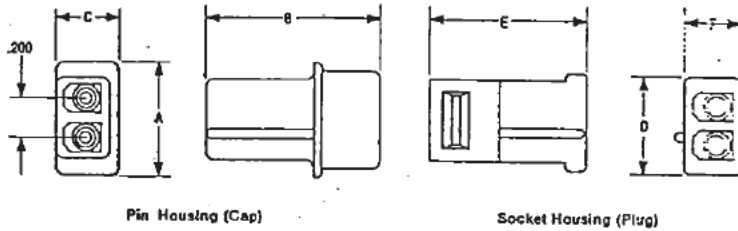


This version of the MATE-N-LOK Connector provides all the quality features of the panel mount and motor mount types, yet was designed for free-hanging installations. The 2, 3 and 4 circuit configurations feature detent locking housings while the 6, 8 and 10 circuit configurations utilize positive lock housings. A single circuit connector is available with an option of detent or positive lock housings. The multiple circuit configurations are polarized to assure proper electrical connection. The advantages of matched automatic machine crimping and snap-in contacts provide low applied cost and greater flexibility in system design. All configurations accommodate wire ranges #30-22, #24-18 and #20-14 AWG.

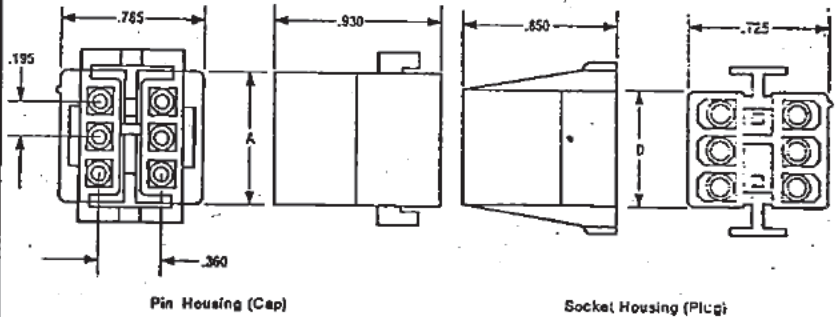
Single Circuit



2, 3 and 4 Circuits



6, 8 and 10 Circuits



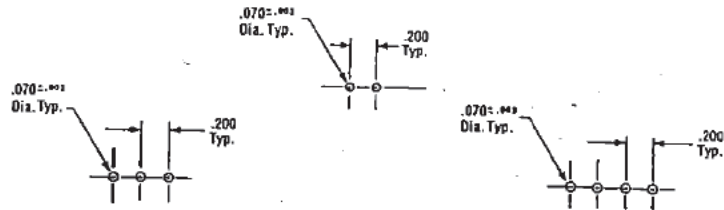
No. of Circuits	Pin Housing Part Number	A	B	C	Socket Housing Part Number	D	E	F ¹
1	1-480350-0 (Detent Lock)	.300	1.200	—	1-480349-0	.260	.270	—
1	1-480351-0 (Positive Lock)	.300	1.240	—	1-480349-0	.260	.270	—
2	1-480319-0	.610	.930	.330	1-480318-0	.530	.550	.295
3	1-480305-0	.810	.930	.325	1-480303-0	.625	.650	.310
4	1-480426-0	1.010	.930	.330	1-480424-0	1.025	.650	.310
6	1-480340-0	.705	—	—	1-480270-0	.610	—	—
8	1-480345-0	.900	—	—	1-480283-0	.805	—	—
10	1-480339-0	1.095	—	—	1-480285-0	1.000	—	—

¹Housing accepts double wire applications where individual insulation diameters do not exceed .115 inches.

**Printed Circuit Board
Pin Header Assemblies**
(Mates with Commercial and Dual Lance Motor Mount or
Free Hanging Socket Housings)



2, 3 and 4 Circuits

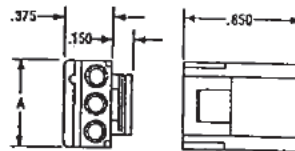


Housing Material: Nylon — Color: Natural (NEMA Colors Available)

No. of Circuits	Part Number With Positive Lock		Part Number With Detent Lock		A	Pin Material and Finish	Mates with Socket Housing Part Number
	Standard Pin*	Long Pin**	Standard Pin*	Long Pin**			
2	350539-1	350540-1	350209-1	350422-1	.515	Brass—Tin Plated	1-480318-0
	350539-2	350540-2	350209-2	350422-2		Brass—Gold Plated	1-480723-0
3	350541-1	350542-1	350210-1	350423-1	.715	Brass—Tin Plated	1-480303-0
	350541-2	350542-2	350210-2	350423-2		Brass—Gold Plated	1-480729-0
4	350543-1	350545-1	350211-1	350424-1	.915	Brass—Tin Plated	1-480424-0
	350543-2	350545-2	350211-2	350424-2		Brass—Gold Plated	1-480424-0

*Use Standard Pin for .062 thick printed circuit board.
**Use Long Pin for .125 thick printed circuit board.

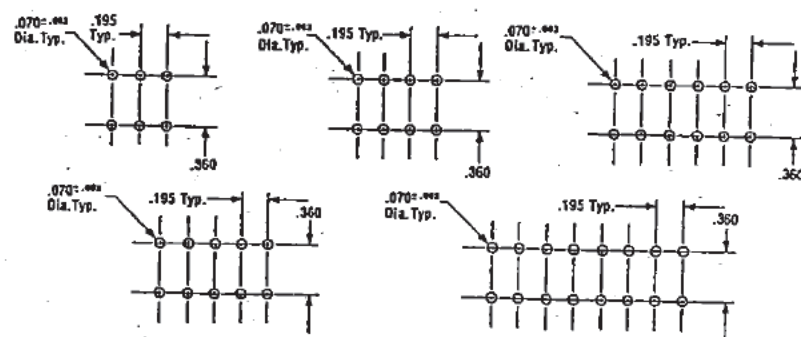
2, 3 and 4 Circuits



Positive Lock Housings — Color: Natural (NEMA Colors Available)

No. of Circuits	Socket Housing Part Number	A	Mates with Pin Header Assembly
2	1-480720-0	.435	350539, 350540
3	1-480721-0	.630	350541, 350542
4	1-480722-0	.830	350543, 350545

6, 8, 10, 12 and 16 Circuits



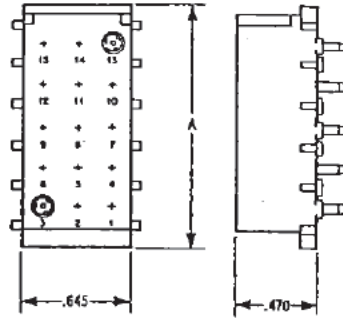
Housing Material: Nylon — Color: Natural (NEMA Colors Available)

No. of Circuits	Part Number With Positive Lock		Part Number With Detent Lock		A	Pin Material and Finish	Mates with Socket Housing Part Number
	Standard Pin*	Long Pin**	Standard Pin*	Long Pin**			
6	1-380999-0	350425-1	—	—	.705	Brass—Tin Plated	1-480270-0
	—	350425-2	—	—		Brass—Gold Plated	1-480696-0
8	350212-1	350426-1	—	—	.900	Brass—Tin Plated	1-480283-0
	350212-2	350426-2	—	—		Brass—Gold Plated	1-480283-0
10	1-330991-0	—	—	—	1.095	Brass—Tin Plated	1-480265-0
	—	—	—	—		Brass—Gold Plated	1-480265-0
12	350213-1	—	—	—	1.290	Brass—Tin Plated	1-480267-0
	350213-2	—	—	—		Brass—Gold Plated	1-480733-0
16	350214-1	350427-1	—	—	1.680	Brass—Tin Plated	1-480438-0
	350214-2	350427-2	—	—		Brass—Gold Plated	1-480747-0

*Use Standard Pin for .062 thick printed circuit board.
**Use Long Pin for .125 thick printed circuit board.

Printed Circuit Board
 Socket Header Assemblies
 (Mates with Commercial and Dual Lance
 Panel Mount Pin Housings)

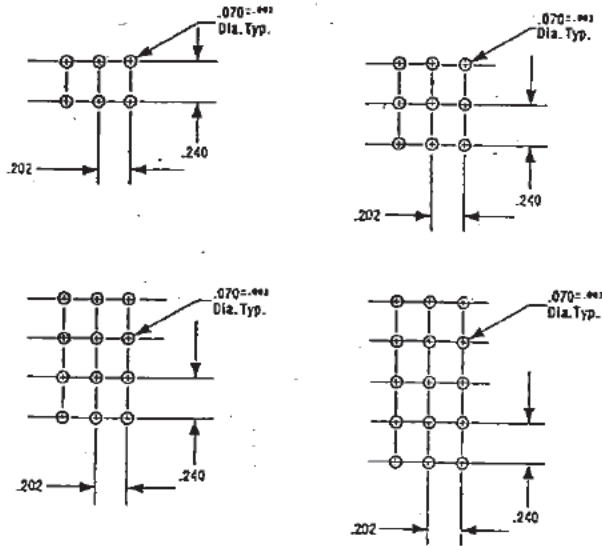
6, 9, 12 and 15 Circuits



Material: Nylon — Color: Natural (NEMA Colors Available)

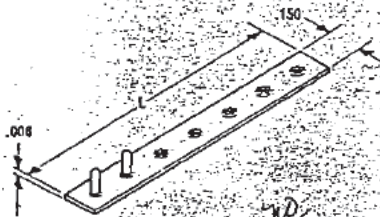
No. of Circuits	Part Number Standard Pin*	Part Number Long Pin**	A	Pin Material and Finish	Mates with Pin Housing Part Number
6	350641-1	350576-1	.730	Brass—Tin Plated	1-450276-0
	350641-2	350576-2		Brass—Gold Plated	1-450693-0
9	350642-1	350577-1	.960	Brass—Tin Plated	1-450277-0
	350642-2	350577-2		Brass—Gold Plated	1-450694-0
12	350643-1	350578-1	1.200	Brass—Tin Plated	1-450278-0
	350643-2	350578-2		Brass—Gold Plated	1-450695-0
15	350644-1	350579-1	1.440	Brass—Tin Plated	1-450324-0
	350644-2	350579-2		Brass—Gold Plated	1-450713-0

*Use Standard Pin for .062 thick printed circuit board.
 **Use Long Pin for .125 thick printed circuit board.



Commercial MATE-N-LOK
Special Application
Connectors

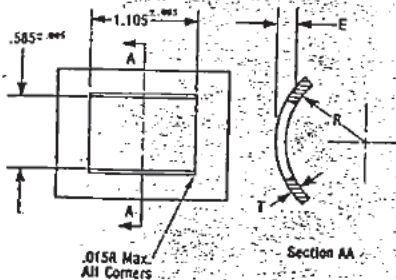
Commoning Tab
(For use with Housing 420404 only)



Number of Holes	L	Part Number
2	.420	60990-1
3	.650	60990-2
4	.880	60990-3
5	1.110	60990-4
6	1.340	60990-5
7	1.570	60990-6

Unless Specified Tolerance = .015

Mounting Information



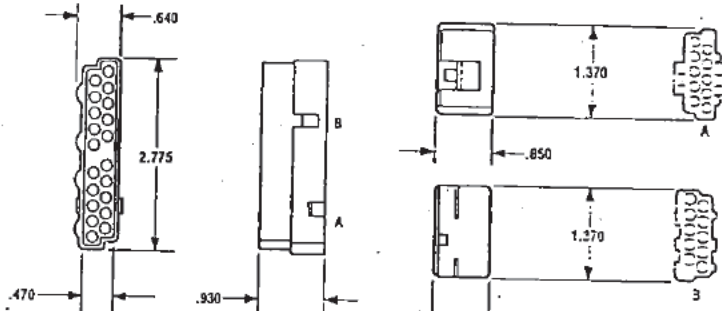
Unless Specified Tolerance = .015

Mounting Information

1. Effective panel thickness "E" is .040-.100 inches and is dependent on "T" and "R."
2. Pin housing must be inserted in a rocking manner.
3. The panel must be punched so that the housing enters the panel in the same direction as the punch.

NOTE:
Housings may be used in flat panels.

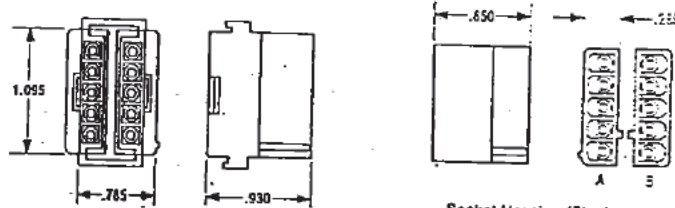
Split Connector
20 Circuit Free Hanging
Housing Material: Nylon, Natural



Pin Housing (Cap)
Part No. 1-480404-0 ✓

Socket Housing (Plug)
Part No. (A) 1-480403-0 (Positive Lock) ✓
Part No. (B) 2-480403-0 (Permanent Lock) ✓

Split Plug Connector
10 Circuit Free Hanging or Panel Mount

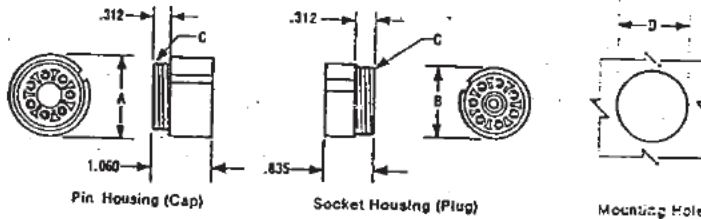


Pin Housing (Cap)
Part No. 1-480389-1 ✓

Housing Material: Outdoor nylon, black

Socket Housing (Plug)
Part No. (A) 1-480390-1 (Detent Lock) ✓
Part No. (B) 2-480390-1 (Detent Lock) ✓
Accepts double wire applications where individual insulation diameters do not exceed .115 inches.

Circular Connectors
7 and 12 Circuits



Pin Housing (Cap)

Socket Housing (Plug)

Mounting Hole

Housing Material: Polycarbonate, Black

Unless Specified Tolerance = .015

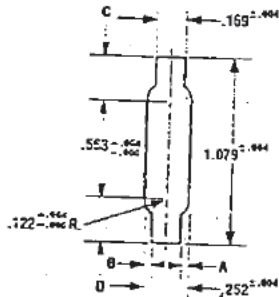
No. of Circuits	Pin Housing Part Number	A Dia.	Socket Housing Part Number	B Dia.	C Threads	Mounting Dia.
7	1-480455-0 ✓	1.400	1-480454-0 ✓	1.305	1 11/64-24	1.470*
12	1-480457-0 ✓	1.550	1-480456-0 ✓	1.455	1 13/32-24	1.470*

Extraction Tools: Part No. 691458-3 for Pins; Part No. 691458-4 for Sockets.

*Tolerance = .010

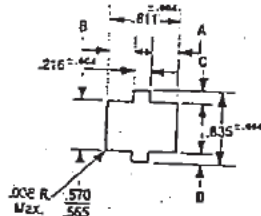
MATE-N-LOK
Connectors
European Style

Mounting Information
Socket Housing (Plug) Only



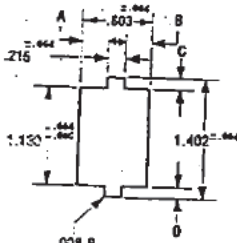
Mounting Hole
Recommended Panel Cut-out

NOTES:
Dimensions "A" and "B" to be equal within .005; Dimensions "C" and "D" to be equal within .005.
Recommended panel thickness .025-.065.
Connector must enter from punched side.



Mounting Hole
Recommended Panel Cut-Out

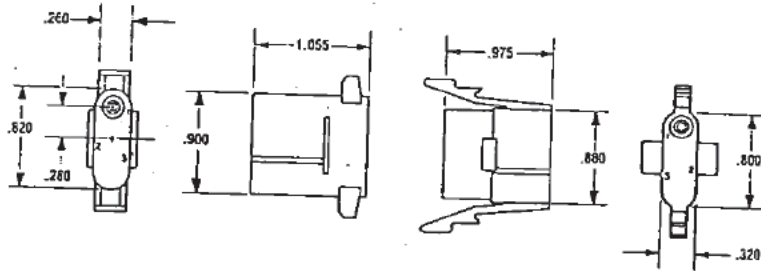
NOTES:
Dimensions "A" and "B" to be equal within .005; Dimensions "C" and "D" to be equal within .005.
Recommended panel thickness .025-.065.
Connector must enter from punched side.



Mounting Hole
Recommended Panel Cut-Out

NOTES:
Dimensions "A" and "B" to be equal within .005; Dimensions "C" and "D" to be equal within .005.
Recommended panel thickness .025-.065.
Connector must enter from punched side.

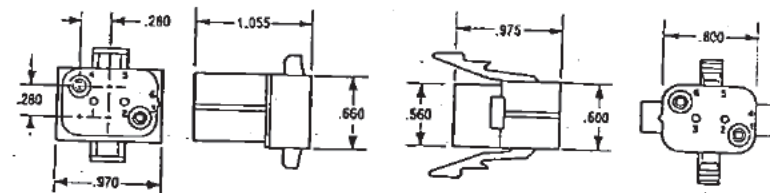
3 Circuit



Pin Housing (Cap)
Part No. 1-480755-0 ✓

Socket Housing (Plug)
Part No. 1-480756-0 ✓

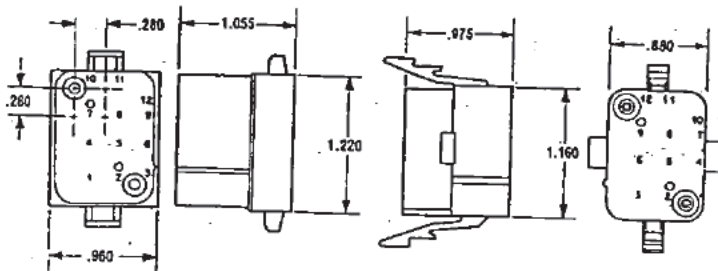
6 Circuit



Pin Housing (Cap)
Part No. 1-480753-0 ✓

Socket Housing (Plug)
Part No. 1-480754-0 ✓

12 Circuit



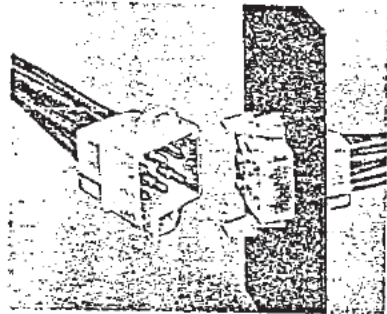
Pin Housing (Cap)
Part No. 1-480751-0 ✓

Socket Housing (Plug)
Part No. 1-480752-0 ✓

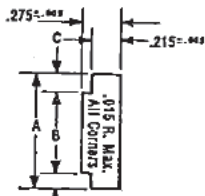
NOTE:
For use with Standard Side Feed and End Feed Contacts —
Refer to Pages 3 and 4.

Dual Lance MATE-N-LOK Connectors

Contacts



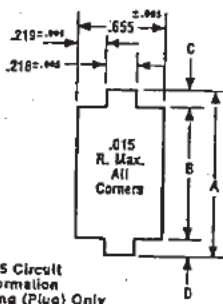
Panel Mount 3 and 4 Circuit



3 and 4 Circuit
Mounting Information
Socket Housing (Plug) Only

Panel Mount 6, 9, 12, 15 Circuits

Mounting Information Socket Housing (Plug) Only



6, 9, 12 and 15 Circuit
Mounting Information
Socket Housing (Plug) Only

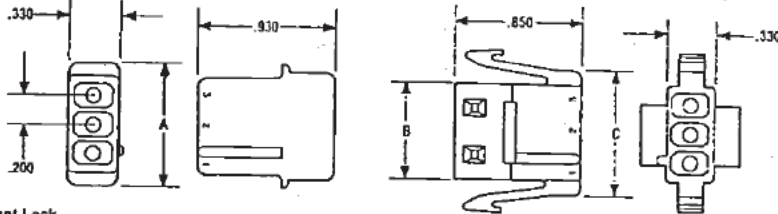
No. of Circuits	A	B
3	.890	.645/.635
4	1.090	.845/.835
6	.850	.575/.570
9	1.085	.815/.810
12	1.320	1.050/1.045
15	1.555	1.290/1.285



Dual Lance Contacts for Dual Lance Housings Only

Wire Size Range (AWG)	Ins. Dia. Max.	Material and Finish	Stock Thickness	Strip Form Contact No.		Loose Piece Contact No.		Hand Tool No.
				Pin	Socket	Pin	Socket	
20-14	.130	Brass, Pre-tin	.012	350218-1	350217-1	350547-1	350548-1	90296-1
Two #18 or One #18 and One #16	Two .115 Stacked	Brass, Gold	.012	350218-2	350217-2	—	—	—
		Brass, Pre-tin	.012	350513-1	350512-1	350549-1	350548-1	90297-1
24-18	.100	Brass, Pre-tin	.012*	350561-1	350560-1	350590-1	350691-1	90300-1
		Brass, Gold	.012*	350561-2	350560-2	350590-2	350691-2	—

* Socket Contact—.010.
Contact Extraction Tool Part No. 458994-1.
Contact Insertion Tool Part No. 91002-1.

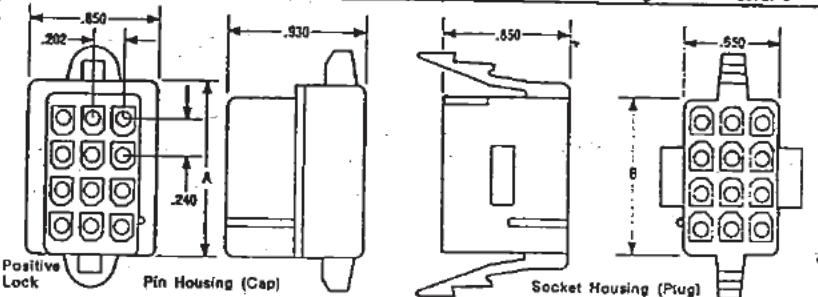


Detent Lock

Pin Housing (Cap)

Socket Housing (Plug)

No. of Circuits	Dimensions			Housing Part No.	
	A	B	C	Pin	Socket
3	.810	.630	.825	1-480726-0 ✓	1-480725-0 ✓
4	1.010	.830	1.025	1-480728-0 ✓	1-480727-0 ✓



Positive Lock

Pin Housing (Cap)

Socket Housing (Plug)

No. of Circuits	Dimensions		Housing Part No.	
	A	B	Pin	Socket
6	.685	.565	1-480693-0 ✓	1-480590-0 ✓
9	.905	.805	1-480694-0 ✓	1-480691-0 ✓
12	1.145	1.045	1-480695-0 ✓	1-480692-0 ✓
15	1.385	1.280	1-480713-0 ✓	1-480712-0 ✓

NOTES: Unless Specified, Tolerance ±.005

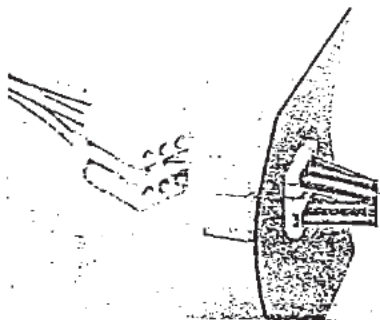
- Recommended panel thickness .025-.065 inch.
- Both locking legs should be squeezed together and the housing inserted "straight-in" as opposed to a rocking manner of insertion.
- The panel should be punched so that the housing enters the panel in the same direction as the punch for best retention.
- Dimensions "C" and "D" to be equal within a tolerance of .005 inch.
- Panel must not have any material (paint, porcelain, etc.) applied in the mounting hole area that would decrease retention of the housing in the panel.
- If notes 3 and/or 5 are not complied with, the "A" dimension should be reduced by .030" to assure proper housing retention in panel.
- Dual lance housing can be identified from Commercial MATE-N-LOK housing by the fact that their part no. appears on wire entry side of the housing.

Dual Lance MATE-N-LOK Connectors

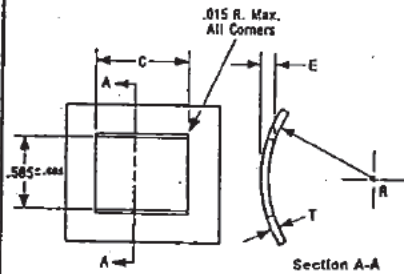
Free-Hanging Connector Housings



Motor Mounted Connector Housings



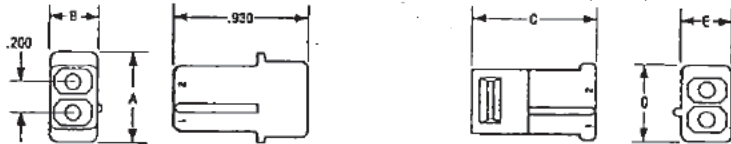
Mounting Information Pin Housing (Cap) Only



NOTES:

1. Effective panel thickness "E" is .040-.100 inch and is dependent on "T" and "R".
*In housing (cap) must be inserted in a soldering manner.
2. The panel must be punched so that the housing enters the panel in the same direction as the punch.
3. The panel must not have any material (paint, porcelain, etc.) applied in the mounting hole area that would decrease retention of the housing in the panel.
4. Motor mount housings may be used in flat panels.

2 and 3 Circuit

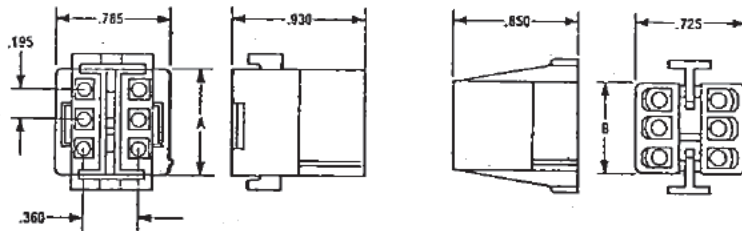


Pin Housing (Cap)

Socket Housing (Plug)

No. of Circuits	Dimensions		Pin Housing Part No.	Dimensions			Socket Housing Part No.
	A	B		C	D	E	
2	.610	.330	1-480724-0	.860	.530	.330	1-480723-0
3	.810	.325	1-480726-0	.850	.825	.330	1-480729-0

6, 12 and 16 Circuit



Pin Housing (Cap)

Socket Housing (Plug)

No. of Circuits	Dim. A	Pin Housing Part No.*	Dim. B	Socket Housing Part No.	Mounting Dim. C
6	.705	1-480697-1	.610	1-480696-0	.715
12	1.290	1-480734-0	1.195	1-480733-0	1.300
16	1.680	1-480748-0	1.585	1-480747-0	1.690

*Accepts single wire terminations only.

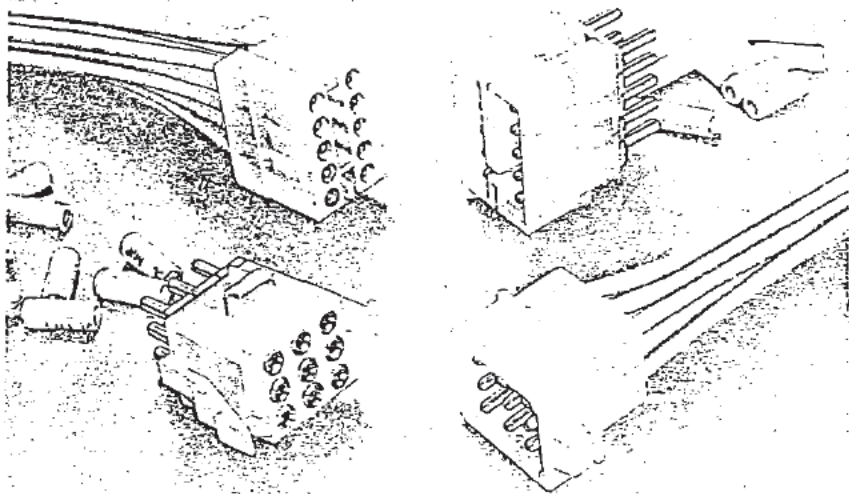
**Commercial and Dual Lance
MATE-N-LOK
Connector
Test Assemblies**

A full range of MATE-N-LOK Connector test assemblies is available in motor mount, panel mount and free hanging designs. These assemblies have been specifically designed for circuit testing on the assembly line. Each test housing is equipped with screw machined contacts to withstand repeated insertions and extractions in the production line housing.

The contacts accept the mating contact under test to assure proper contact seating and electrical continuity. Contacts in the assemblies have provisions to accept leads directly from test equipment by soldering or using .093 pin receptacles.

Testing Information

Power must be shut off from circuit when engaging or disengaging assembly to eliminate shock hazard.



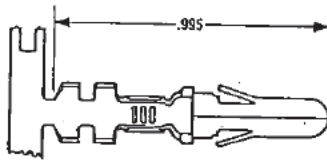
Housing Material: Nylon

Style	No. of Circuits	Part Number Plug*	Part Number Cap**
Panel Mount	3	1-380780-2 ✓	1-380721-2 ✓
	6	1-380780-3 ✓	1-380721-3 ✓
	9	1-380780-4 ✓	1-380721-4 ✓
	12	1-380780-5 ✓	1-380721-5 ✓
	15	1-380780-6 ✓	1-380721-6 ✓
Motor Mount	6	1-380780-7 ✓	1-380721-7 ✓
	8	1-380780-8 ✓	1-380721-8 ✓
	10	1-380780-9 ✓	1-380721-9 ✓
	12	2-380780-0 ✓	2-380721-0 ✓
Free-hanging	1	1-380780-0 ✓	1-380721-0 ✓
	2	1-380780-1 ✓	1-380721-1 ✓

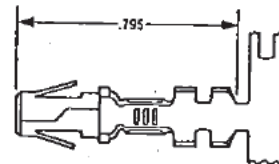
*The test plug mates with the pin housing.
**The test cap mates with the socket housing.

.140
MATE-N-LOK
Connectors

Contacts



Pin—.140 Diameter



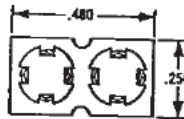
Socket

Material and Finish: Brass, Pre-Tinned

Wire Range (AWG)	Ins. Dia. Range	Strip Form Contact No.		Loose Piece Contact No.		Hand Tool No.
		Pin	Socket	Pin	Socket	
20-14	.100-.180	61627-1	61626-1	350389-1	350388-1	60247-1
14-10	.100-.180	350201-1	350200-1	350391-1	350390-1	69716*

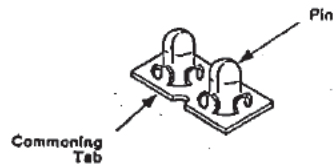
*This hand tool requires die insert No. 90306-1.
Stock Thickness .014
Extraction Tool Part No. 453300-1

Commoning Tab

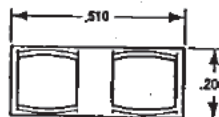


Part No. 61739-1 (Brass, Unplated) .010
Part No. 61739-2 (Beryllium Copper, Unplated) .010

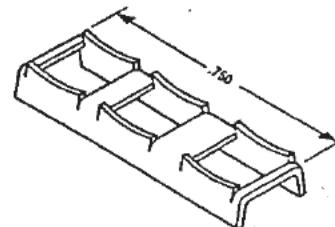
NOTE:
Two-pin commoning bar can be used to common adjacent pins in any column or row, except at polarized end of 3 and 8 circuit housings. Cannot be used in 2 circuit housings.



The above illustration shows the proper installation of the two-pin commoning bar.

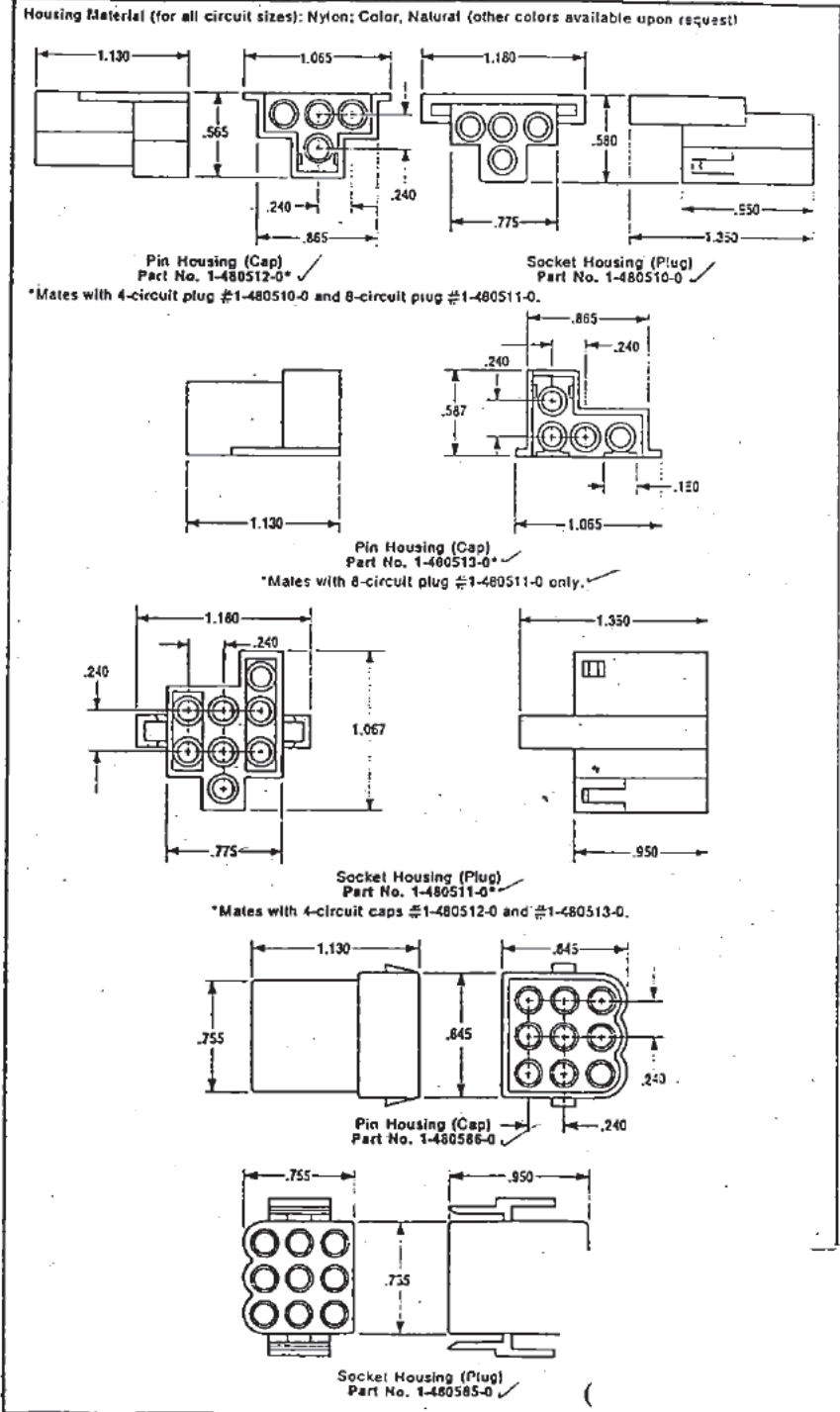
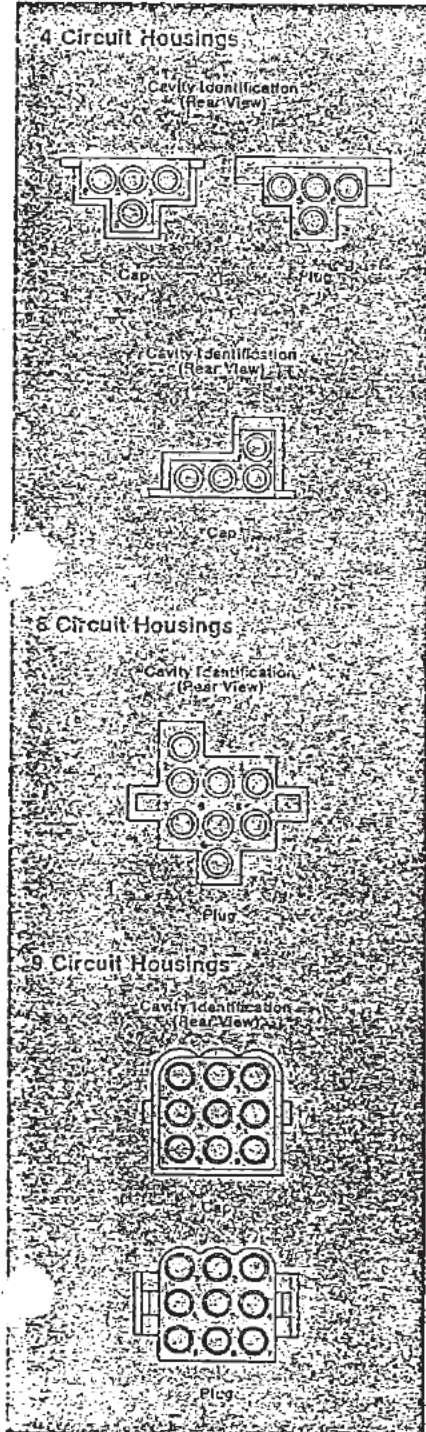


2 Circuit Commoning Tab
Part No. 61628-1 (Brass, Unplated) .010
Part No. 61628-2 (Beryllium Copper, Unplated) .010
For 8 Circuit Socket Housing Only



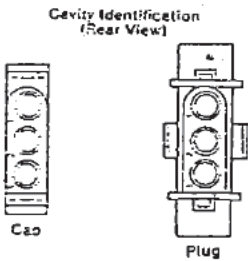
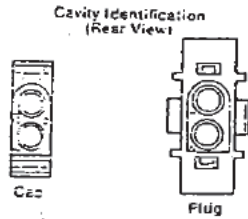
3 Circuit Commoning Tab
Part No. 61629-1 (Brass, Unplated) .010
Part No. 61629-2 (Beryllium Copper, Unplated) .010
For 8 Circuit Socket Housing Only

140
MATE-N-LOK
 Free Hanging
 Connectors

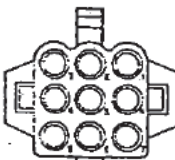
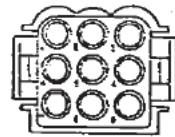


.140
MATE-N-LOK
Panel Mounted
Connectors

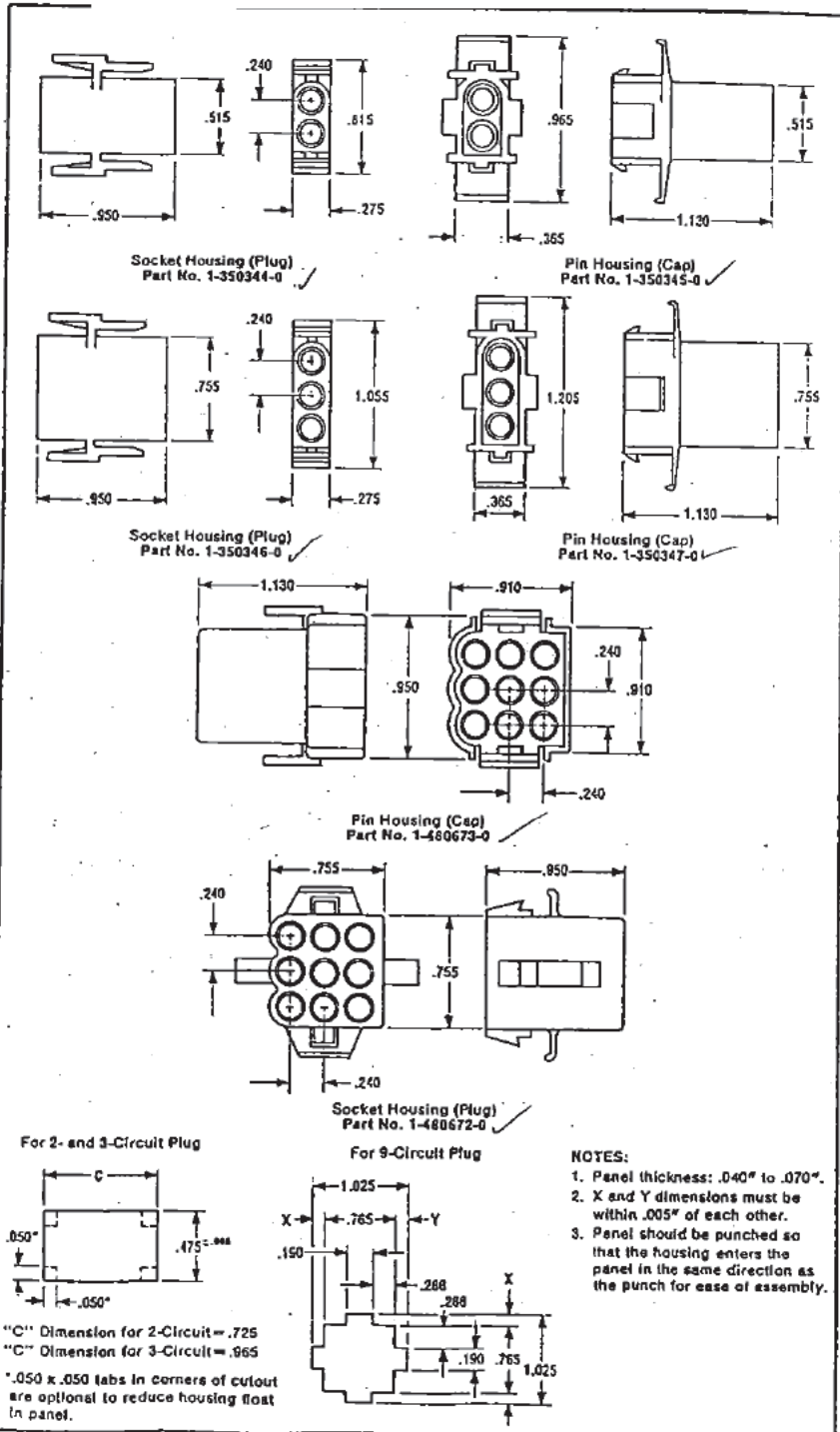
2, 3 and 9 Circuit Housings



Cavity Identification
(Rear View)



Recommended Panel Cutouts



The data in column 8 are similar to those in column 7 except for the holding compound.

<u>7</u>	<u>8</u>
480698	350777
480700	350766
480702	350779
480763	350809
480704	350715
480706	350720
480708	350735
480710	- 350736 -
480699	350778
480701	<u>350767</u>
480703	350780
480764	350810
480705	350781
480707	350782
480709	350783
480711	- 350784 -
350728	350786
350429	<u>350789</u>
350430	<u>350792</u>
350726	
350431	350711
350432	350712
350433	350713
350434	350714
350582	350787
350583	350790
350584	350793
350728	
350585	350732
350586	350742
350587	350737
350588	350738
350589	350811
350590	350812

Attachment #2

9/10/75

Universal MATE-N-LOK

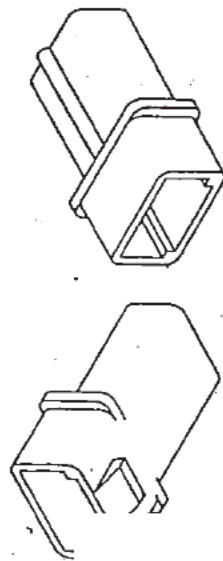
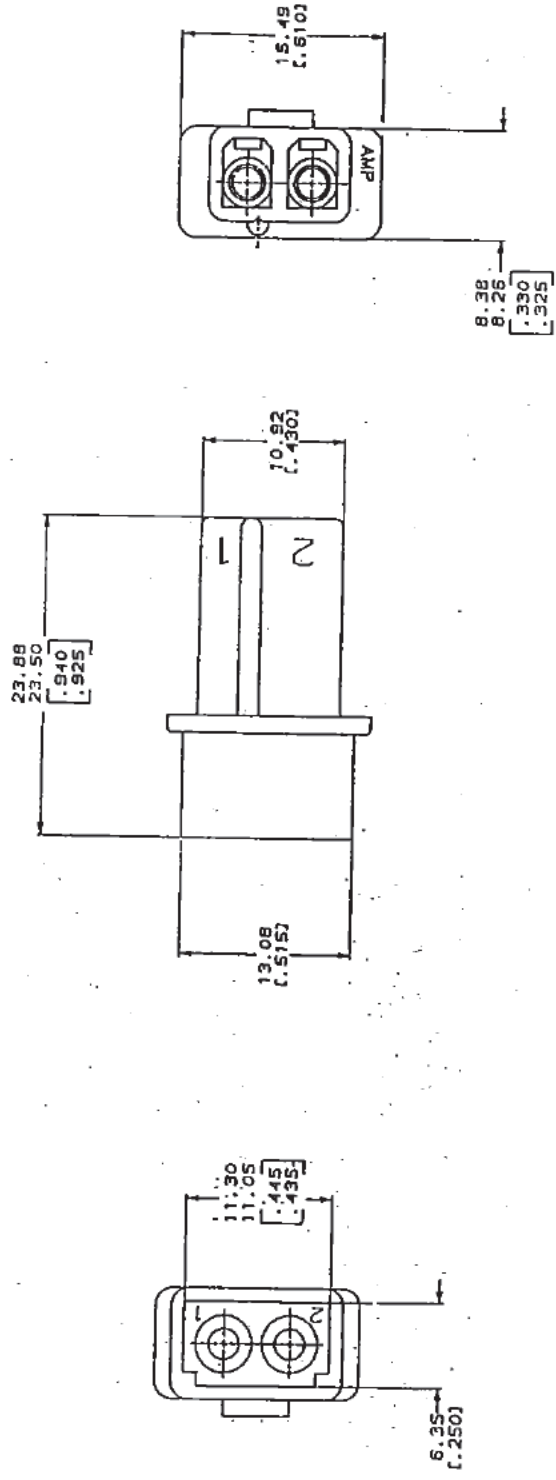
Socket Headers

The items in Column B are similar to those in Column A except for the length of the soldertail.

Short soldertail A	Long soldertail B
350824	350831
350825	350832
350826	350833
350827	350834
350828	350835
350829	350836
350830	350837

REVOLUTIONS		DATE	APP.
CH 53	0	10-20-72	13
DESCRIPTION			
0 RLSO PER PR CH 93-42			

1. THIS CAP TO BE USED WITH PLUG NO. 1-480720-0.
2. TO BE USED WITH APPROPRIATE COMMERCIAL MATE-N-LOK™ PINS.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



3-DIMENSIONAL MODELS
NTS

FIG. 26 LR 7189A 38

DO NOT SCALE PRINT. UNLESS SPECIFIED DIMENSIONS IN MM (INCHES) TOLERANCES ON: 1. DIMENSIONS ON 1. PLS DEC 4. ANGLES ON 1. MATERIAL NYLON 94V-2 FINISH		OR 2. UNLESS ALL DIMENSIONS ARE SPECIFIED IN MILLIMETERS (INCHES) TOLERANCES ON: 1. DIMENSIONS ON 1. PLS DEC 4. ANGLES ON 1. MATERIAL NYLON 94V-2 FINISH	794012-1
PART NO		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
NAME		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
PRODUCT SPEC		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
APPLICATION SPEC		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
WEIGHT		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
SCALE		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
DRAWING NO		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
SIZE		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
CAGE CODE		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
PART NO		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
SHEET		AMP Incorporated Harrisburg, PA 17105-3800	794012-1
1 OF 1		AMP Incorporated Harrisburg, PA 17105-3800	794012-1

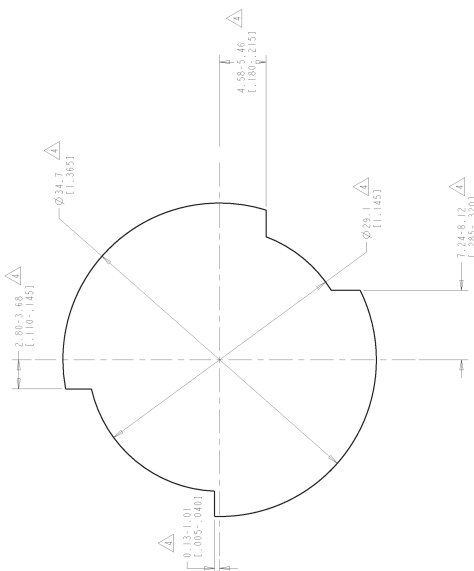
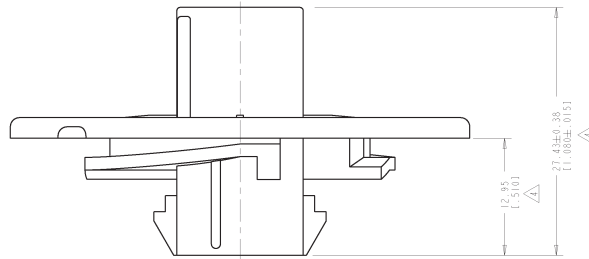
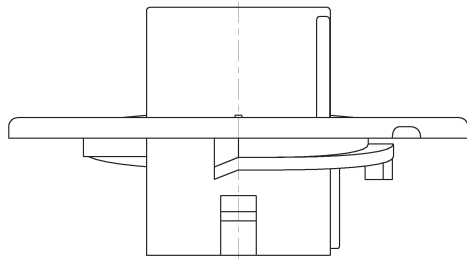
METRIC

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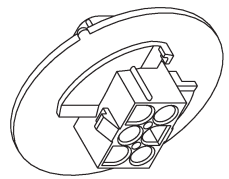
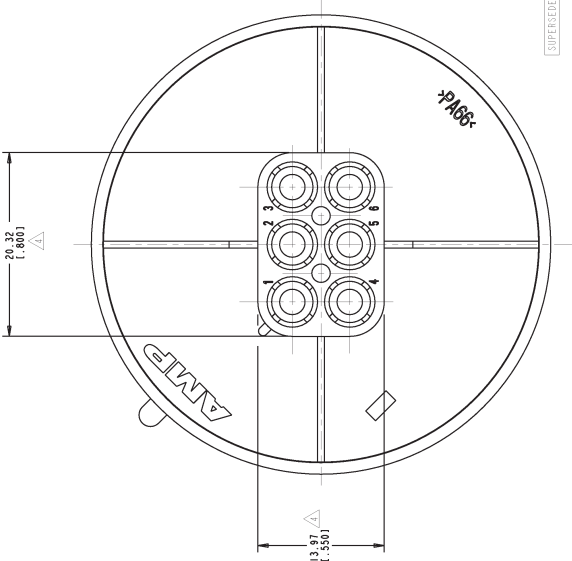
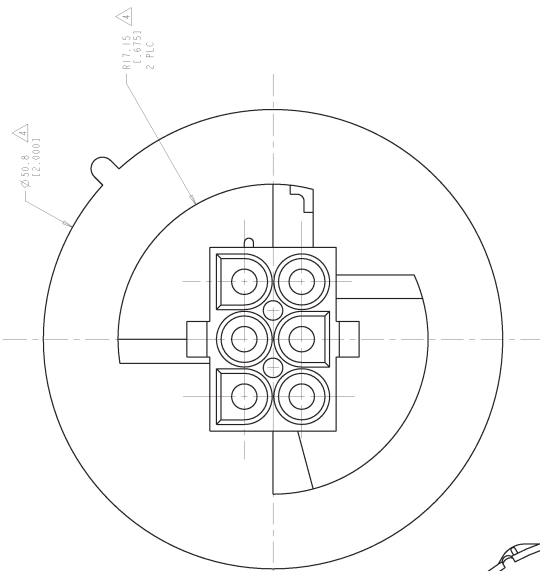
REV	DATE	DESCRIPTION
1	00	REVISED PER ELEC-86-282424
2	00	REVISED PER ELEC-86-282424
3	00	REVISED PER ELEC-86-282424

1. MATES WITH APPROPRIATE UNIVERSAL WIRE-N-LOK™ PLUG.
2. RECOMMENDED PANEL THICKNESS 0.76 - 2.29 (1.830 - 0.901).
3. PANEL MUST BE DIMENSIONED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PANEL.

△ DIMENSIONS INDICATED ARE REFERENCE. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.



RECOMMENDED CUT OUT



3-DIMENSIONAL MODEL
SCALE 2:1

Natural	9-794714-0
BLACK	1-794714-3
GRAY	1-794714-8
BLUE	1-794714-6
GREEN	1-794714-5
YELLOW	1-794714-4
ORANGE	1-794714-3
RED	1-794714-2
BROWN	1-794714-1
RED	794714-3
NATURAL	794714-1
COLOR	PART NUMBER

SUPPRESSED BY 794714-3

DATE	01	REV	01
DATE	01	REV	01
DATE	01	REV	01



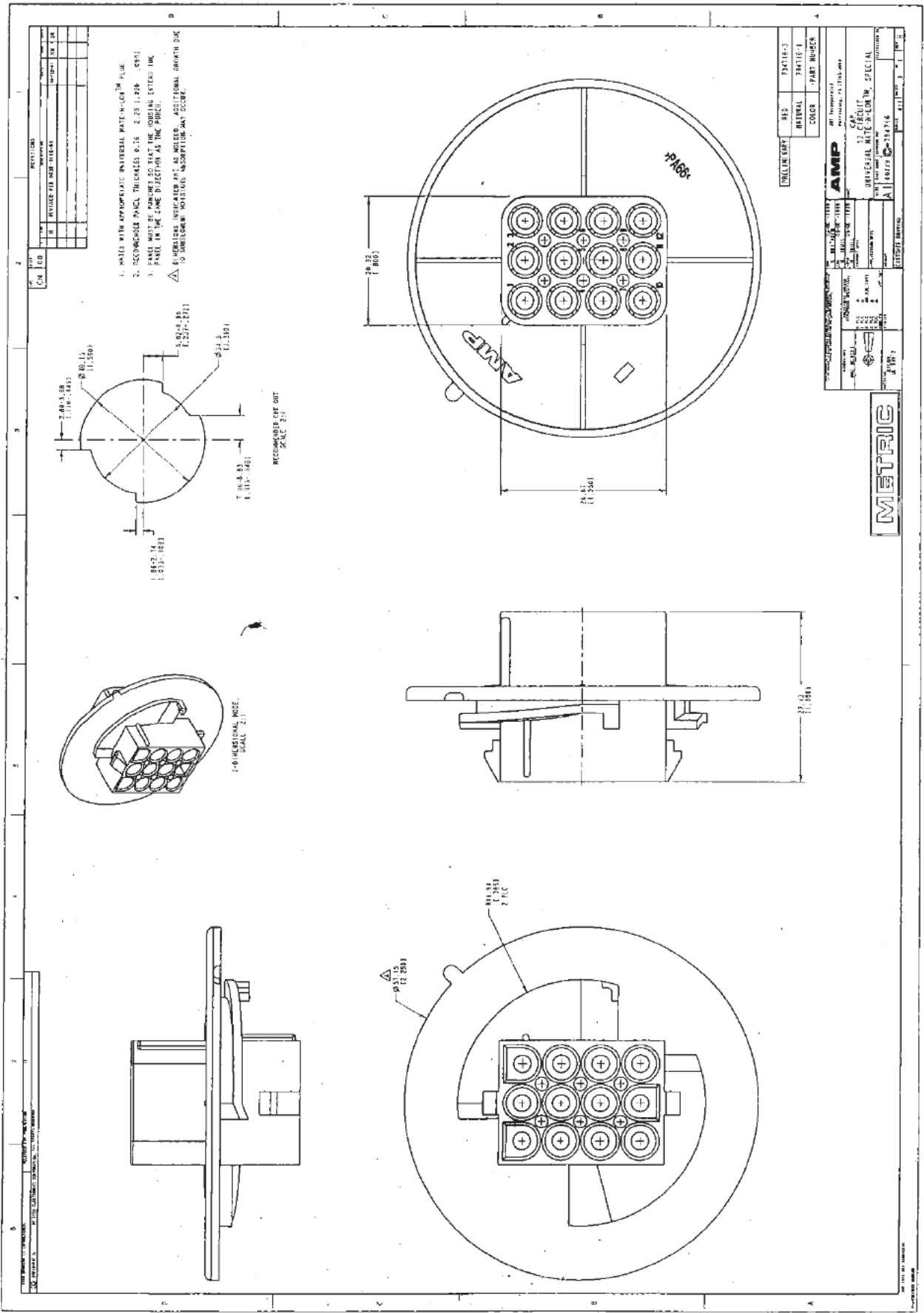


FIG 54
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

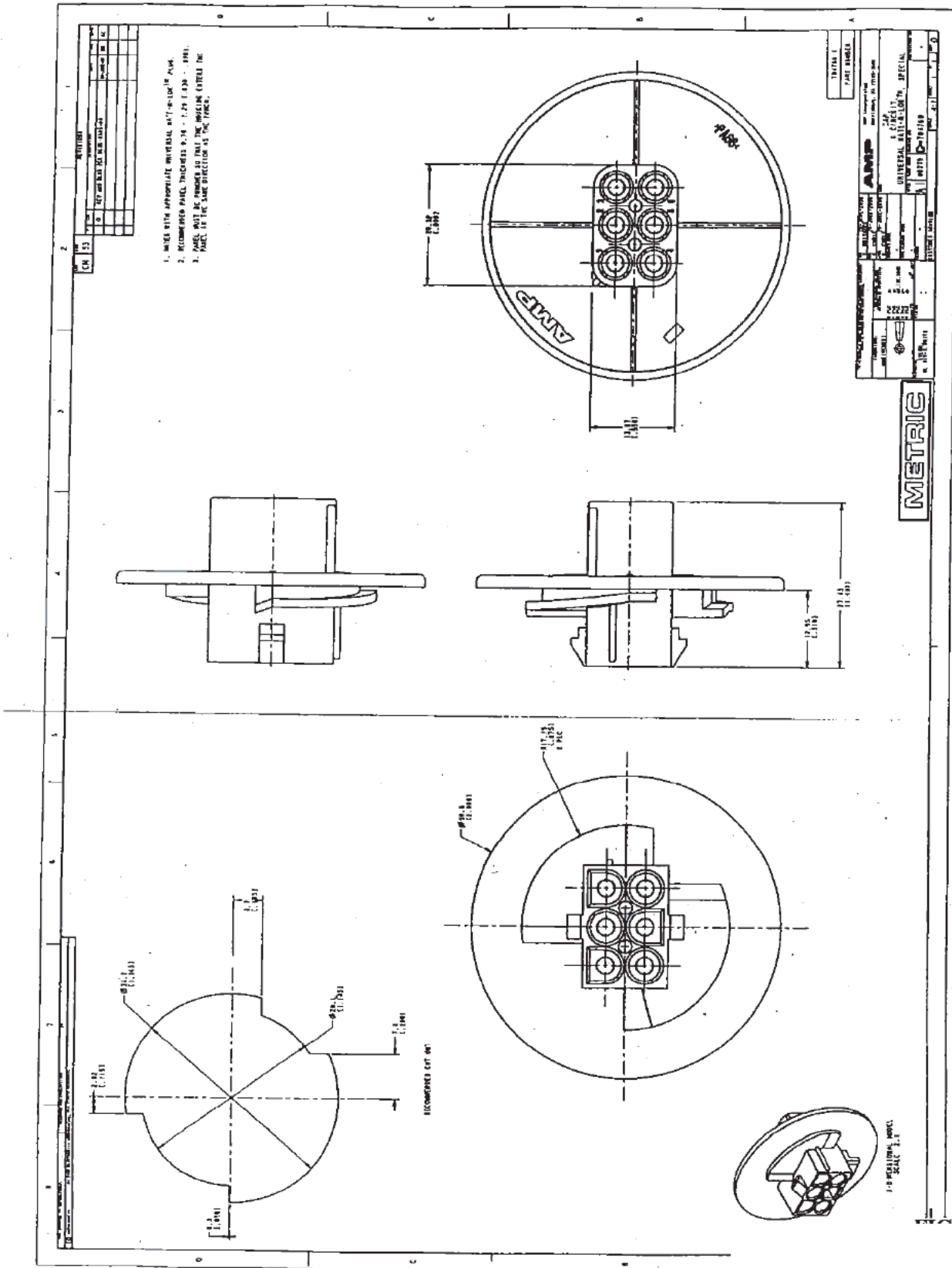


FIG 55
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

749761

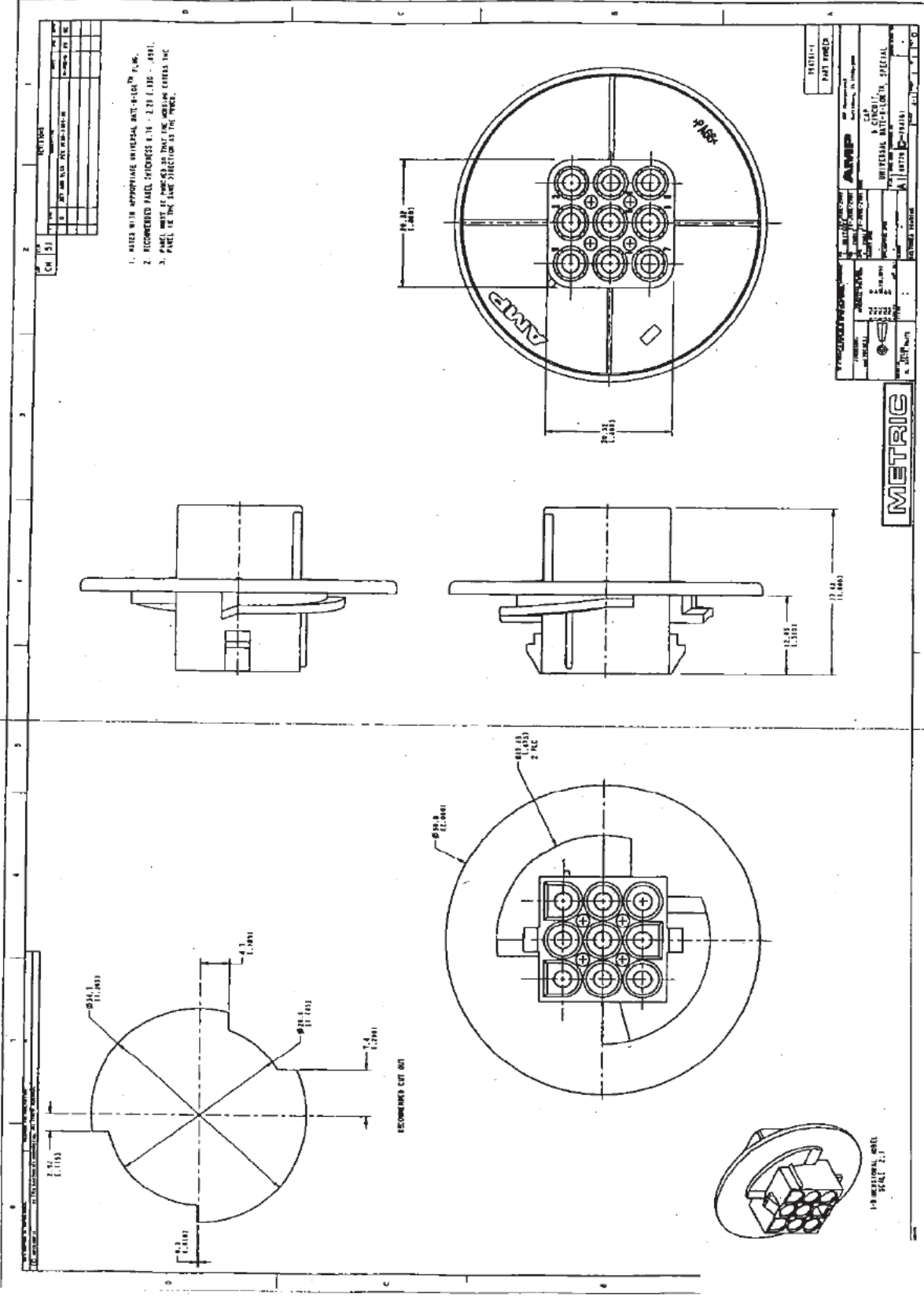
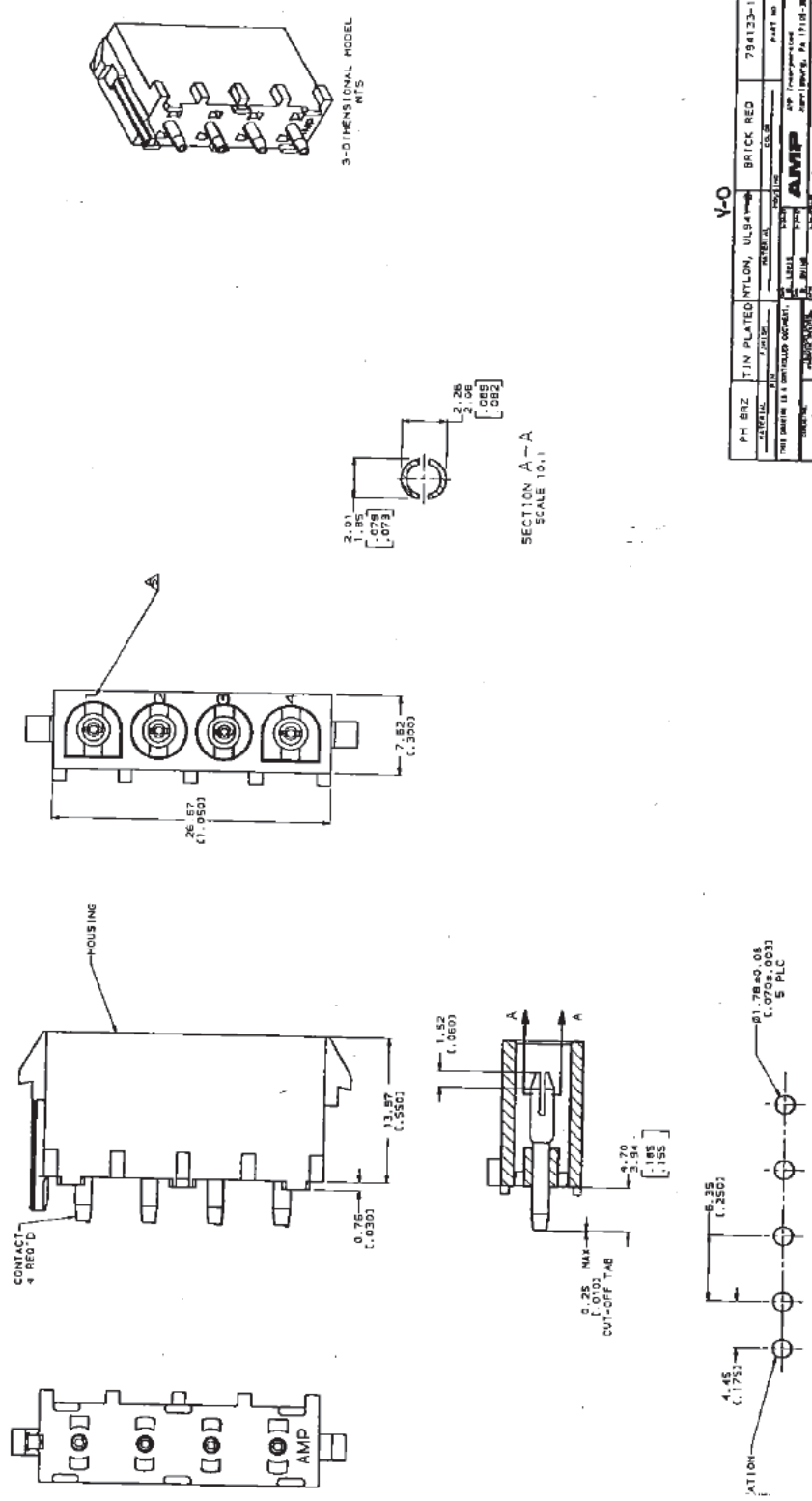


FIG 56
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

REV. NO.	DATE	BY	CHKD.
1	11-18-68	J. J. ...	J. J. ...
2	11-18-68	J. J. ...	J. J. ...
3	11-18-68	J. J. ...	J. J. ...
4	11-18-68	J. J. ...	J. J. ...
5	11-18-68	J. J. ...	J. J. ...
6	11-18-68	J. J. ...	J. J. ...
7	11-18-68	J. J. ...	J. J. ...
8	11-18-68	J. J. ...	J. J. ...
9	11-18-68	J. J. ...	J. J. ...
10	11-18-68	J. J. ...	J. J. ...

1. PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-3.
 2. PARTS WITH AS9702 USING SOCKET CONTACTS.
 3. THIS DRAWING RESTRICTED TO UNITED TECHNOLOGIES.
 4. DIMENSIONS IN BRACKETS ARE IN INCHES.
- △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.



PH BRZ	TIN PLATED	NTLON, UL94	BRICK RED	794133-1
AMP	AMP	AMP	AMP	AMP
THIS DRAWING IS A CONTROLLED DOCUMENT.				
DATE	BY	CHKD.	APP. (Signature)	REV. (Number)
11-18-68	J. J. ...	J. J. ...	J. J. ...	1
PIN MOUNTED ASSEMBLY POLARIZED 4 CIRCUIT UNIVERSAL-MATE-N-L-OK SPECIAL				
UNIT	794133	100775	000	794133
UNIT	794133	100775	000	794133

METRIC

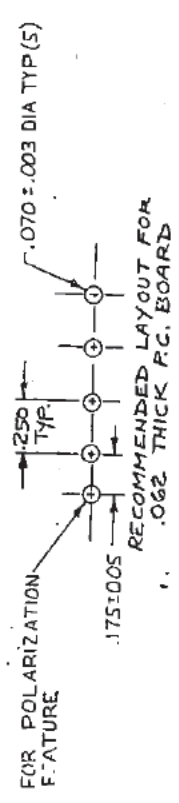
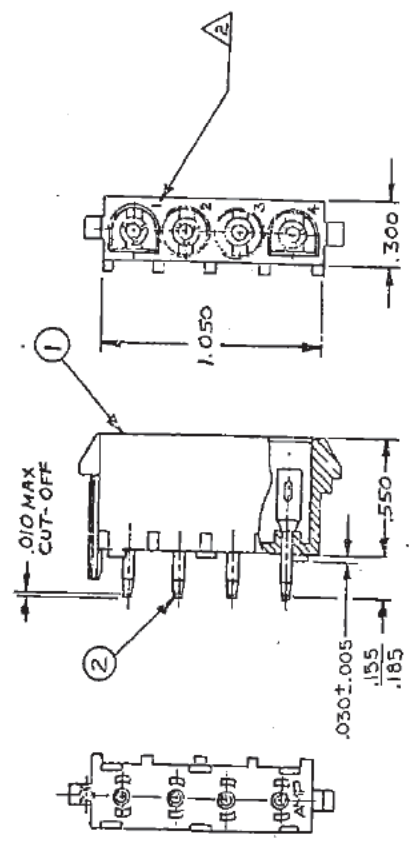
RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 (0.062) THICK P.C. BOARD

100775 000 794133 100775 000 794133

DRAWING MADE IN THIRD ANGLE PROJECTION
THIS DRAWING IS UNPUBLISHED.

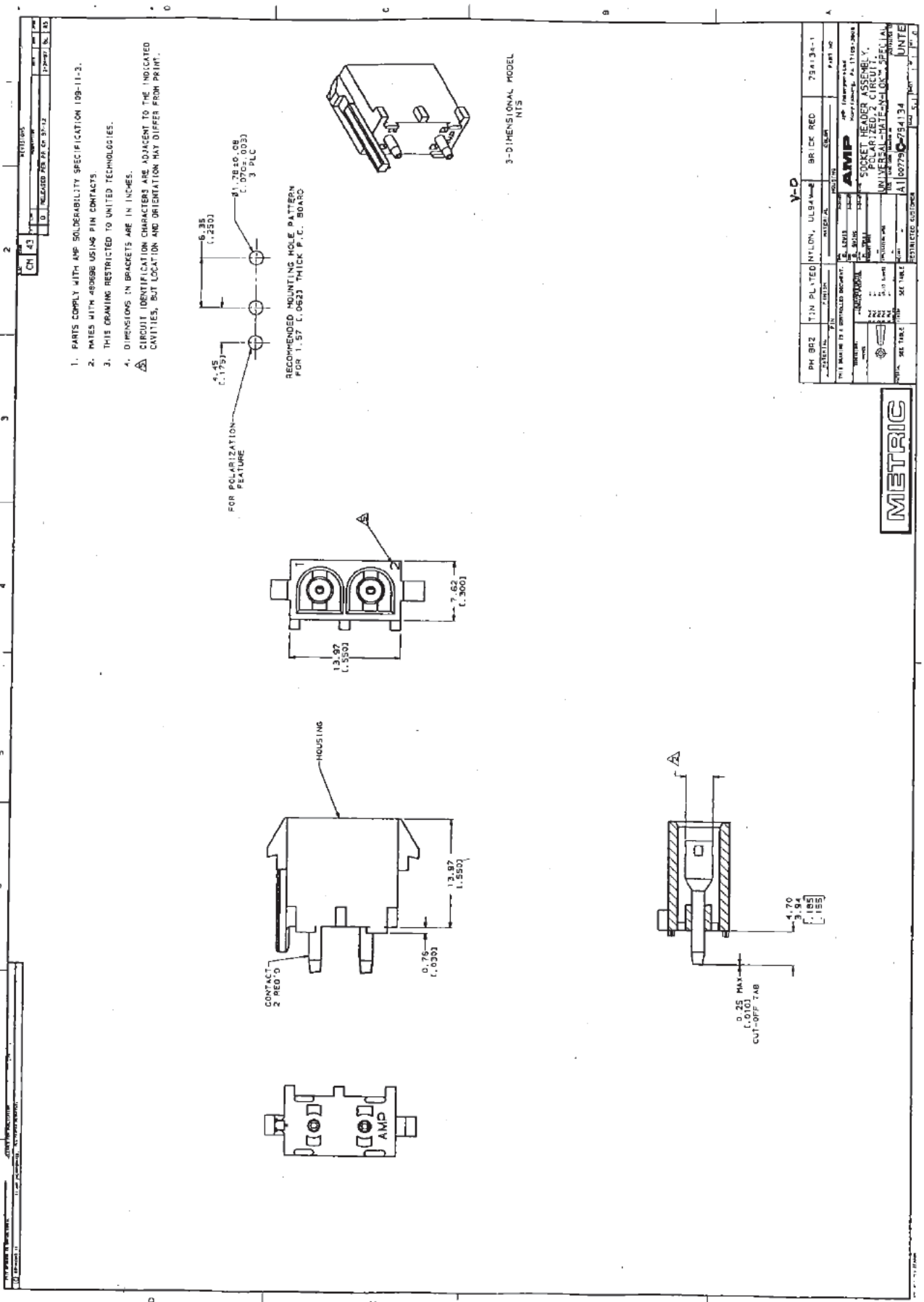
RELEASED FOR PUBLICATION
BY AMP INCORPORATED, HARRISBURG, PA. ALL INTERNATIONAL RIGHTS RESERVED. AMP PRODUCTS MAY BE COVERED BY U.S. AND FOREIGN PATENTS AND/OR PATENTS PENDING.

1		2		3		4	
LOC	CM	REV	DATE	DESCRIPTION	APPROVED	DATE	APPROVED
1	CM	1	7/21/63	RELEASED FOR PUBLICATION	AM/DAH	7/21/63	AM/DAH
		2	9/2/63	REVISED PER ECN M-7393		9/2/63	
		3	11/22/63	REV PER ECN M6214		11/22/63	
		4	12/2/63	RESTORATION		12/2/63	
		5	2/2/64	REVISE PER CM-1511		2/2/64	
		6	1/15/64	REV PER ECN 0730-3928-92		1/15/64	
		7	1/22/64	REV PER ECN 0730-3928-94		1/22/64	
		8	1/22/64	REV PER ECN 0730-3928-95		1/22/64	



1. PARTS COMPLY WITH AMP SOLDERABILITY SPEC. 109-11-3.
 △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION DERIVED FROM PRINT.

4		PH. BRZ, PRT-TIN		2		643416-1	
SOCKET	HOUSING	DESCRIPTION	MATERIAL & FINISH	ITEM NO.	PART NO.	CONTRACT NO.	AMP INCORPORATED HARRISBURG, PA.
1	NO PER ASSY	NYLON, 94V-0		1			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED		CONTRACT NO.		DRAWING NO.		SCALE	
MATERIAL		SEE TABLE		643416		SHEET	
FINISH		SEE TABLE		643416		SHEET	
OTHER APPD		OTHER APPD		OTHER APPD		OTHER APPD	
DESIGN APPD		DESIGN APPD		DESIGN APPD		DESIGN APPD	
APPROVED		APPROVED		APPROVED		APPROVED	
DATE		DATE		DATE		DATE	
BY		BY		BY		BY	
CHK		CHK		CHK		CHK	
TITLE		TITLE		TITLE		TITLE	
UNIVERSAL MATE-N-LOK™ 4-CIRCUIT		UNIVERSAL MATE-N-LOK™ 4-CIRCUIT		UNIVERSAL MATE-N-LOK™ 4-CIRCUIT		UNIVERSAL MATE-N-LOK™ 4-CIRCUIT	

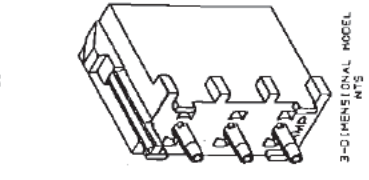


METRIC

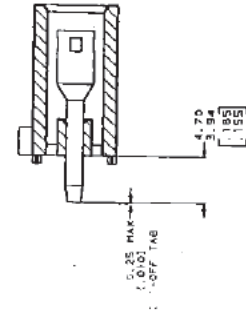
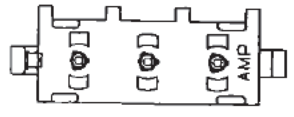
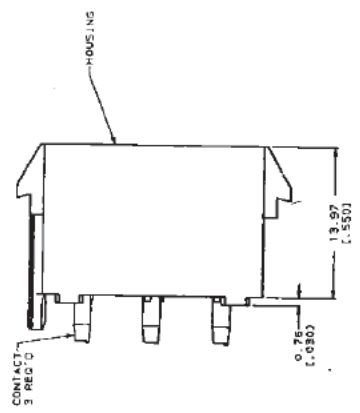
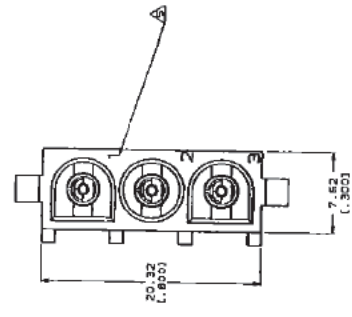
FIG 60
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

1. PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 105-11-3.
 2. MATES WITH #80700 USING PIN CONTACTS.
 3. THIS DRAWING RESTRICTED TO UNITED TECHNOLOGIES.
 4. DIMENSIONS IN BRACKETS ARE IN INCHES.
 5. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.

FOR POLARIZATION FEATURE
 4.45
 (.175)
 5.95
 (.250)
 81.78±0.00
 (.070±.003)
 4 PLC



RECOMMENDED MOUNTING HOLE PATTERN
 FOR 1.57 (.052) THICK P.C. BOARD



PH BRZ	TIN PLATED NYLON, ULTRA-RED	BRICK RED	794135-1
THIS DRAWING IS A DERIVATIVE WORK	AMERICAN	AMERICAN	AMERICAN
DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY
DRAWN BY	DRAWN BY	DRAWN BY	DRAWN BY
CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY
APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY
DATE	DATE	DATE	DATE
WORKING DRAWING	WORKING DRAWING	WORKING DRAWING	WORKING DRAWING
PART NO.	794135-1		
REV.	1		
UNITE	UNITE		



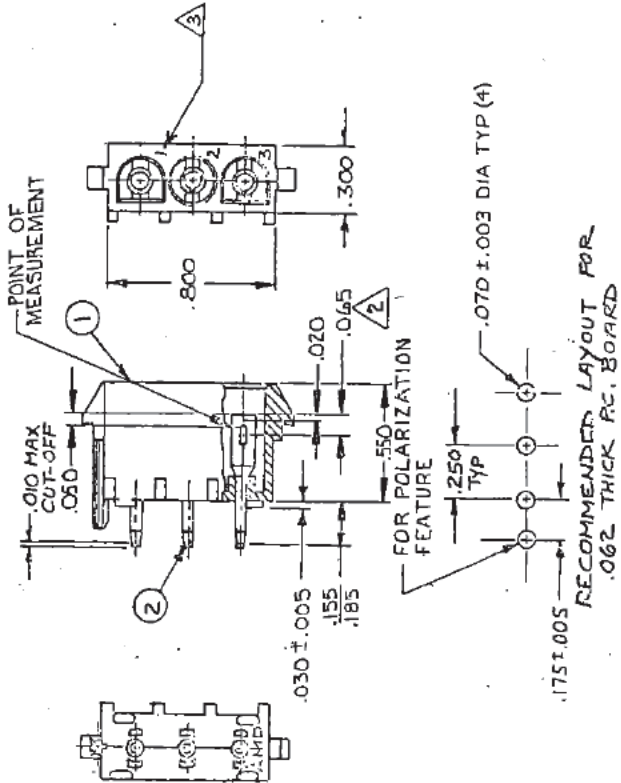
FIG 62
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

DRAWING MADE IN THIRD ANGLE PROJECTION

THIS DRAWING IS UNPUBLISHED.

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19



1. PARTS COMPLY WITH AMP SOLDERABILITY SPEC 109-11-3.

2. CONTACT IS STAMPED FROM PRE-PLATED STOCK WHICH IS PLATED OVERALL WITH .00050 NICKEL, THEN STRIPED WITH .00050 GOLD IN CONTACT AREA INDICATED AND MATTE TIN ON SOLDER TAIL END.

3. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.

ZONE	LTR	DESCRIPTION	DATE	APPROVED
0		RELEASED NEW DRAWING, TT153-17	7-4-67	MY/ΔH
A		REVISED PER ECN M-1383	7-9-67	20M
B		REV PER ECN AG 214	1-27-74	MS
C		RESTORATION	10-24-83	MS/NJ
D		REVISE PER CM-1511	2-3-85	MS
E		RLSD-2 PER PR CM-91-41	4-2-91	MS
F		REV PER ECN 0730-3928-92	1-7-93	JH
G		REV PER EC 0730-0822-94	11-20-04	JH
		REV PER EC 0730-0111-95	3-25-95	JH

NO. OF ASSY	DESCRIPTION	MATERIAL & FINISH	ITEM NO.	PART NO
3	SOCKET	PH BRZ, GOLD / 2	2	643414-2
1	HOUSING	NYLON, 94V-0	1	
3	SOCKET	PH BRZ, PRE-TIN	2	643414-1
1	HOUSING	NYLON, 94V-0	1	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ± ANGLES	CONTRACT NO	AMP INCORPORATED Harrisburg, Pa.
RE: A. SALTZER 3-21-81	CHK: S. H. G. 4/7/83	
APPROVED: [Signature]	DESIGN APPD	SCALE 2:1
MATERIAL	FINISH	SHEET
SEE TABLE	SEE TABLE	643414
SEE TABLE	SEE TABLE	

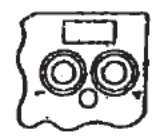
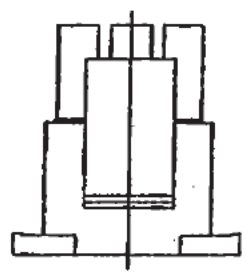
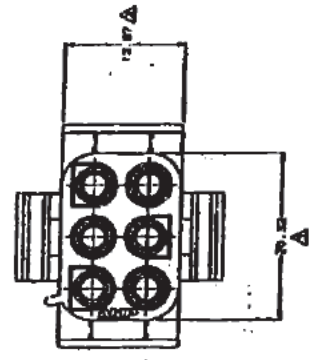
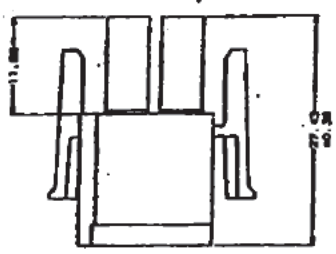
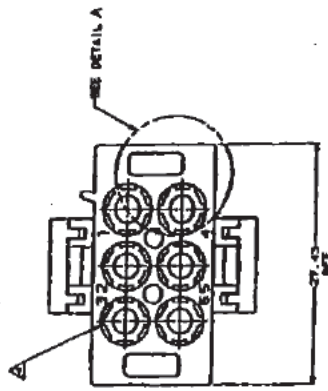
CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.

AMP 1470-15 REV 2-81

1 2 3 4 5 6 7 8

REV	
1	1-15-50
2	11-27-51
3	12-27-51
4	12-27-51
5	12-27-51
6	12-27-51
7	12-27-51
8	12-27-51
9	12-27-51
10	12-27-51
11	12-27-51
12	12-27-51
13	12-27-51
14	12-27-51
15	12-27-51

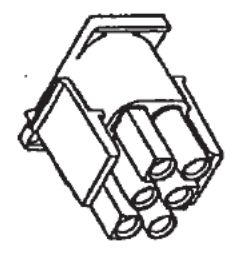
1. MATES WITH APPROPRIATE UNIVERSAL PLUG-4-LEAD CAP OR HEADS.
2. SMALL SIZES ARE PROHIBITED ON THE CIRCUIT TRACKS WHICH COULD CAUSE EXCESSIVE HEATING NOTING FORCE BY UP TO 5 SECONDS 17.0 LB-IN. NO INDIVIDUAL SIZES TRACK SMALL INCREASE THIS FORCE BY OVER 2.3 NEWTONS (5.3 LBS).
- △ DIMENSIONS INDICATED IS AS SHOWN, ADDITIONAL GROWTH DUE TO MANUFACTURE VARIATION MAY OCCUR.
- △ SIZE DIMENSIONAL SPACES, NO SPECIFIC ORIENTATION.



DETAIL A
OPTIONAL CONSTRUCTION

FILE COPY

32.0	11.88	11.88
32.0	11.88	11.88
32.0	11.88	11.88
32.0	11.88	11.88
32.0	11.88	11.88
32.0	11.88	11.88
32.0	11.88	11.88



3-D (OPTIONAL) PERS.
MTS

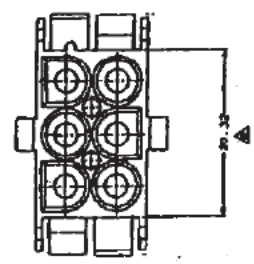
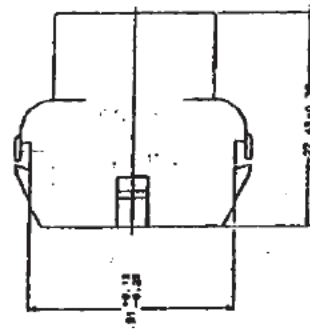
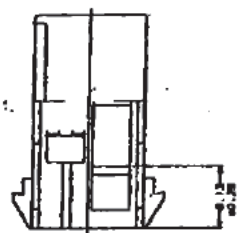
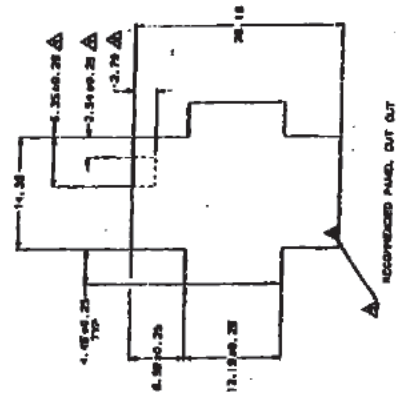
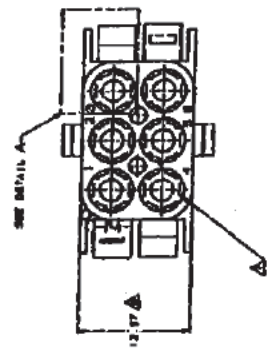
METRIC

UNIVERSAL TYPE-4-LEAD	
PLUG 6 CIRCUIT	
UNIVERSAL TYPE-4-LEAD	
12-27-51	11-27-51
D 0079	P4535
REV 11	REV 1073

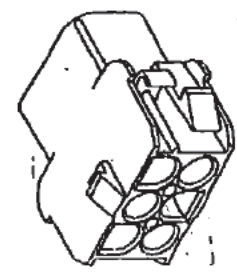
CUSTOMER DRAWING

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

1. NOTES WITH APPROPRIATE UNIVERSAL "MATE-N-LOC" P.M.S.
2. RECOMMENDED PANEL THICKNESS 0.75" - 2.00".
3. PANEL MUST BE PROVIDED IN THAT THE INDICATED DIMENSIONS THE PANEL IN THE SAME DIRECTION AS THE PANEL.
- OPTIONAL FOR SETTING HOUSING IN PANEL.
- CIRCUIT NUMBER 1 LOCATION.
- DIMENSION INDICATED IS AS SHOWN. DIMENSIONS ARE NOT TO BE SUBSEQUENTLY NOT BEING SUBSTITUTED FOR OCCASION.
- SEE FOR DIMENSIONAL SHOWN, AS SPECIFIC DIMENSION.



DETAIL A
OPTIONAL CONSTRUCTION



3-DIMENSIONAL
M.T.S. JOEL

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

METRIC

SCALE: 1:1

DATE: 11/15/54

DESIGNED BY: J. JOEL

CHECKED BY: J. JOEL

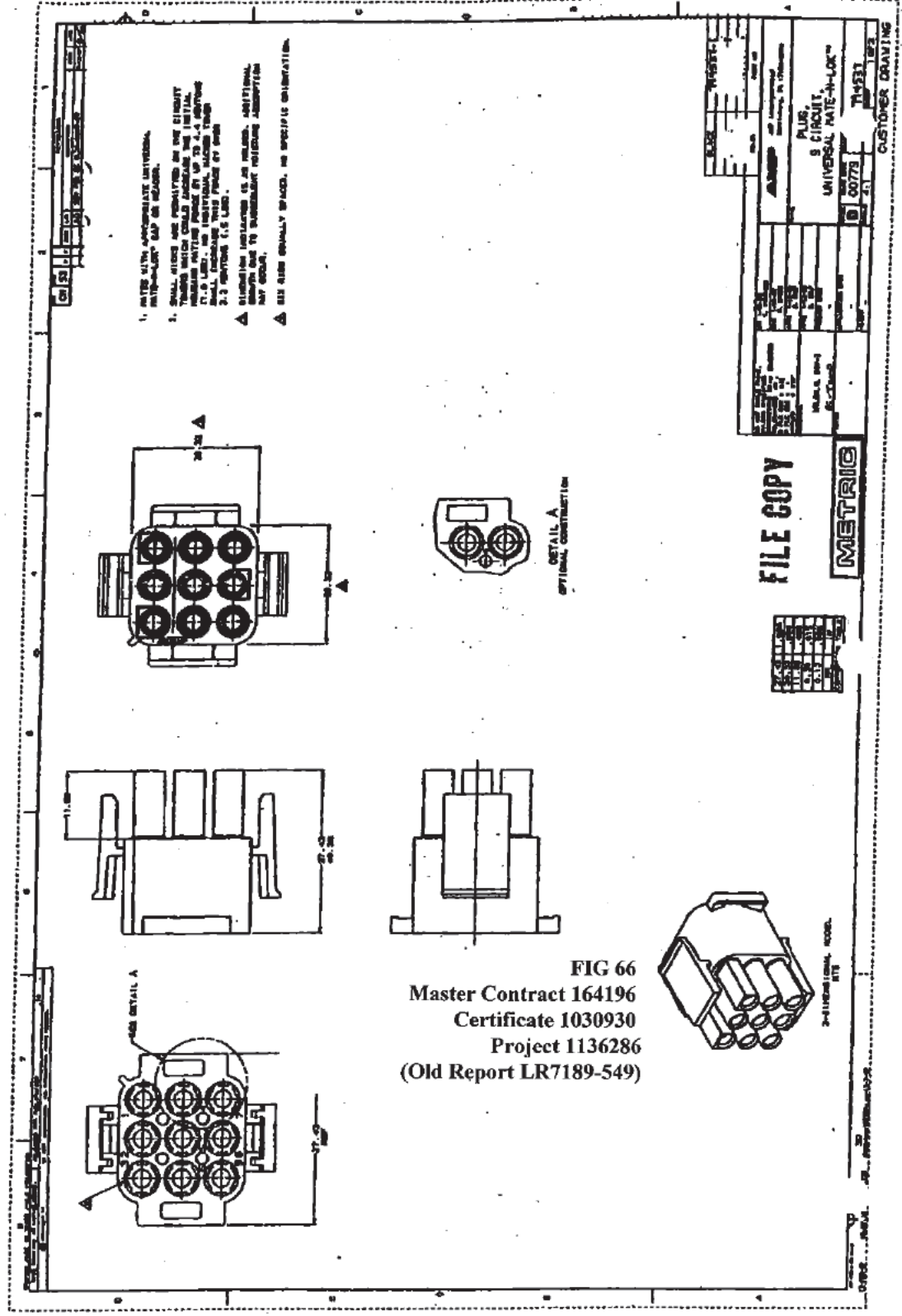
APPROVED BY: J. JOEL

PROJECT NO. 100775

UNIT: RATE-N-LOC™

MANUFACTURED BY: METRIC

FIG 65
Master Contract 164196
Certificate 1030930
Project 1136286
(Old Report LR7189-549)

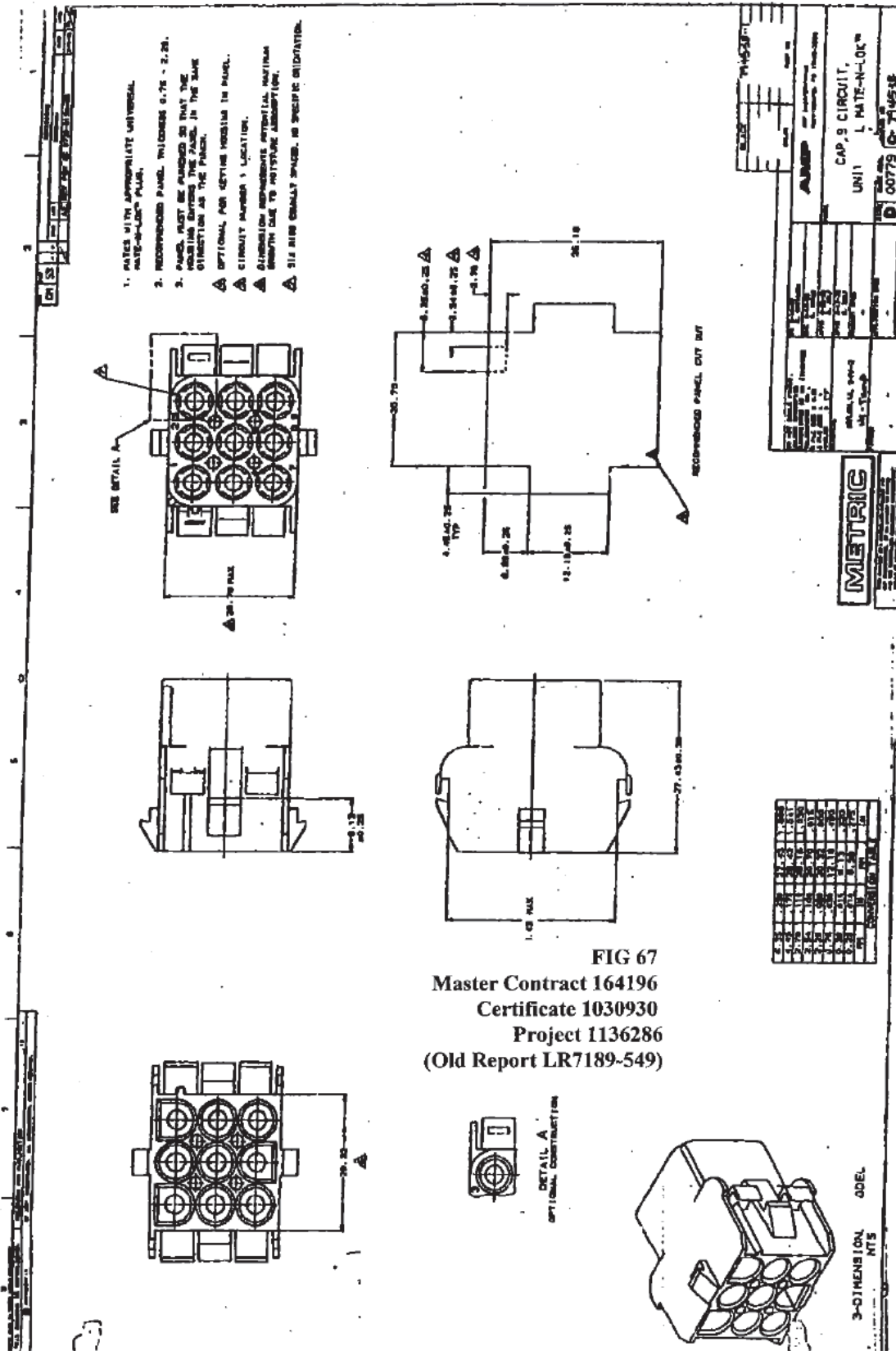


REV	DATE	BY	CHKD	DESCRIPTION
1				PLUG, 8 CIRCUIT, UNIVERSAL RATE-A-LOCK™
2				PLUG, 8 CIRCUIT, UNIVERSAL RATE-A-LOCK™
3				PLUG, 8 CIRCUIT, UNIVERSAL RATE-A-LOCK™
4				PLUG, 8 CIRCUIT, UNIVERSAL RATE-A-LOCK™
5				PLUG, 8 CIRCUIT, UNIVERSAL RATE-A-LOCK™
6				PLUG, 8 CIRCUIT, UNIVERSAL RATE-A-LOCK™
7				PLUG, 8 CIRCUIT, UNIVERSAL RATE-A-LOCK™
8				PLUG, 8 CIRCUIT, UNIVERSAL RATE-A-LOCK™

FILE COPY
METRIC

REV	DATE	BY	CHKD	DESCRIPTION
1				
2				
3				
4				
5				
6				
7				
8				

CUSTOMER DRAWING
 714531
 80775



1. PANELS WITH APPROPRIATE UNIVERSAL MATE-IN-LOC™ PANEL.
 2. RECOMMENDED PANEL, W/COVERS 6.75 - 2.26.
 3. PANELS MUST BE ASSEMBLED SO THAT THE HOUSING DIMENSIONS THRU PANEL IS THE SAME DIMENSION AS THE PANEL.
- OPTIONAL FOR GETTING POSITION IN PANEL.
 - CIRCUIT NUMBER 1 LOCATION.
 - DIMENSION REPRESENTS POTENTIAL MAXIMUM GROWTH DUE TO FUTURE MANUFACTURING.
 - SIZING ALSO QUALITY SPACE, IN SPECIFIC INDUSTRY.

FIG 67
 Master Contract 164196
 Certificate 1030930
 Project 1136286
 (Old Report LR7189-549)

UNITS	30	15	10	5
CIRCUIT	15	10	5	5
RELAY	15	10	5	5
DIODE	15	10	5	5
TRANSFORMER	15	10	5	5
METER	15	10	5	5
COMMUNICATIONS	15	10	5	5

SEE METRIC A

SEE METRIC B

RECOMMENDED PANEL OUT IN

SEE METRIC C

SEE METRIC D

SEE METRIC E

SEE METRIC F

SEE METRIC G

SEE METRIC H

SEE METRIC I

SEE METRIC J

SEE METRIC K

SEE METRIC L

SEE METRIC M

SEE METRIC N

SEE METRIC O

SEE METRIC P

SEE METRIC Q

SEE METRIC R

SEE METRIC S

SEE METRIC T

SEE METRIC U

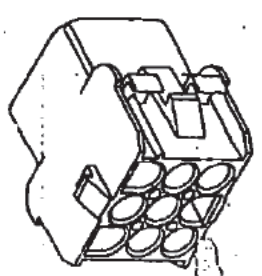
SEE METRIC V

SEE METRIC W

SEE METRIC X

SEE METRIC Y



SEE METRIC Z



3-DIMENSION MTS ODEL

Universal MATE-N-LOK II Connectors

Product Facts

- Ultimate reliability
- For use where repair or replacement would be difficult
- Pins and sockets can be intermixed in the same housing
- Available in 2 thru 15 Circuit sizes for free hanging or panel mount wire-to-wire connection
- Mate with standard Universal MATE-N-LOK Housings and PC Board Headers
- Uses standard Universal MATE-N-LOK panel cutouts and strain reliefs
- Polarized housings available in UL94V-0 flammability rated material
- Enclosed contacts for shock protection
- F-Crimp terminals accept 30-10 AWG (.05-5.0 mm²) wire sizes
- Contacts available in strip and loose form
- Lanceless contacts for tangle free handling
- Insulation capability to .200 [5.08] diameter
- Connector design provides assurance of complete contact insertion
- Three point stabilization precisely controls contact alignment, minimizing stubbing
- Tin or duplex gold plated contacts
- Contacts are on .250 [6.35] centerline spacing
- Not for interrupting current
- Recognized under the Component Program of  Underwriters Laboratories, Inc. File No. E28476
- Certified by Canadian Standards Association  File No. LR 16455-113
- Passed test by VDE under their Registration Number 3915/Continuous Surveillance



Performance Characteristics

The Universal MATE-N-LOK II Connector performance characteristics found on pages 4 and 5 are based on free hanging and panel mount connectors, loaded with contacts crimped on stranded wire.

Dielectric Withstanding Voltage
5.0 KV AC or DC between adjacent circuits initially

Insulation Resistance
1000 megohms minimum between adjacent circuits

Voltage Rating 600V AC or DC

Connector Mating
Split Pin — 1.5 lb. max. per circuit

Connector Unmating
Split Pin — .5 lb. min. per circuit

Contact Insertion Force 3.0 lb. max. per contact unassembled

Contact Retention 35 lb. min. per contact

Durability 50 cycles, mating and unmating

Technical Documents

Product Specification
108-1090 Universal MATE-N-LOK II Connectors

Application Specification
114-1043 Universal MATE-N-LOK II Contacts

Instruction Sheet
408-3200 Housing, Contacts and Accessories

For drawings, technical data or samples, contact your AMP sales engineer or call the AMP Product Information Center: 1-800-522-6752. Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents. Specifications subject to change. Consult AMP for latest specifications.

Universal MATE-N-LOK II Connectors (Continued)

Performance Characteristics (Continued)

Maximum Current Maximum current rating of Universal MATE-N-LOK II connectors is limited by the maximum operating temperature of the housings which is 105°C including the temperature rise of the contacts which is a maximum of 30°C. There are several variables which have a direct effect on this maximum current-carrying capability for a given connector and must be considered for each application. These variables are:

Wire Size Larger diameter wire will carry more current since it has less internal resistance to current flow and thus generates less heat. Longer wire lengths also enhance current carrying capabilities since the wire conducts heat away from the connector.

Connector Size In general, the more circuits in a connector, the less current can be carried.

Ambient Temperature The higher the ambient temperature, the less current can be carried in any given connector.

Universal MATE-N-LOK II connectors also will withstand the following tests:

Vibration 10-55-10 cycles per minute at .06 inch total excursion

Physical Shock 18 drops, 50 g saw-tooth at 10 milliseconds

Housing Panel Retention 75 lb. min.

Housing Lock Strength 35 lb. min.

Thermal Shock -55°C to +85°C

Temperature-Humidity Cycling 25°C to 65°C at 95 RH

Corrosion 48 hr. at 5% salt concentration

Related Product Data

Product Specification

108-1090 Universal MATE-N-LOK II Connectors

Current Rating Verification for 30°C Maximum Temperature Rise 100% Energized

Wire-to-Wire

UMNL II Calculated Current Table

Number of Circuits	Wire Gauge									
	10	12	14	16	18	20	22	24	26	30
2	19.00	18.00	17.00	14.50	13.00	10.00	8.00	6.50	5.50	3.50
3	17.50	16.50	15.50	13.00	12.00	9.00	7.50	6.00	5.00	3.00
4	16.50	15.50	15.00	12.50	11.00	8.50	7.00	5.50	4.50	3.00
5	16.00	15.00	14.00	12.00	10.50	8.00	6.50	5.50	4.50	3.00
6 Matrix	15.00	14.00	13.00	11.00	9.50	7.50	6.00	5.00	4.00	2.50
8	14.50	14.00	13.00	10.50	9.50	7.50	6.00	5.00	4.00	2.50
9	13.50	12.50	11.50	9.50	8.50	6.50	5.50	4.50	3.50	2.00
10	14.00	13.00	12.50	10.00	9.00	7.00	5.50	4.50	3.50	2.50
12	12.50	12.00	11.00	9.00	8.00	6.00	5.00	4.00	3.00	2.00
15	12.00	11.50	10.00	8.50	7.50	6.00	4.50	4.00	3.00	2.00

Values are based on initial Temperature Rise versus Current Testing and are intended to be a guide in the selection of a connector family. All applications should be tested by the end user. The values listed are per circuit for fully loaded housings being 100% energized. Note: All combinations were not tested, and this chart contains interpolated and extrapolated values.

Minimum Wire Lengths for T-Rise vs. Current Testing

AWG	Min. Length (in.)	AWG	Min. Length (in.)
30	2.6	18	9.4
28	3.2	16	11.3
26	4.1	14	13.7
24	5.1	12	16.4
20	7.8	10	19.3

Note: If wire lengths used are less than those listed above, the current carrying ability of the system will be reduced due to less heat being conducted away from the connector. The customer should fully test all applications.

Wire-to-Board

Due to the vast differences in trace geometry and printed circuit board configurations, we are unable to provide a separate current carrying chart for our printed circuit board header products. However, the above Wire-to-Wire charts may be used as a guideline for headers if the trace width and thickness is equal to the listed wire gauge. For vertical headers, only 75% of the Wire-to-Wire value should be used. The chart values are only a tool for connector selection and will require the customer to fully test their application.

Termination Resistance/Contact Crimp Tensile Force

Wire Size		Termination Resistance		Contact Crimp Tensile Force	
AWG	mm ²	Test Current (Amps)	Resistance Milliohms (Max. Init.)	Force (Min.) lbs.	N
30	.05	—	—	1.5	7
28	.08	—	—	3	13
26	.12	—	—	5	22
24	.2	1.5	3.50	7	31
22	.3	3	3.50	12	53
20	.5	4.5	3.00	17	66
18	.8	6	3.00	30	133
16	1.2	8	2.75	45	200
14	2.0	10	2.75	50	222
12	3.0	—	—	60	267
10	5.0	—	—	70	311

Note: This is the total resistance between wire crimps of a male

For drawings, technical data or samples, contact your AMP sales engineer or call the AMP Product Information Department. Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents. Specifications subject to change. Consult AMP for latest specifications.

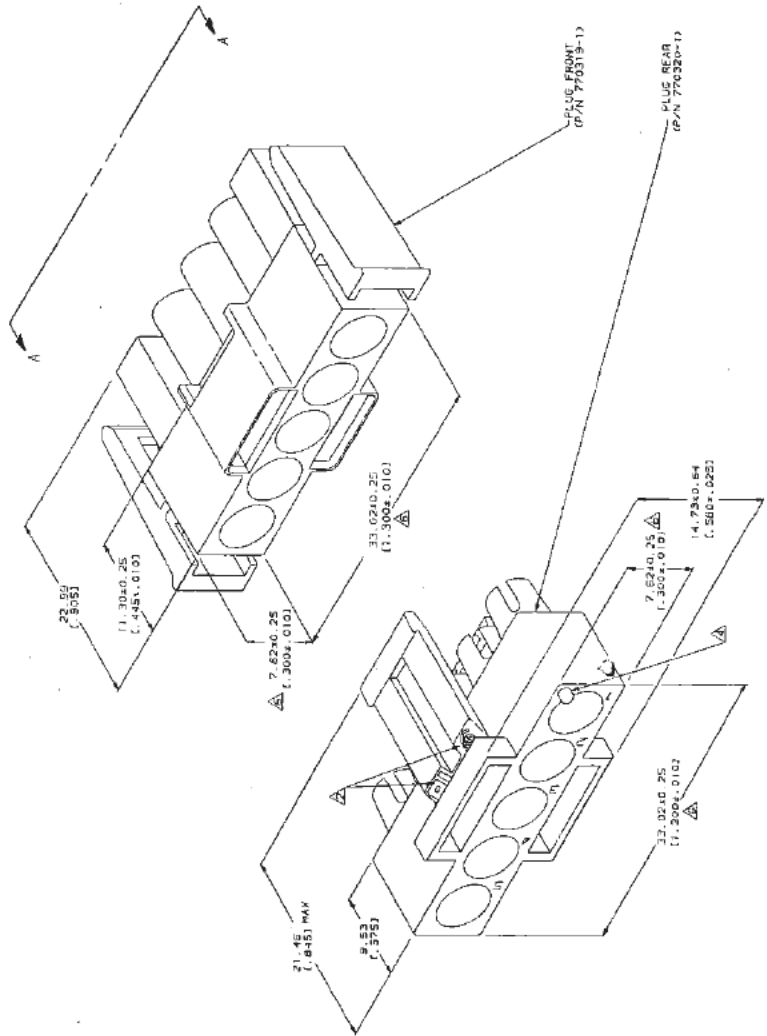
Connectors
Universal MATE-N-LOK II

<u>Kit Part No.</u>	<u>Front Part No.</u>	<u>Back Part No.</u>	<u>Description</u>
770 016-1	770 319-1	770 320-1	5 circuit plug
770 017-1	770 031-1	770 032-1	2 circuit plug
770 018-1	770 033-1	770 034-1	3 circuit plug
770 019-1	770 035-1	770 036-1	4 circuit plug
770 020-1	770 037-1	770 038-1	6 circuit plug
770 021-1	770 039-1	770 040-1	9 circuit plug
770 022-1	770 041-1	770 042-1	12 circuit plug
770 023-1	770 043-1	770 044-1	15 circuit plug
770 024-1	770 045-1	770 046-1	2 circuit plug
770 025-1	770 047-1	770 048-1	3 circuit plug
770 026-1	770 049-1	770 050-1	4 circuit plug
770 027-1	770 051-1	770 052-1	6 circuit plug
770 028-1	770 053-1	770 054-1	9 circuit plug
770 029-1	770 055-1	770 056-1	12 circuit plug
770 030-1	770 057-1	770 058-1	15 circuit plug

STANDARD WORK IS TO BE USED UNLESS SPECIFICALLY NOTED OTHERWISE IN THIS DRAWING. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO VERIFY THE DIMENSIONS AND TOLERANCES OF THE PARTS AND MATERIALS USED IN THE FABRICATION OF THIS DRAWING.

REV	DATE	DESCRIPTION
1	10/11/79	INITIAL DESIGN
2	11/15/79	REVISED TO ACCOMMODATE MANUFACTURING
3	12/10/79	REVISED TO ACCOMMODATE MANUFACTURING
4	01/15/80	REVISED TO ACCOMMODATE MANUFACTURING
5	02/15/80	REVISED TO ACCOMMODATE MANUFACTURING
6	03/15/80	REVISED TO ACCOMMODATE MANUFACTURING
7	04/15/80	REVISED TO ACCOMMODATE MANUFACTURING
8	05/15/80	REVISED TO ACCOMMODATE MANUFACTURING
9	06/15/80	REVISED TO ACCOMMODATE MANUFACTURING
10	07/15/80	REVISED TO ACCOMMODATE MANUFACTURING
11	08/15/80	REVISED TO ACCOMMODATE MANUFACTURING
12	09/15/80	REVISED TO ACCOMMODATE MANUFACTURING
13	10/15/80	REVISED TO ACCOMMODATE MANUFACTURING
14	11/15/80	REVISED TO ACCOMMODATE MANUFACTURING
15	12/15/80	REVISED TO ACCOMMODATE MANUFACTURING

- 1. BULK PACKAGED, UNASSEMBLED.
- APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
- AMP LOGO LOCATED THIS SURFACE.
- CIRCUIT NUMBER ONE IDENTIFICATION BUTTON AND CIRCUIT IDENTIFICATION NUMBERS ARE EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CAVITIES.
- NEK HOLD CONSTRUCTION PROVIDES MATERIAL REDUCTION COMING AT BASE OF SILOS WITH NO CIRCUIT AS OPTIONAL.
- DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.



770019-1
PART NUMBER

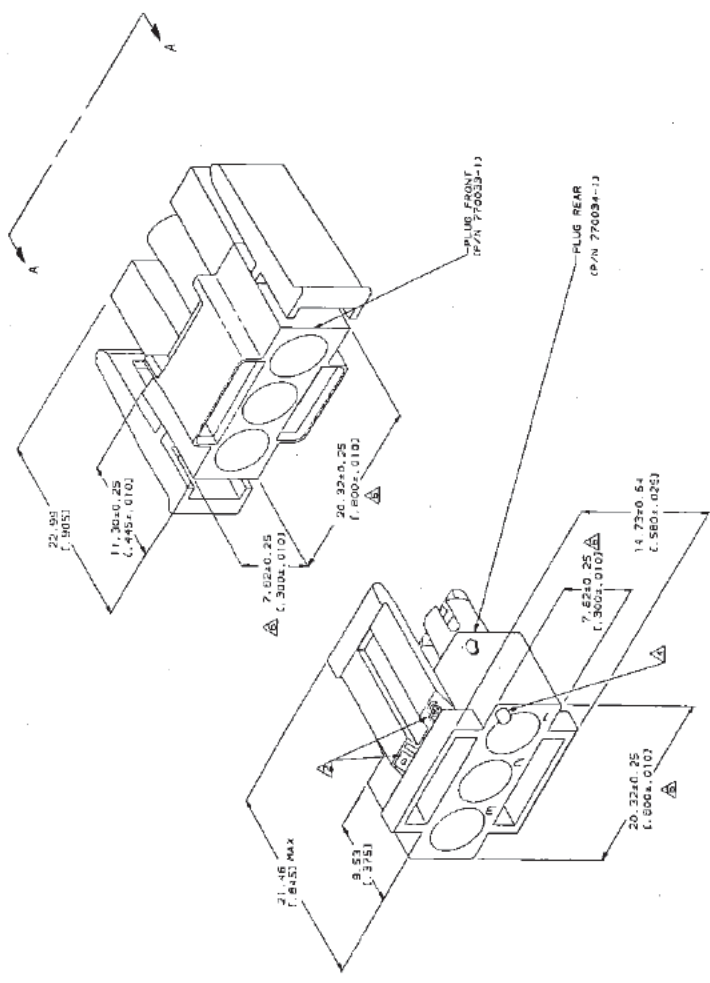
PART NO		770019-1	
OR 1.50 IN	AMP INCORPORATED		
OR 1.50 IN	1000 WOODBURY AVE		
OR 1.50 IN	WILMINGTON, DE 19810		
OR 1.50 IN	DATE 11/15/79		
OR 1.50 IN	BY 1000		
OR 1.50 IN	APPROVED		
OR 1.50 IN	PROJECT		
OR 1.50 IN	DESCRIPTION		
OR 1.50 IN	PLUG HOUSING KIT		
OR 1.50 IN	CIRCUIT, IN-LINE		
OR 1.50 IN	UNIVERSAL MAKE-N-LOK II		
OR 1.50 IN	QUANTITY	770019	770019
OR 1.50 IN	SCALE	5:1	5:1
OR 1.50 IN	FIG. NO.	770019	770019
OR 1.50 IN	REV. NO.	1	1
OR 1.50 IN	DATE	11/15/79	11/15/79

CUSTOMER DRAWING

REV	DATE	BY	CHKD	APP'D
1	REV PER E.S. 01-30-1991			
2				
3				
4				
5				
6				
7				
8				
9				
10				

REV	DATE	BY	CHKD	APP'D
1	REV PER E.S. 01-30-1991			
2				
3				
4				
5				
6				
7				
8				
9				
10				

1. BULK PACKAGED, UNASSEMBLED.
2. APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
3. AMP LOGO LOCATED THIS SURFACE.
4. CIRCUIT NUMBER ONE IDENTIFICATION BUTTON AND CIRCUIT IDENTIFICATION NUMBER ONE LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CATHODES.
5. NEW HOLD CONSTRUCTION PROVIDES MATERIAL REDUCTION CORING AT BASE OF SILDS WITH NO CORING AS OPTIONAL.
6. DIMENSION INDICATED IS AS MOULDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.



770018-1	PART NUMBER
770018	PART NO
AMP	AMP INCORPORATED
PLUG HOUSING KIT,	
3 CIRCUIT, IN-LINE,	
UNIVERSAL MATE-N-LOK	II
DATE	REV
007/93	5.1
770018	100-1

METRIC

CUSTOMER DRAWING

DATE: 01/30/91 BY: E.S. 01-30-1991

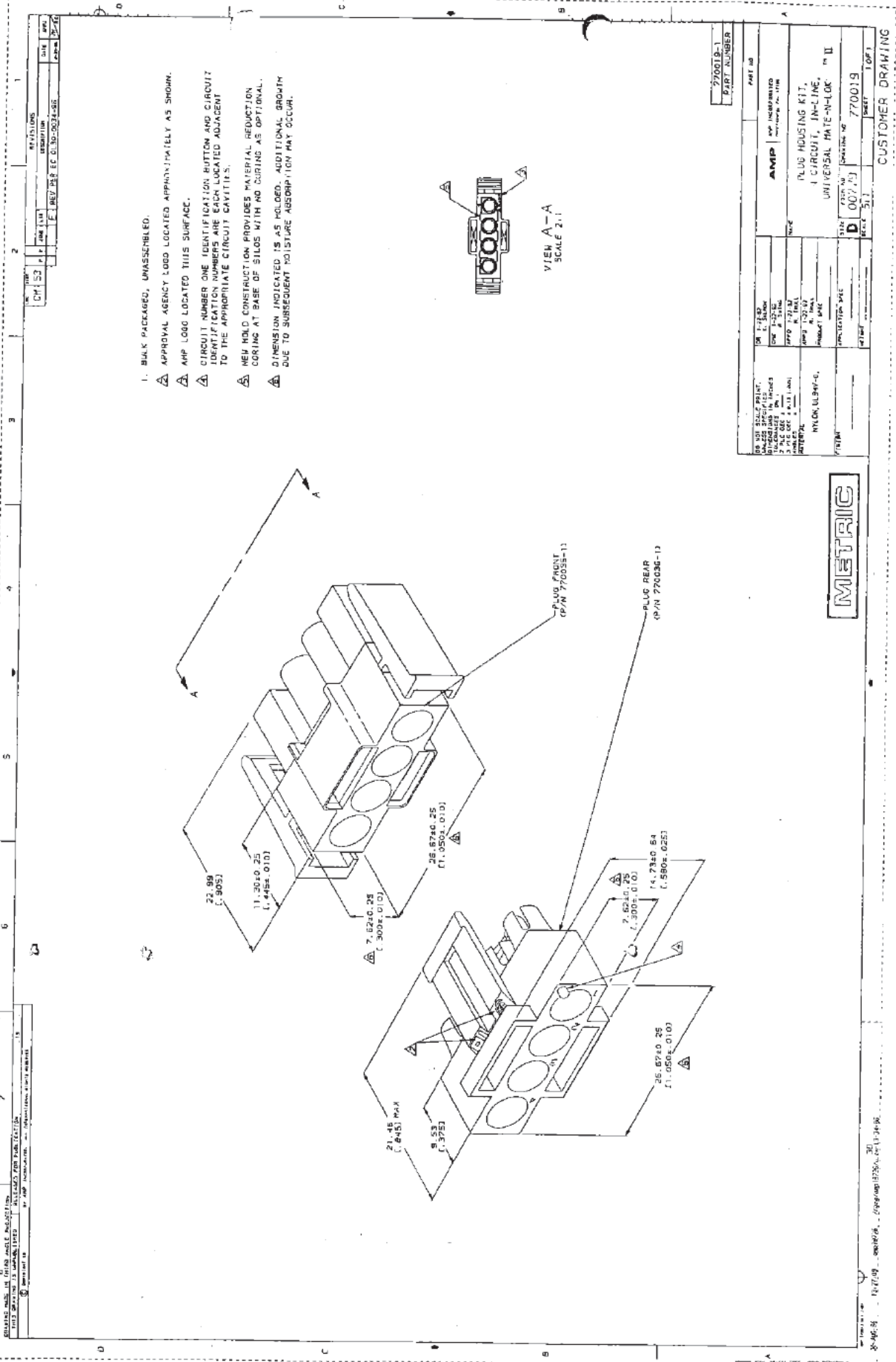
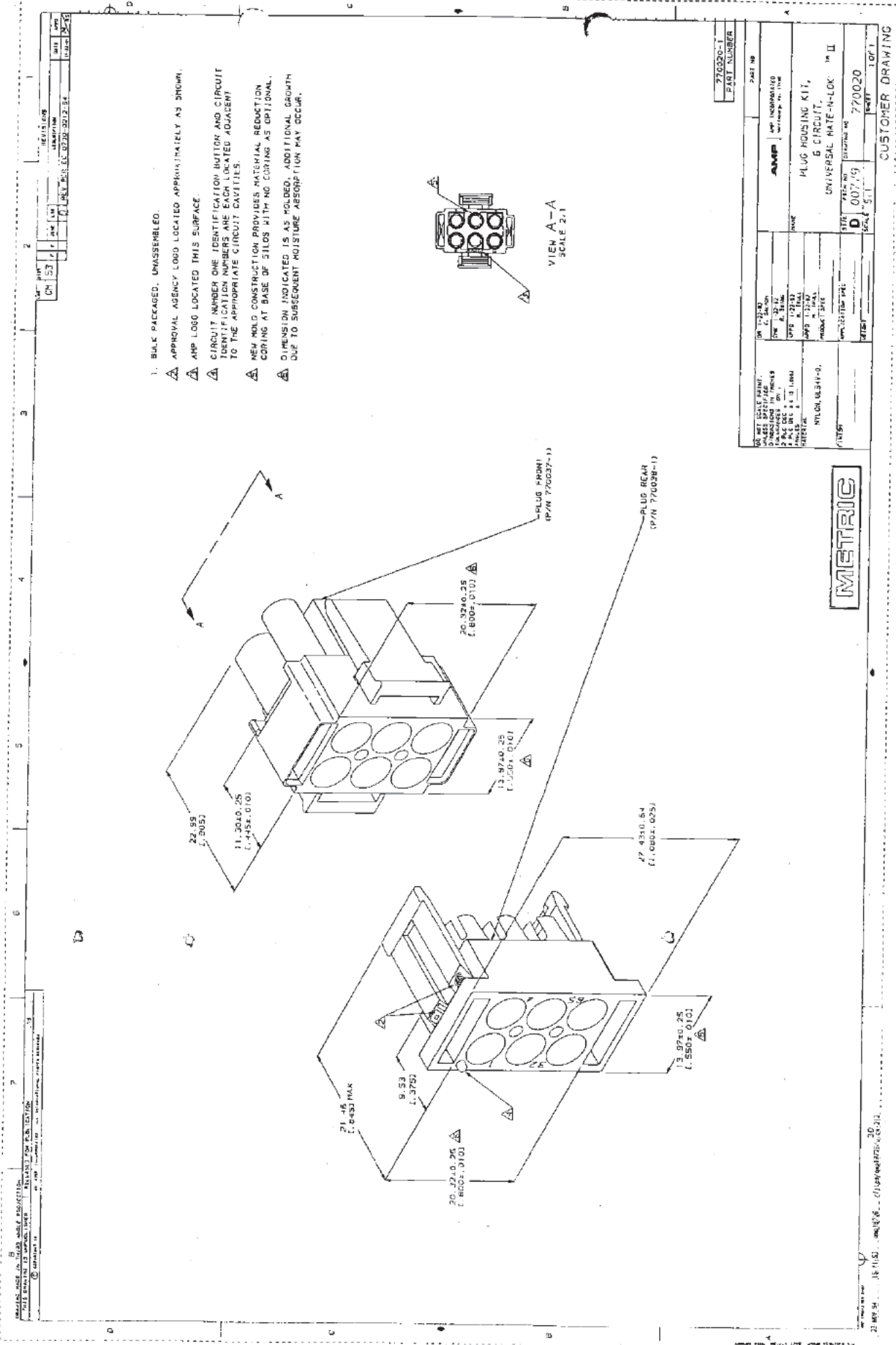


FIG 74
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



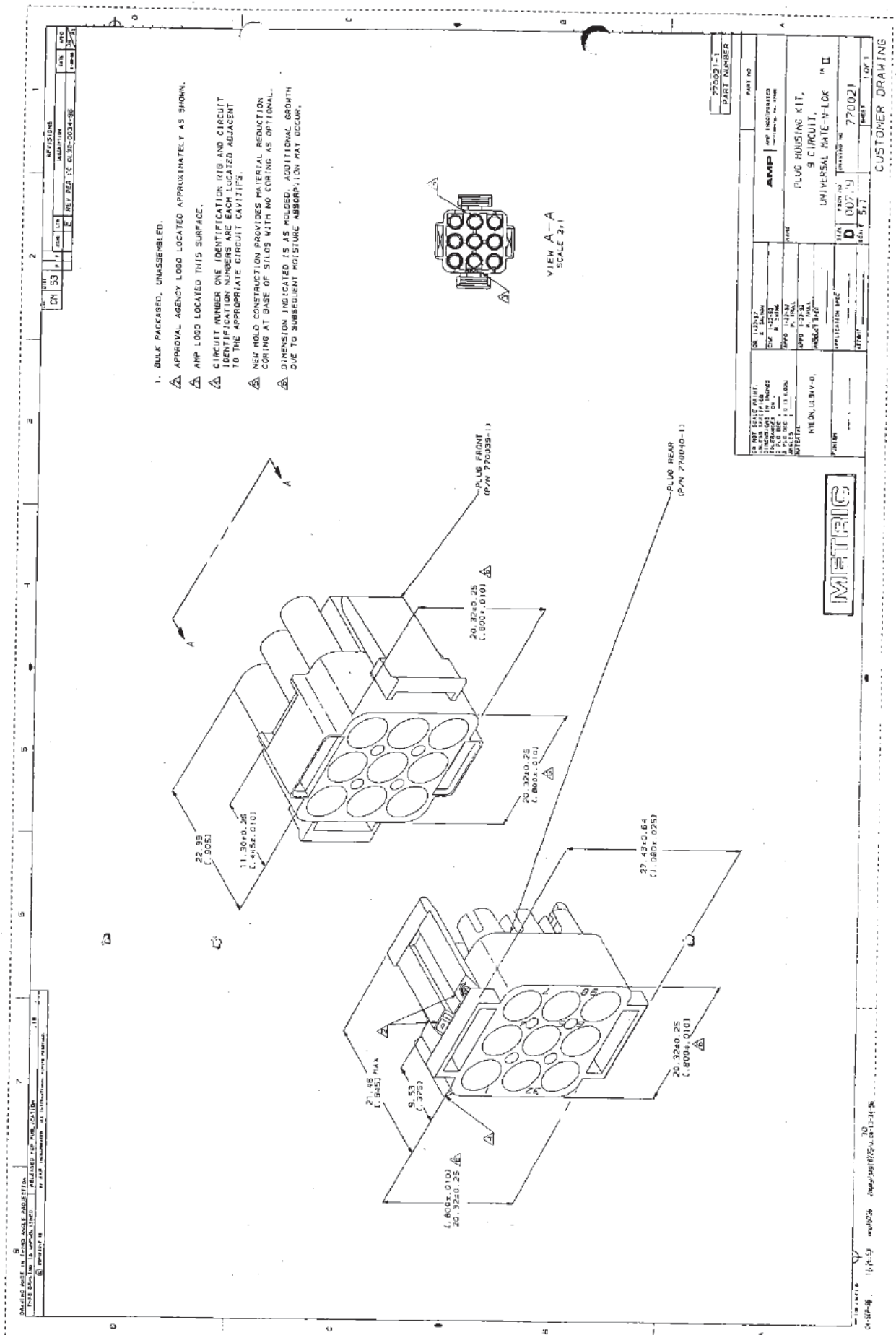
1. BULK PACKAGED, UNASSEMBLED.
- △ APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
- △ AMP LOGO LOCATED THIS SURFACE.
- △ CIRCUIT NUMBER ONE IDENTIFICATION BUTTON AND CIRCUIT IDENTIFICATION BUTTONS ARE EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CAVITIES.
- △ NEW MOLD CONSTRUCTION PROVIDES MATERIAL REDUCTION CORING AT BASE OF SILDS WITH NO CORING AS OPTIONAL.
- △ DIMENSION INDICATED IS AS MOULDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.

770020-1		PART NUMBER	
PART NO		770020	
MFG INFORMATION		MFG	
NAME		PLUG HOUSING KIT, 6 CIRCUIT, UNIVERSAL MATE-N-LOK™ II	
QTY		1	
DATE		007/93	
REV		D	
DRAWN BY		5614 ST	
CHECKED BY		770020	
APPROVED BY		10/1	
DATE		10/1	

METRIC

CUSTOMER DRAWING

FIG 75
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



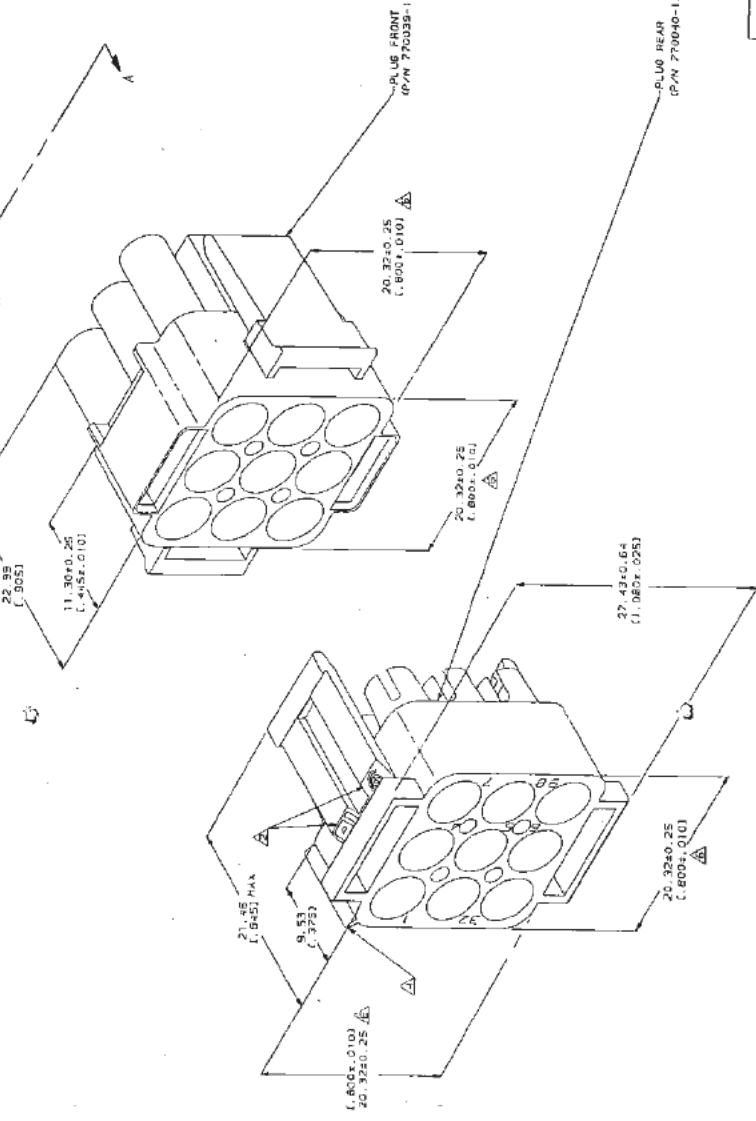
- 1. BULK PACKAGED, UNASSEMBLED.
- △ APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
- △ AMP LOGO LOCATED THIS SURFACE.
- △ CIRCUIT NUMBER ONE IDENTIFICATION (118 AND CIRCUIT IDENTIFICATION) SHOWN IN EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CAVITIES.
- △ NEW MOLD CONSTRUCTION PROVIDES MATERIAL REDUCTION COING AT BASE OF SLOGS WITH NO COING AS OPTIONAL.
- △ DIMENSION INDICATED AS IS INCLOS. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.

VIEW A-A
SCALE 2:1

DR 1-15-62 PLUG CIRCUIT NO. 118 SLOTTED RECEPTACLE MATERIAL: PLASSIC 400	OR 1-15-62 AMP AMP IDENTIFIED CIRCUIT NO. 118 SLOTTED RECEPTACLE MATERIAL: PLASSIC 400	770021-1 PART NUMBER
DR 1-15-62 PLUG HOUSING KIT, 9 CIRCUIT, UNIVERSAL RATE-N-LOCK	770021 PART NUMBER	770021-1 PART NUMBER
DR 1-15-62 UNIVERSAL RATE-N-LOCK 9 CIRCUIT	770021 PART NUMBER	770021-1 PART NUMBER
SHT. NO. 1 OF 1 PART NO. 770021 QUANTITY 571		SHT. NO. 1 OF 1 PART NO. 770021 QUANTITY 571

METRIC

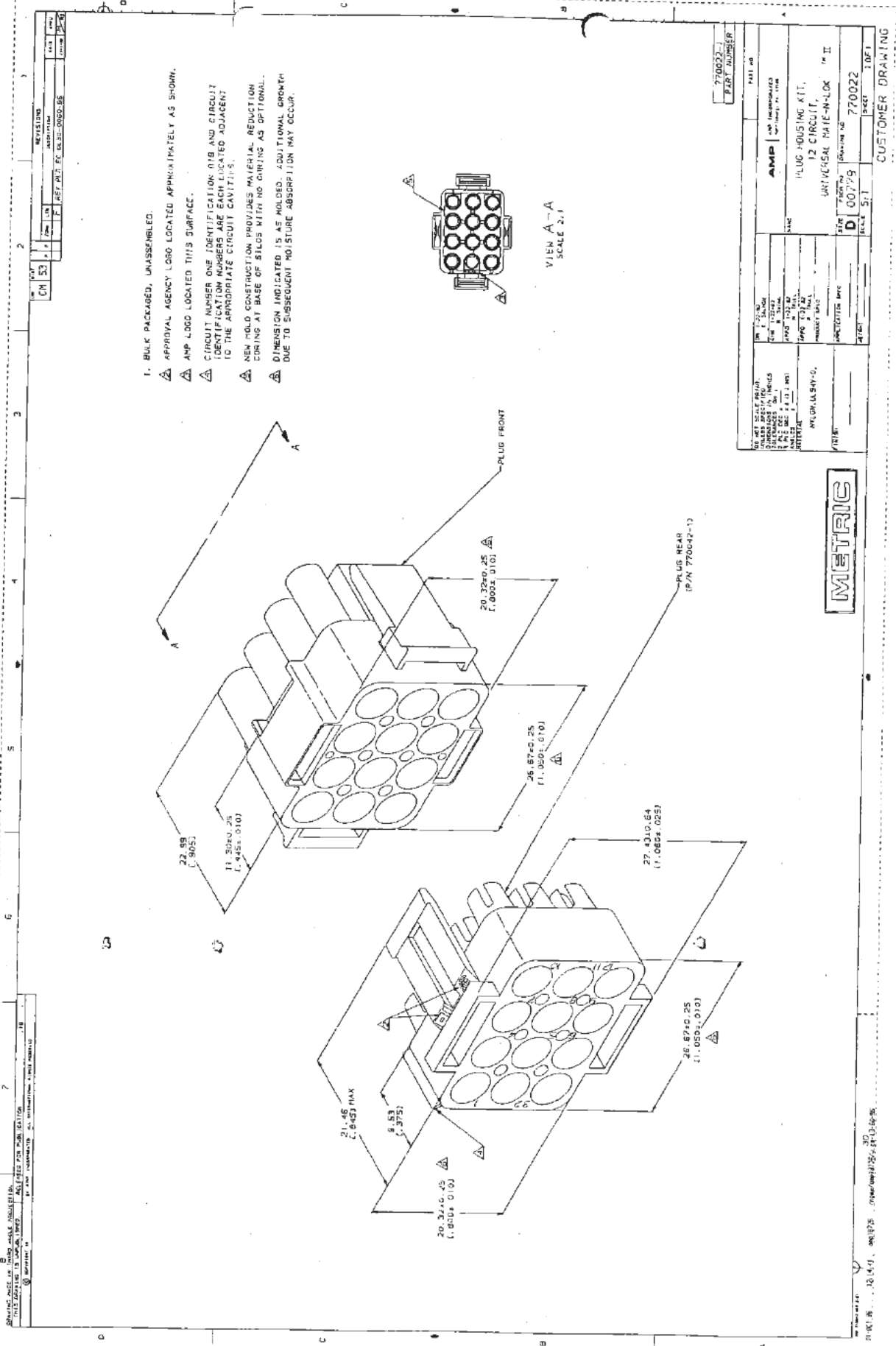
CUSTOMER DRAWING



5 DR 1-15-62
MATERIAL: PLASSIC 400

01-507-95 14-1-59
01-507-95 14-1-59

FIG 76
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



- 1. BULK PACKAGED, UNASSEMBLED.
- △ APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
- △ AMP LOGO LOCATED THIS SURFACE.
- △ CIRCUIT NUMBER ONE IDENTIFICATION (718 AND CIRCUIT IDENTIFICATION NUMBERS ARE EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CAVITIES).
- △ NEW MOLD CONSTRUCTION PROVIDES MATERIAL REDUCTION CORING AT BASE OF SILCS WITH NO CORING AS OPTIONAL.
- △ DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.

VIEW A-A
SCALE 2:1



PART NO		770022-1	
PART NUMBER		770022-1	
NAME		AMP PLUG HOUSING KIT, 12 CIRCUIT, UNIKESSEN, N1E-N-LOC™ II	
DRAWING NO		D 00779	
REV		770022	
SHEET		1 OF 1	
CUSTOMER DRAWING		770022	

DATE: 10/14/88
DRAWN: J. J. BARNETT
CHECKED: J. J. BARNETT
APPROVED: J. J. BARNETT

FIG 77
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

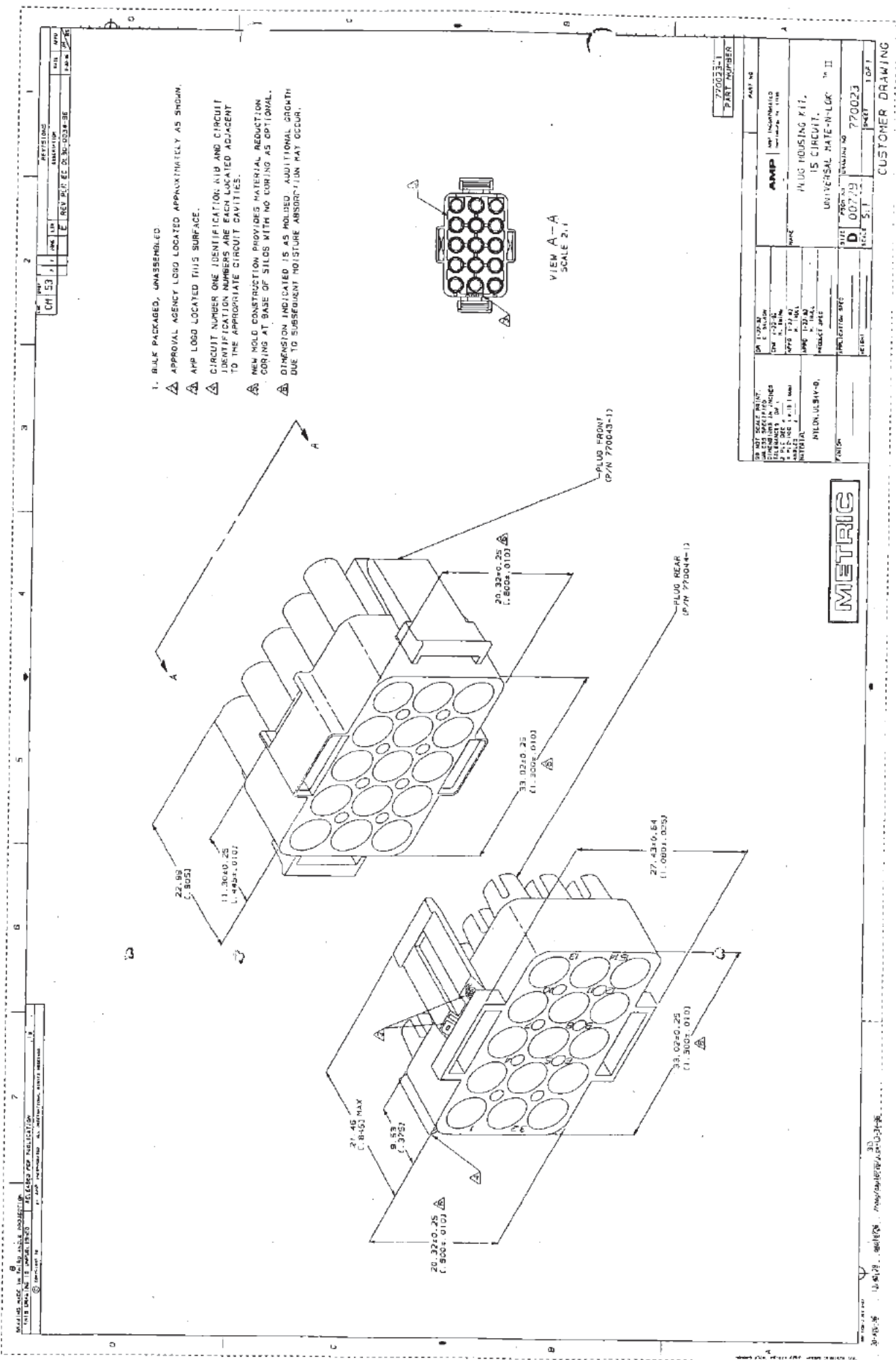


FIG 78
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

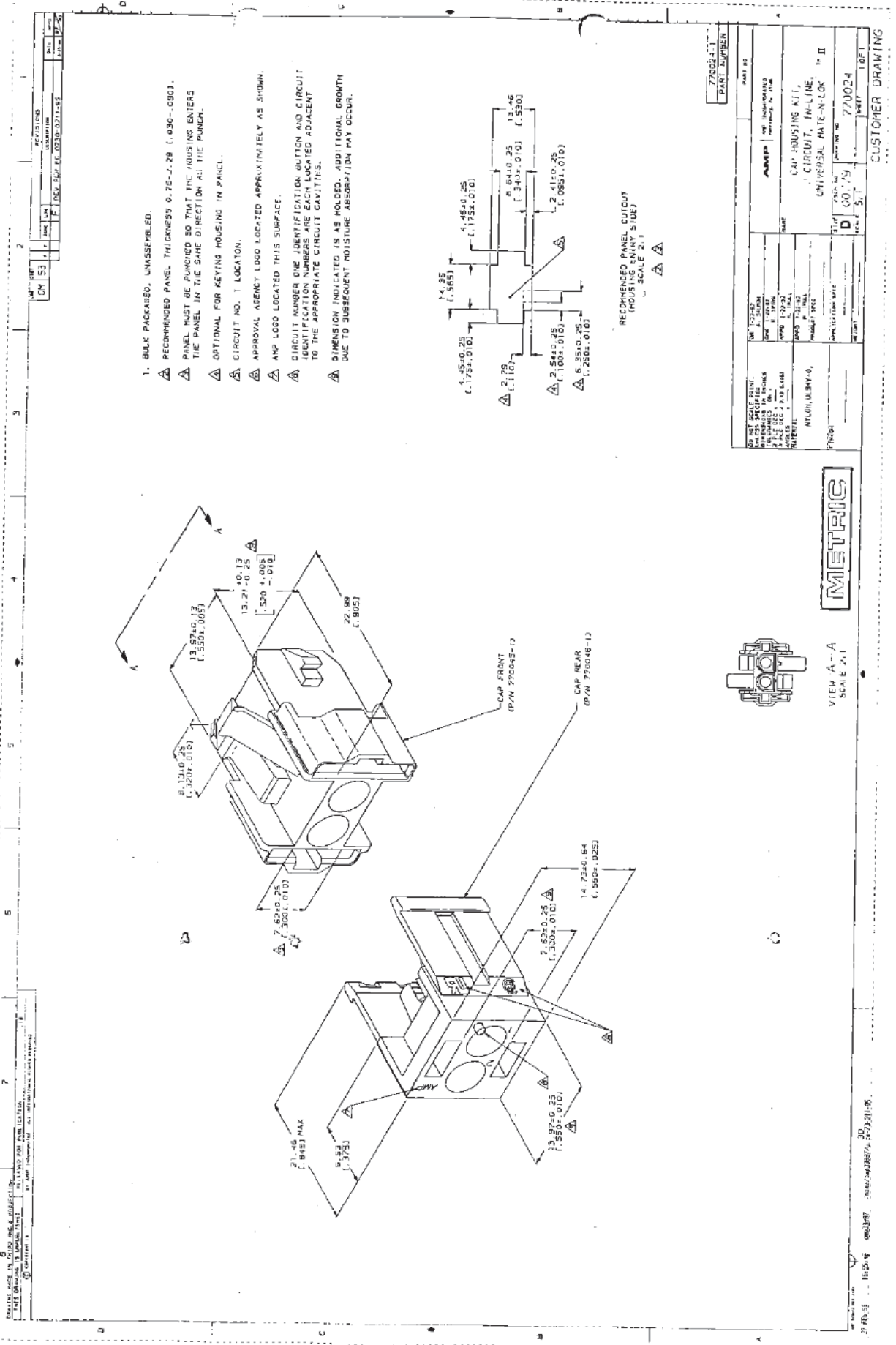


FIG 79
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

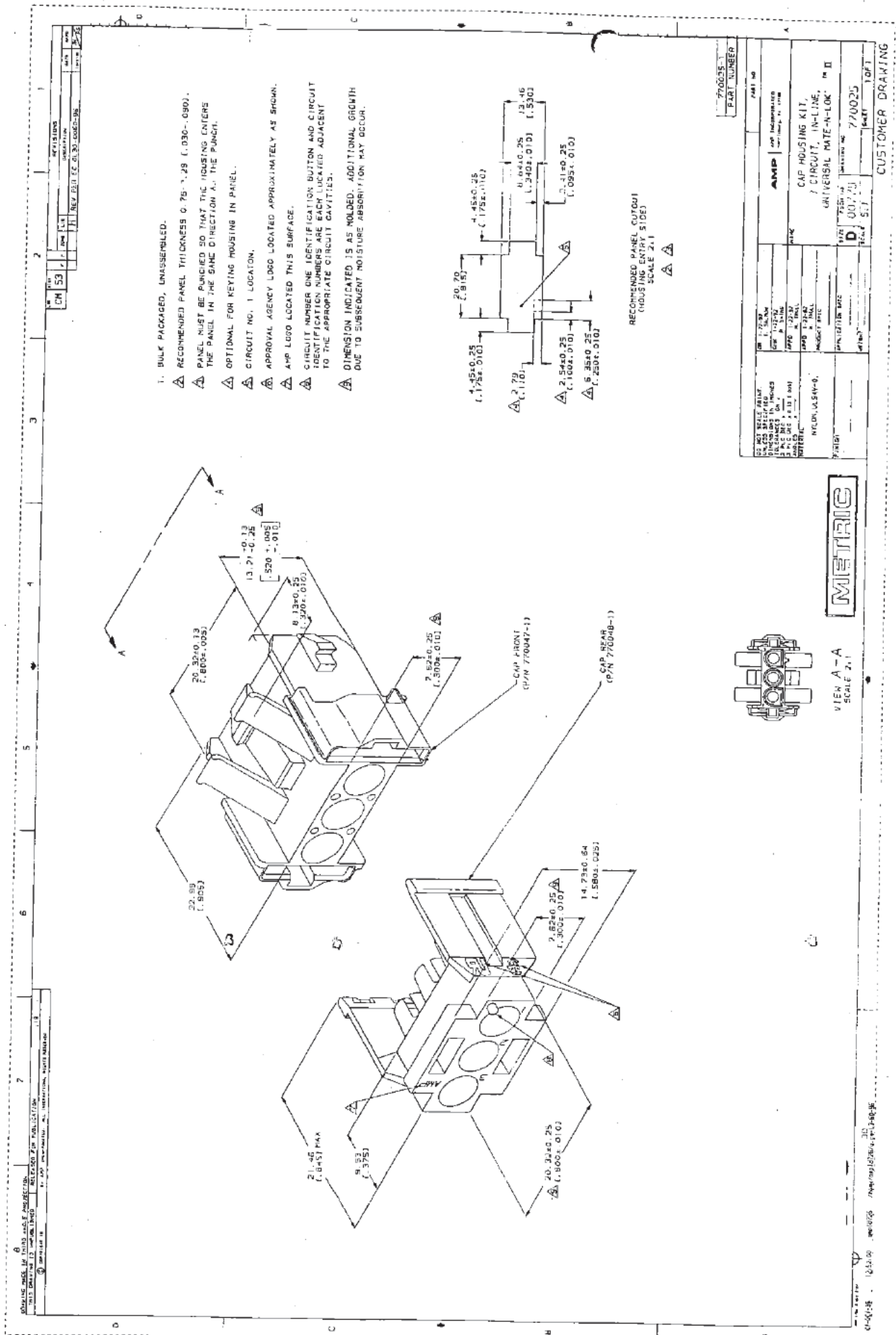
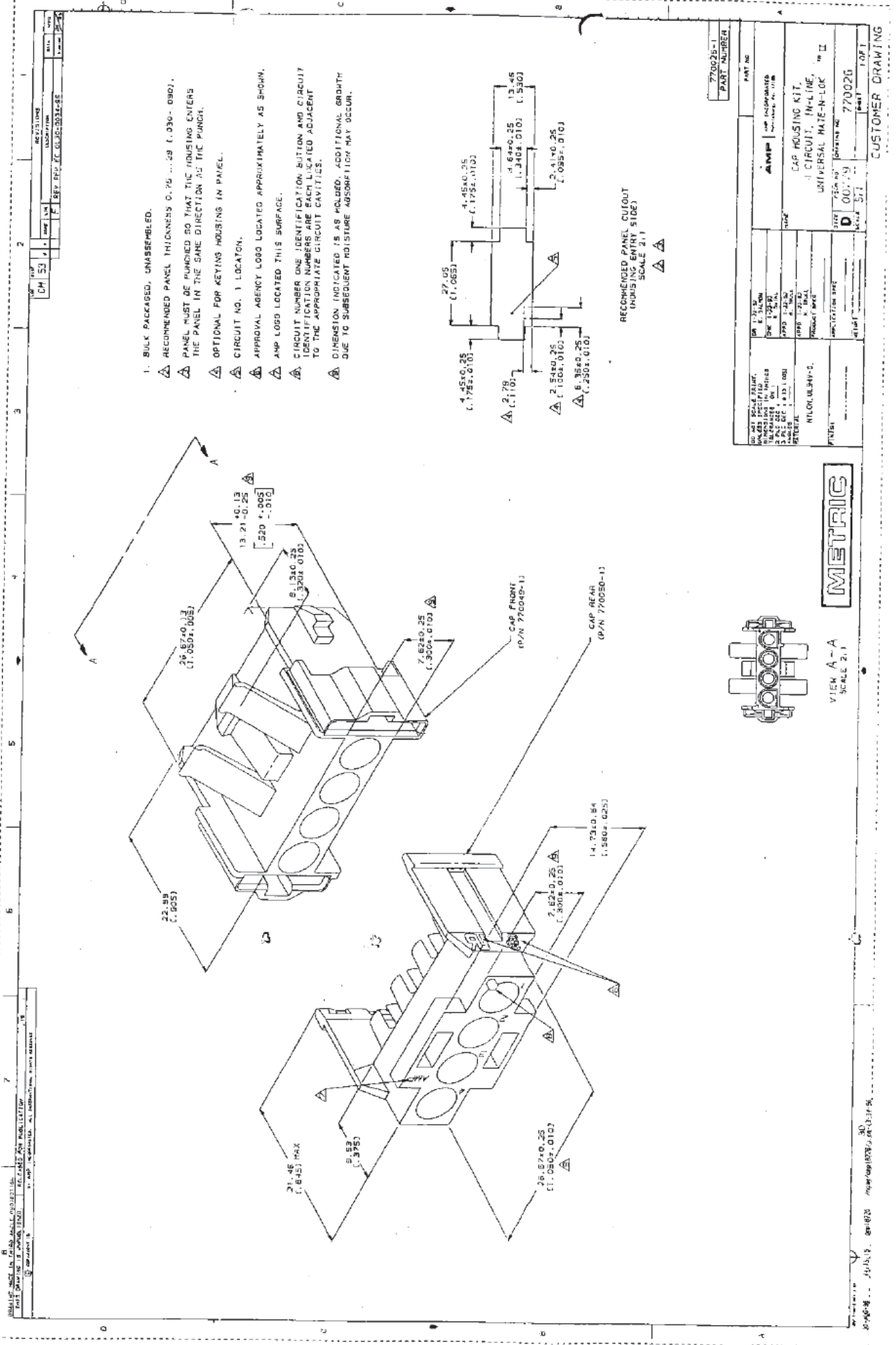


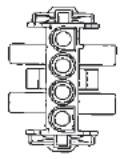
FIG 80
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



1. BULK PACKAGED, UNASSEMBLED.
- △ RECOMMENDED PANEL THICKNESS 0.75 ... 0.9 (1.336 - 0.901).
- △ PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- △ OPTIONAL FOR KEYING HOUSING IN PANEL.
- △ CIRCUIT NO. 1 LOCATION.
- △ APPROVAL AGENCY LOGS LOCATED APPROXIMATELY AS SHOWN.
- △ AMP LOGS LOCATED THIS SURFACE.
- △ CIRCUIT NUMBER ONE IDENTIFICATION BUTTON AND CIRCUIT LOG NUMBERS ARE EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT ENTITIES.
- △ DIMENSION INDICATED IS AS MOLOD. ADDITIONAL GRADUITY DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.

770025-1	PART NUMBER
AMP CORPORATION	PART NAME
CAP HOUSING KIT	TYPE
CIRCUIT IN-LINE	UNIT
UNIVERSAL MAKE-N-LOCK	IN II
77002G	PART NUMBER

METRIC



VIEW A-A
SCALE 2:1

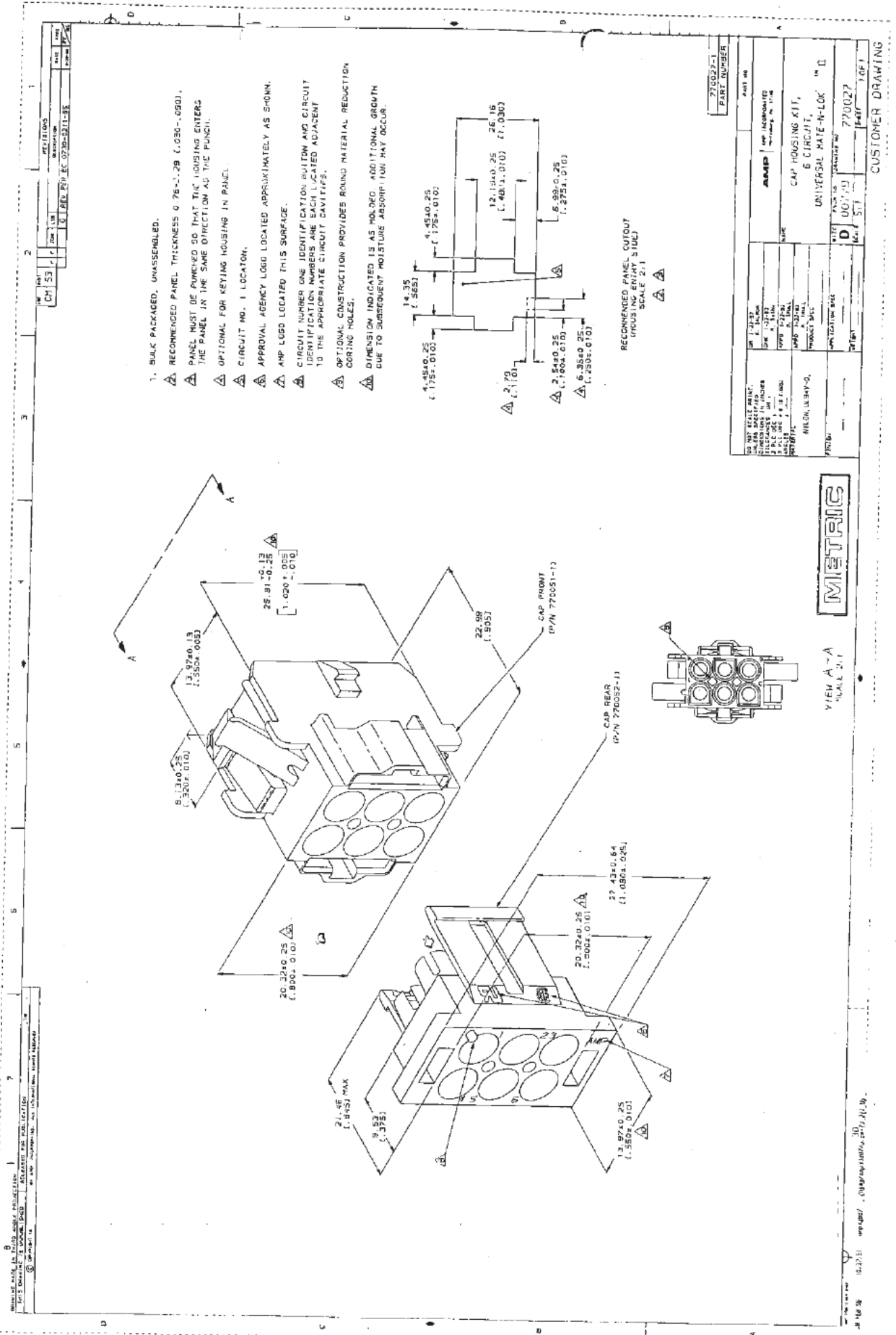


FIG 82
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

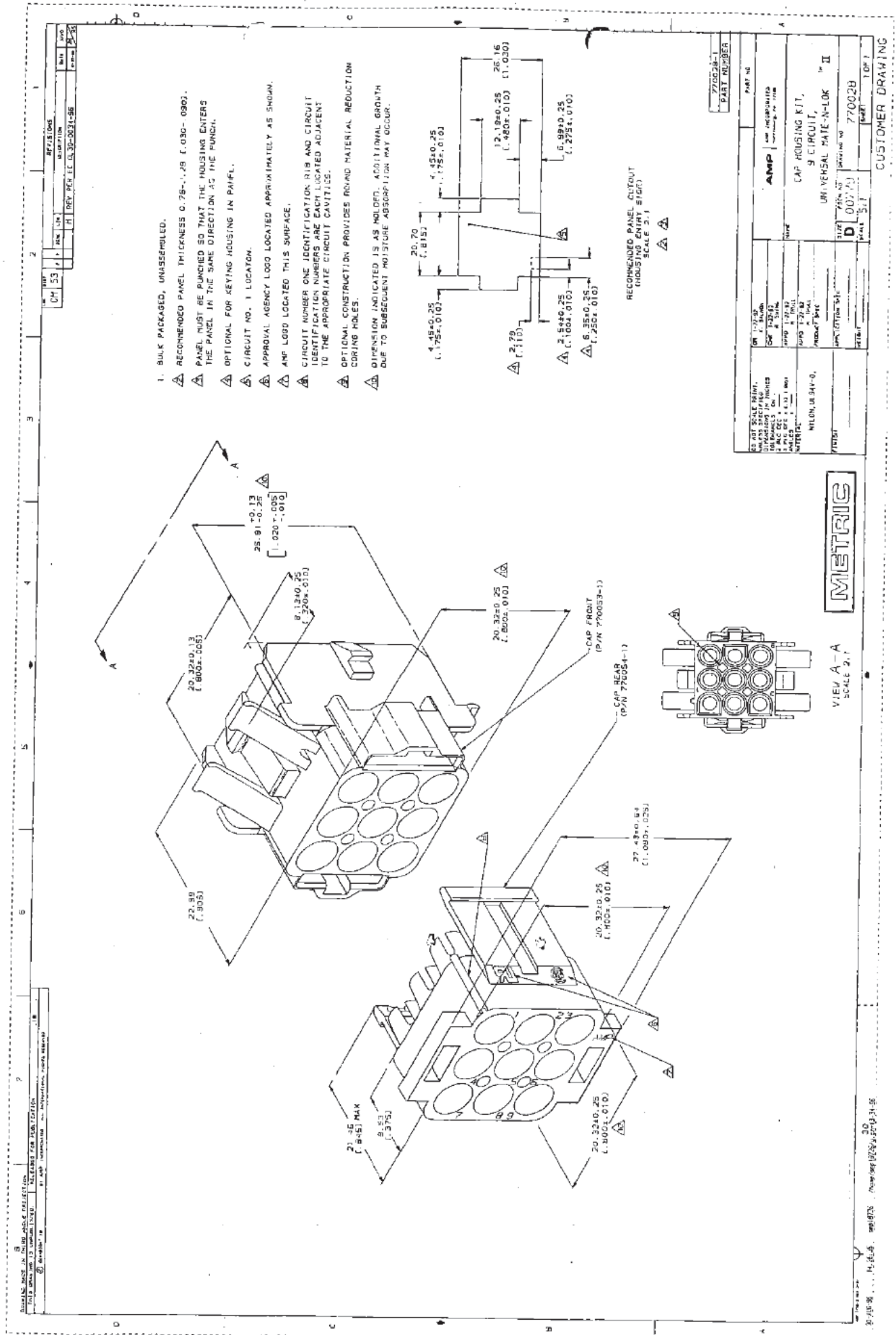


FIG 83
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

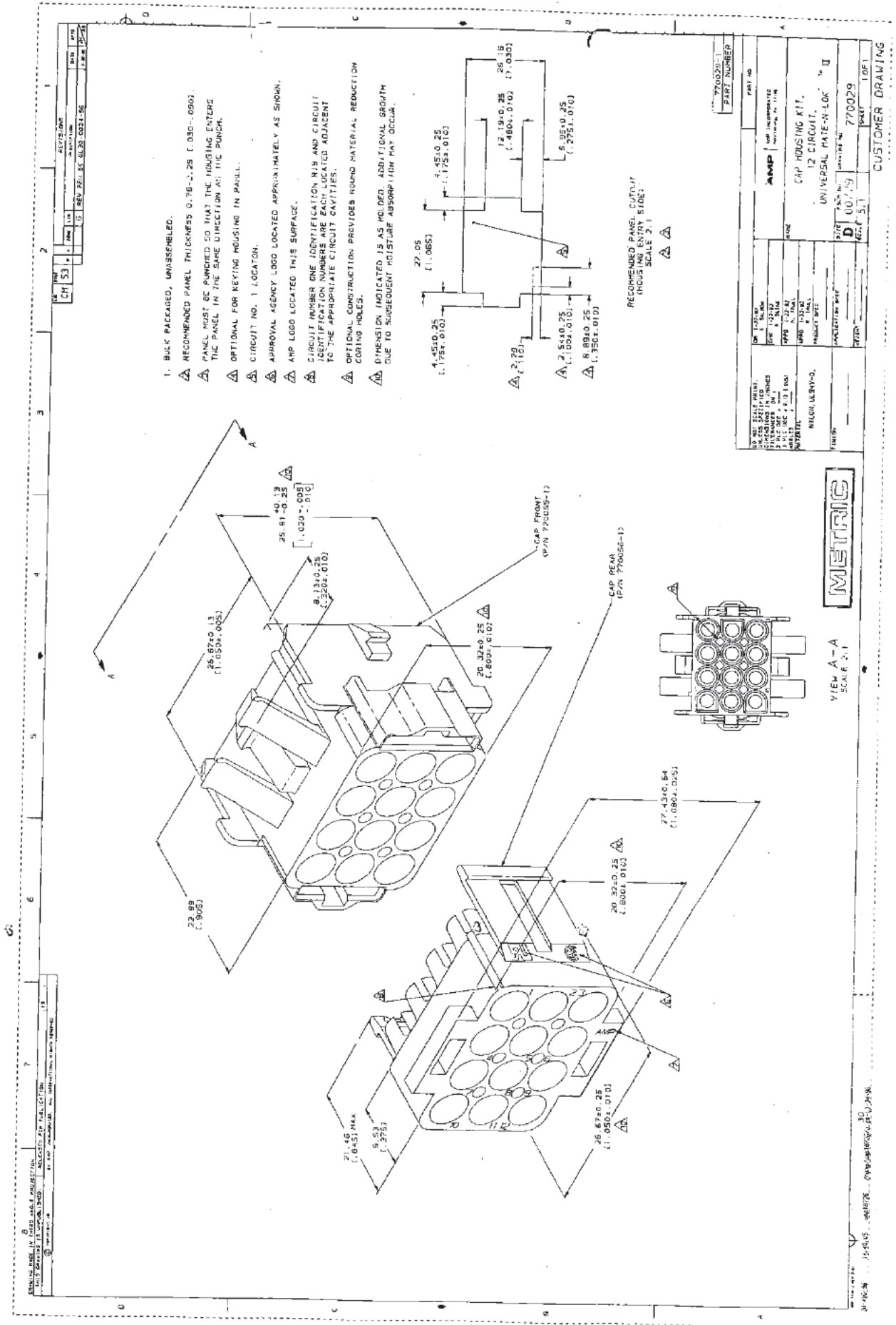


FIG 84
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

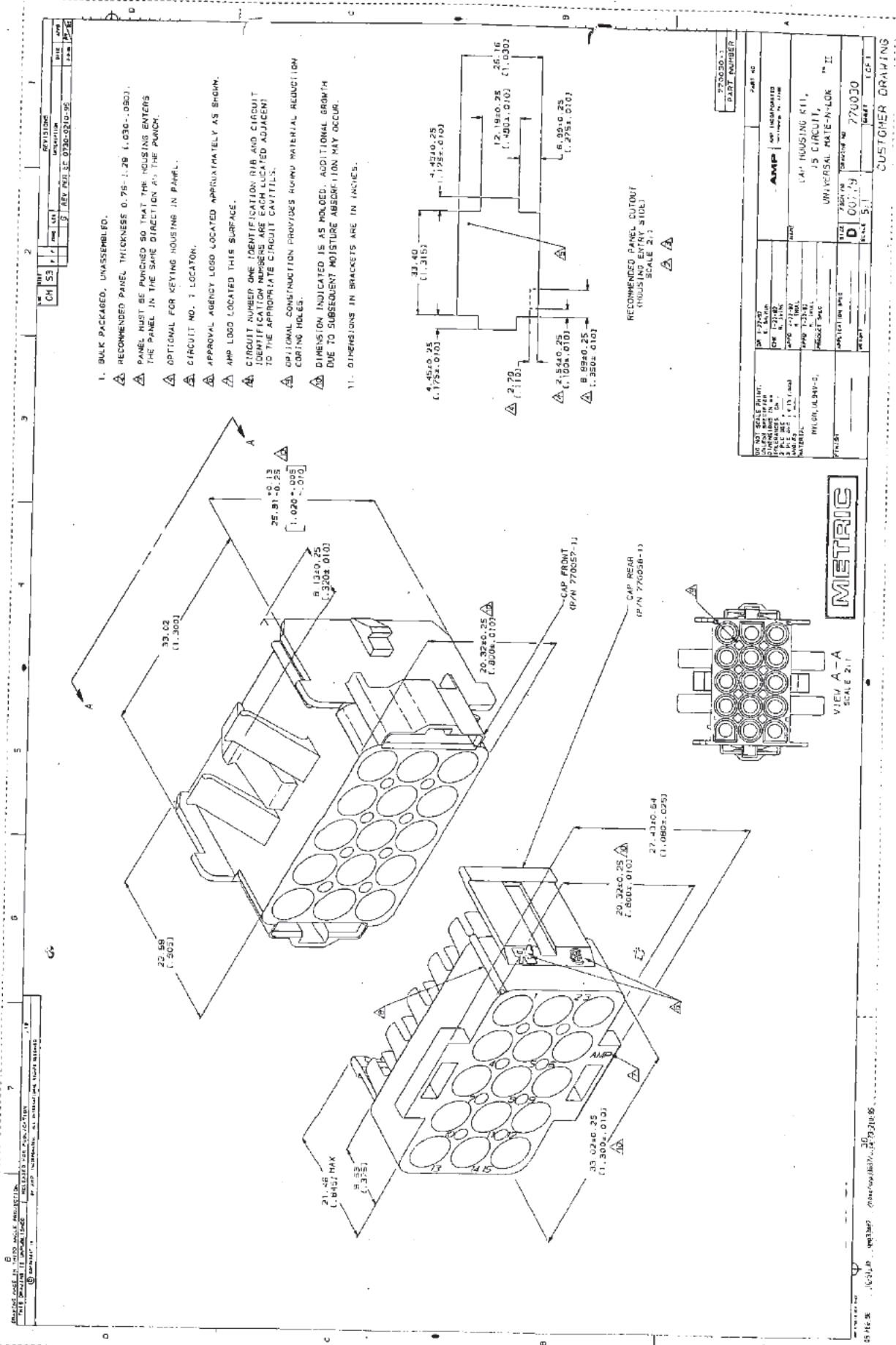
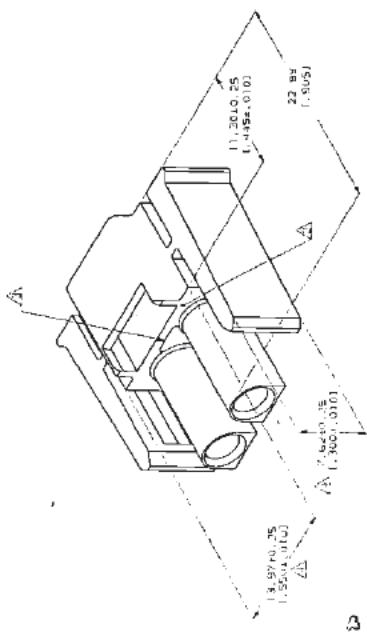


FIG 85
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	CHK	APP
1	11/15/83	...	...	...

- MUST BE ASSEMBLED WITH PLUG BEARING KIT PART IS 7700032-1 BEFORE MATING. KIT PART IS 7700017-1.
- AMP LOGO LOCATED THIS SURFACE.
- NEW MOLD CONSTRUCTION PROVIDES AN INSULAR PROTECTION CURING AT BASE OF SILOS WITH NO FLOWING AND OPTIONAL DIMENSION INDICATED IS AS MOULDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.



PART NUMBER		PART NO	
770031-1		AMP	
MFG. CODE		MFG. CODE	
...		...	
MATERIAL		MATERIAL	
...		...	
FINISH		FINISH	
...		...	
DATE		DATE	
...		...	

METRIC

CUSTOMER DRAWING

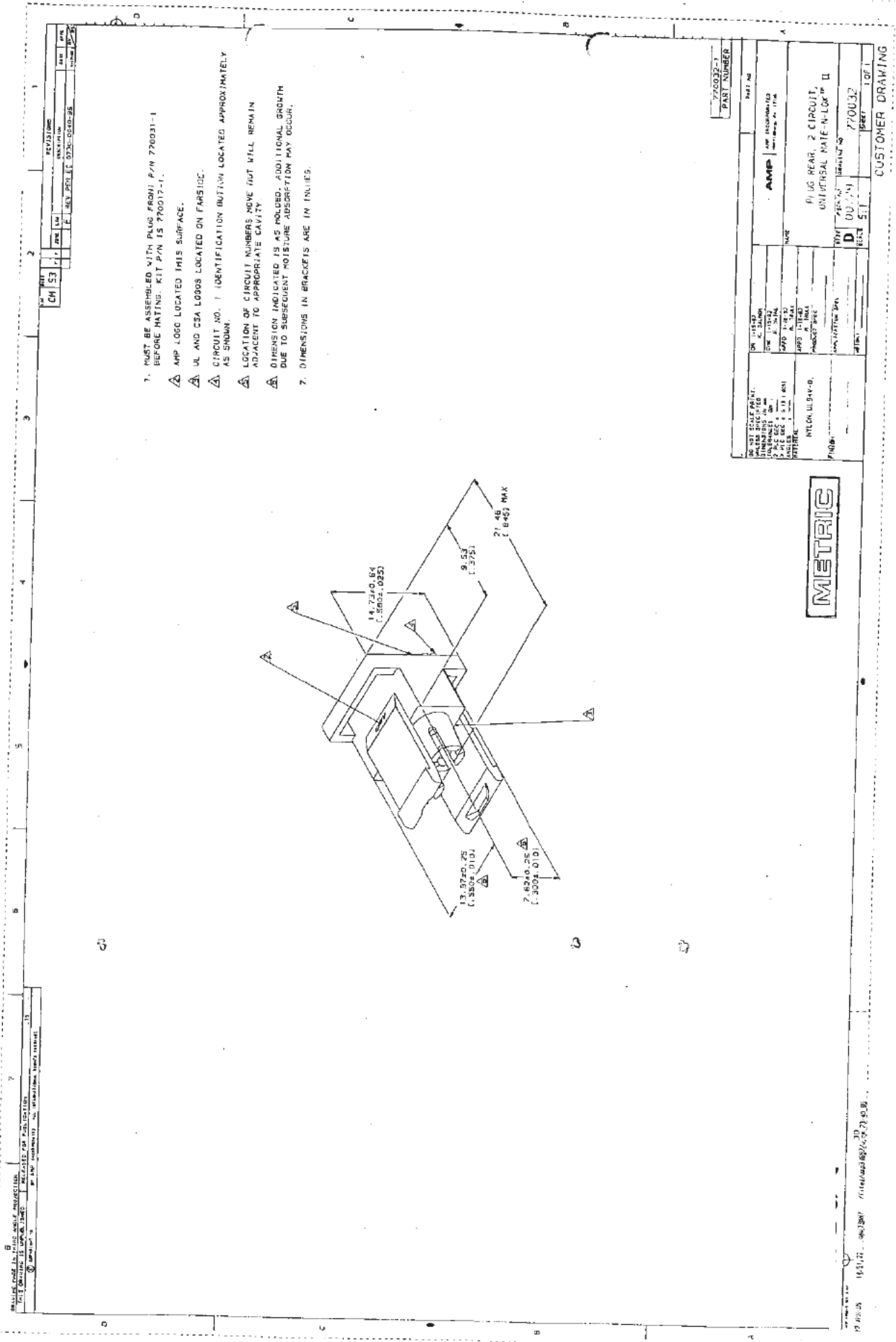
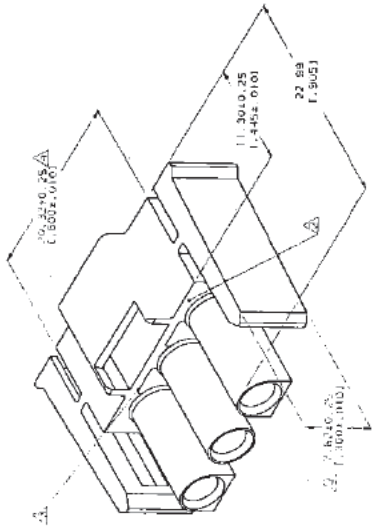


FIG 87
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

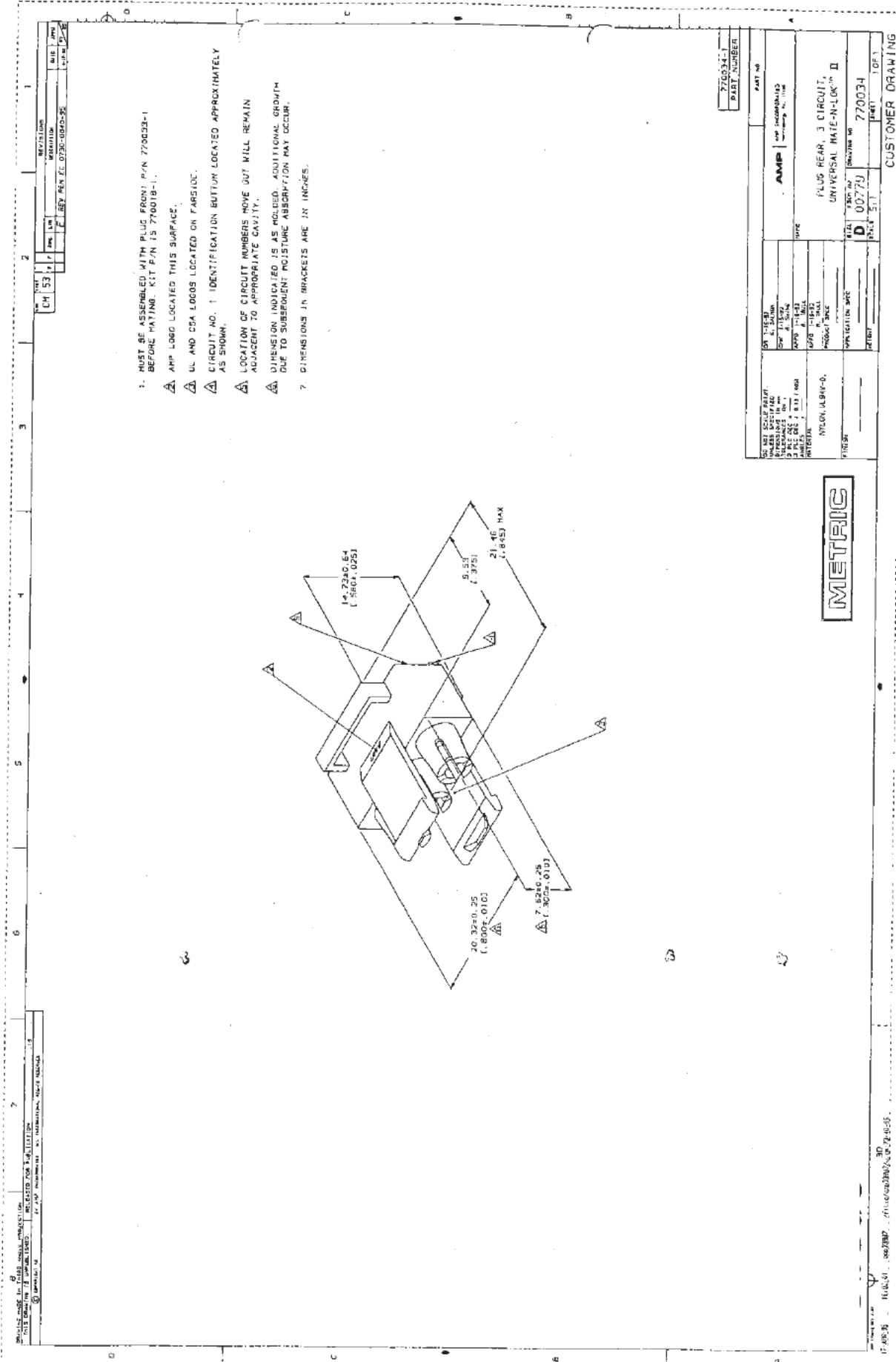
UN 53	REV. 1.0	REV. 1.1	REV. 1.2	REV. 1.3	REV. 1.4	REV. 1.5	REV. 1.6	REV. 1.7	REV. 1.8	REV. 1.9	REV. 2.0
1. MUST BE ASSEMBLED WITH PLUG REAR END 770034-1 BEFORE MATING. KIT P/N IS 770019-1. 2. AMP LOOP LOCATED THIS SURFACE. 3. NEW MOLD CONSTRUCTION PROVIDES INTERNAL REDUCTION CORING AT BASE OF SLIDER WITH NO FINISH AS OPTIONAL. 4. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL LENGTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.											



METRIC

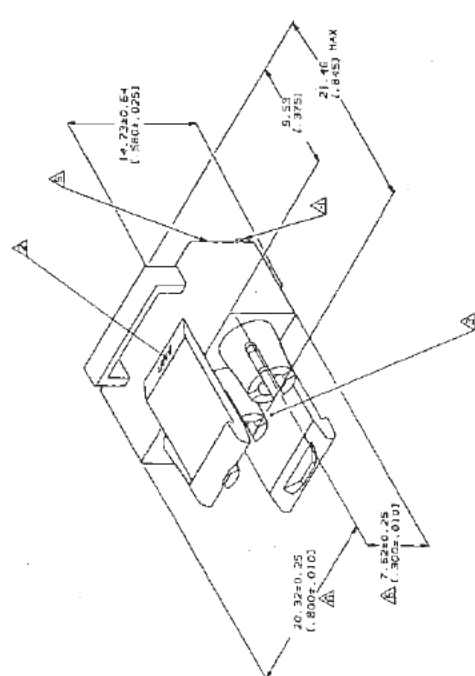
770034-1 PART NUMBER	
PART NAME AMP LOOP	
DIMENSIONS DIM. FRONT: 3.0000 DIMENSIONAL BASE: N US 11 II	
D 0117-1 770034-1	

CUSTOMER DRAWING



REV	DATE	BY	CHK	APP	DESCRIPTION
1	07/20/00	...	...	...	...

1. MUST BE ASSEMBLED WITH PLUG FROM P/N 770033-1 BEFORE MOUNTING. KIT P/N IS 770018-1.
2. AMP LOGO LOCATED THIS SURFACE.
3. UL AND CSA LOGOS LOCATED ON FAR SIDE.
4. CIRCUIT NO. 1 IDENTIFICATION BUTTON LOCATED APPROXIMATELY AS SHOWN.
5. LOCATION OF CIRCUIT NUMBERS ABOVE BUT WILL REMAIN ADJACENT TO APPROPRIATE CAVITY.
6. DIMENSION INDICATED IS AS MOUNTED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
7. DIMENSIONS IN BRACKETS ARE IN INCHES.



770034-1	PART NUMBER
AMP	PART NO.
NYLON AL941-0	MATERIAL
0077U	REV
770034	REV

METRIC

CUSTOMER DRAWING

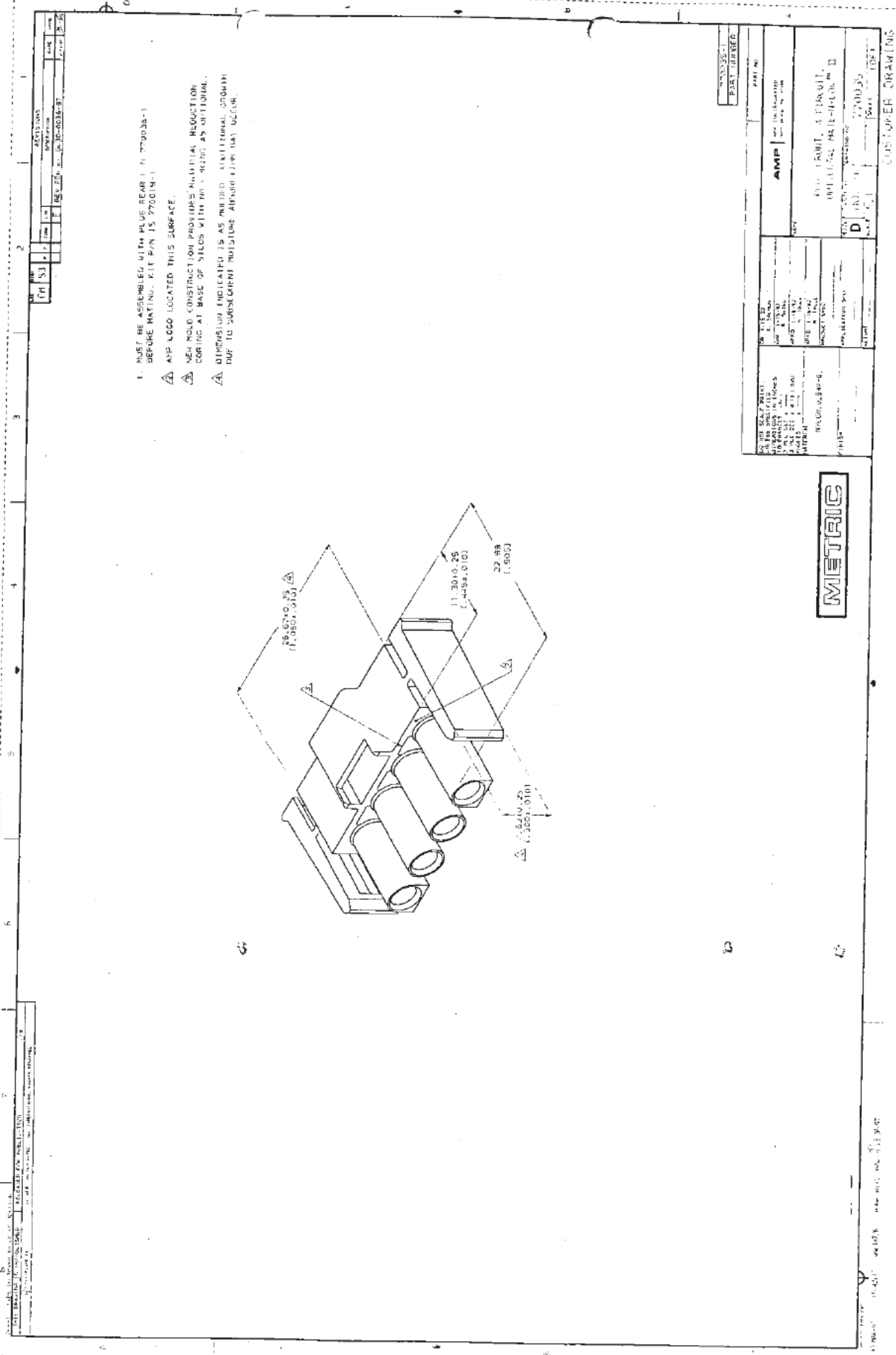


FIG 90
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

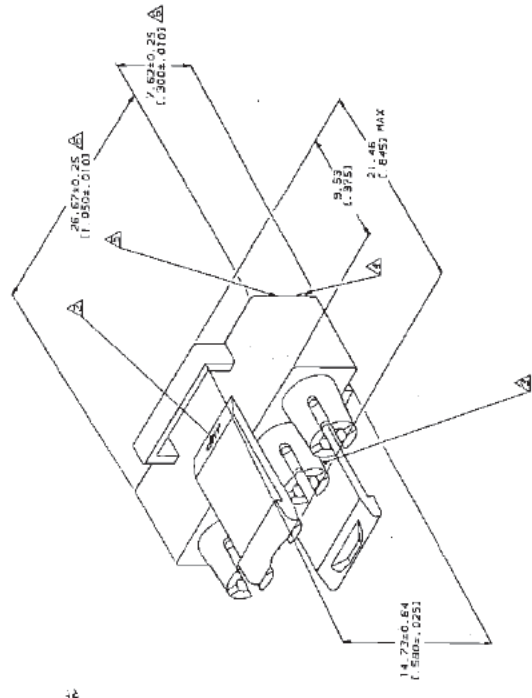
CH 59	REV	DATE	BY	APP
	E	REV 2511C 0720-04E-02		

DESCRIPTION	LOCATION

DATE	BY	APP

DATE	BY	APP

1. MUST BE ASSEMBLED WITH PLUG FRONT P/N 770035-1 BEFORE MATING. K.II P/N IS 770019-1.
- △ AMP LOGS LOCATED THIS SURFACE.
- △ UL AND CSA LOGS LOCATED ON PARS/OC.
- △ CIRCUIT NO. 1 IDENTIFICATION BUTHN LOCATED APPROXIMATELY AS SHOWN.
- △ LOCATION OF CIRCUIT NUMBERS MOVE BUT WILL REMAIN ADJACENT TO APPROPRIATE CAVITY.
- △ DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
7. DIMENSIONS IN BRACKETS ARE IN INCHES.



770035-1	PART NUMBER
770035-1	PART NO.
AMP	AMP
PLUG REAR, 4 CIRCUIT, UNIVERSAL RATE-N-LOCK II	
DATE: 0017/4	REV: 0017/4
770035-1	770035-1
	TOP 1



CUSTOMER DRAWING

17 611 55 11-20-01 0002007 11100000397-00074 01 5

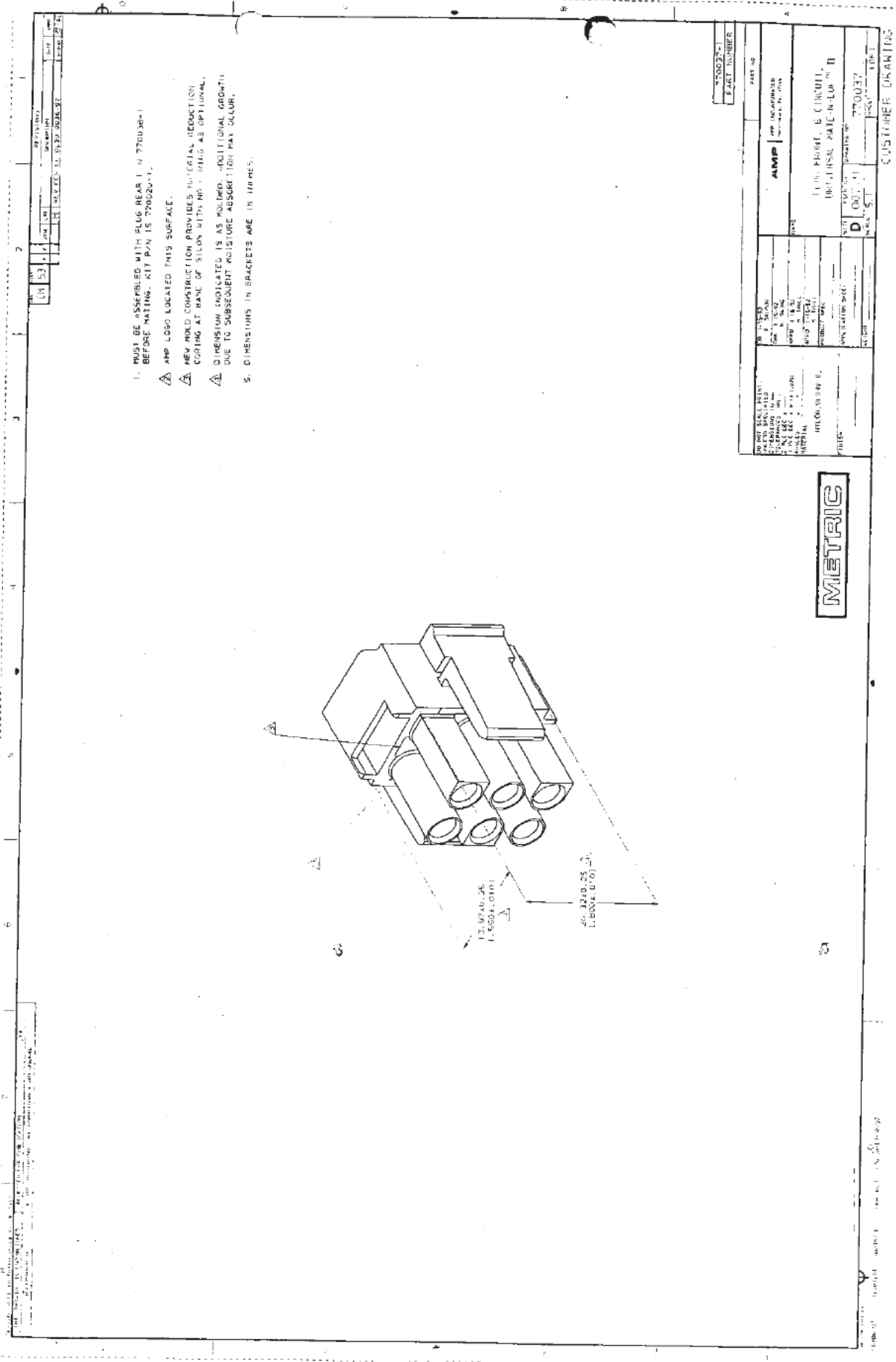
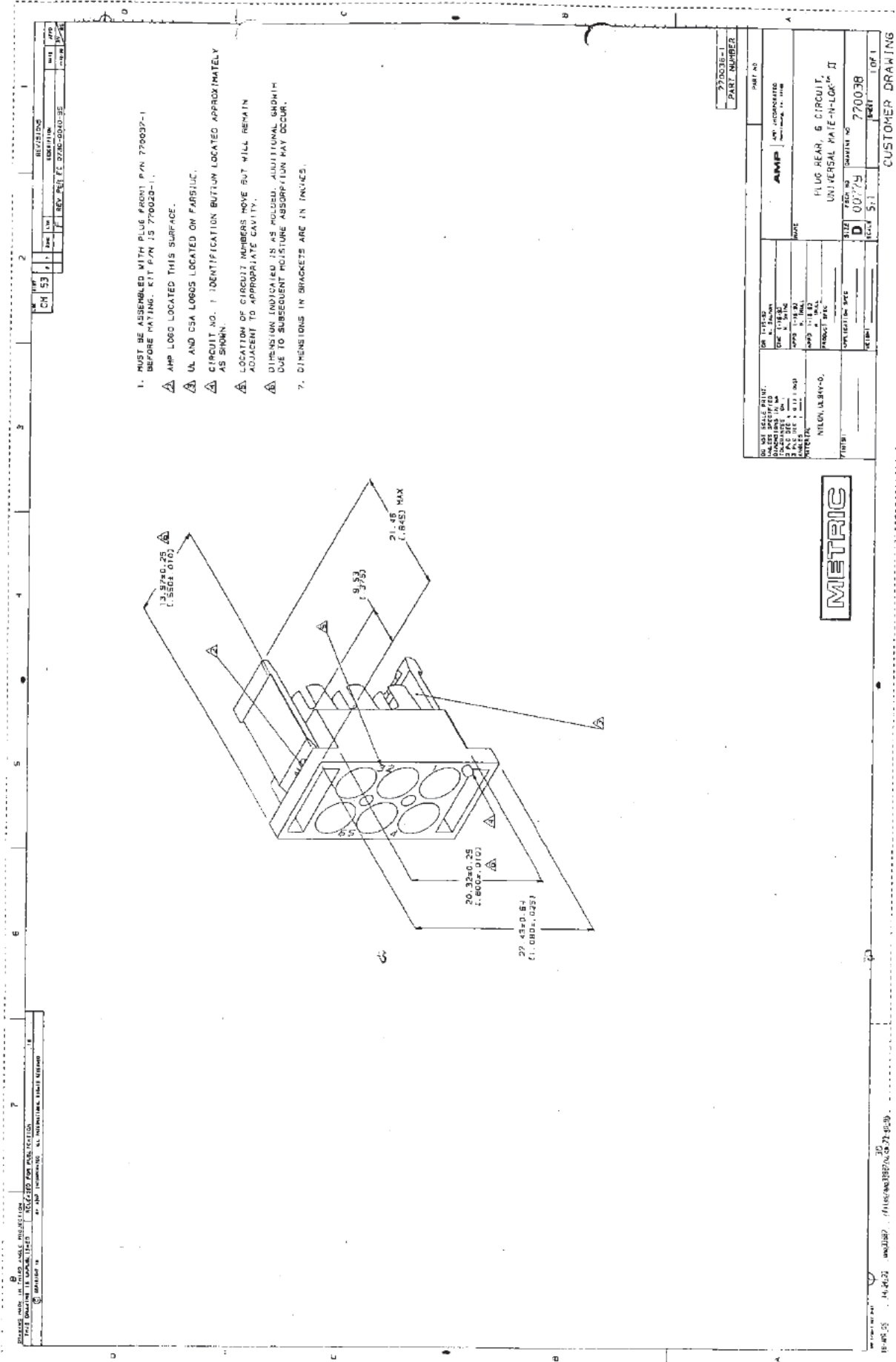


FIG 92
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



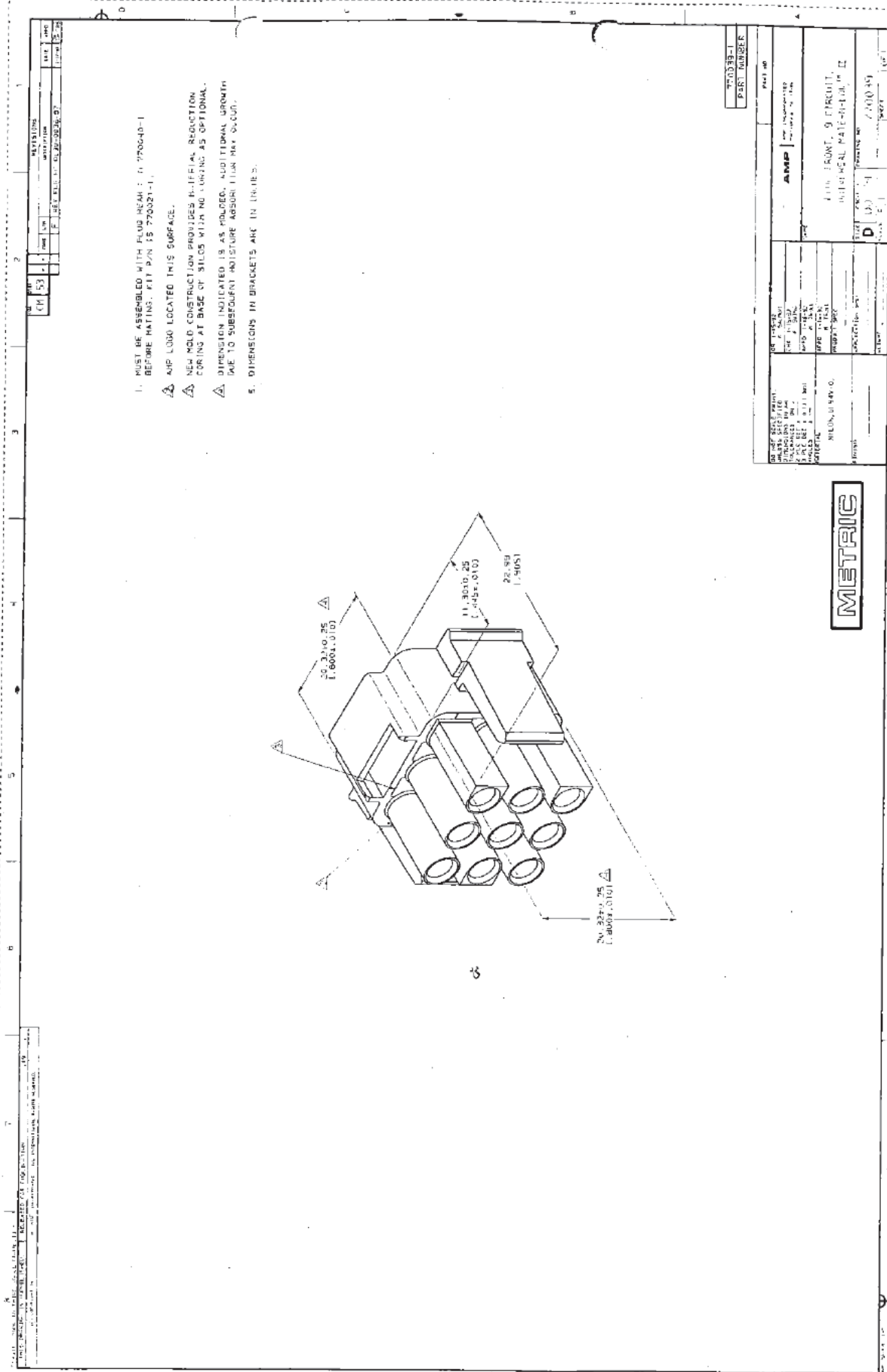
- 1. MUST BE ASSEMBLED WITH PLUG REAR, P/N 770037-1 BEFORE MOUNTING KIT FOR 770039-1.
- △ AMP LOGO LOCATED THIS SURFACE.
- △ UL AND CSA LOGOS LOCATED ON REVERSE.
- △ CIRCUIT NO. 1 IDENTIFICATION BUTTON LOCATED APPROXIMATELY AS SHOWN.
- △ LOCATION OF CIRCUIT NUMBERS MOVE BUT WILL REMAIN ADJACENT TO APPROPRIATE CAVITY.
- △ DIMENSION INDICATED IS AS POLISHED. ADDITIONAL GROWTH DUE TO SUBSEQUENT HUMIDITY ABSORPTION MAY OCCUR.
- 7. DIMENSIONS IN BRACKETS ARE IN INCHES.

REV. NO.	1	REV. DATE	07-85-0000-95
CH	53	REV. NO.	1
RELATIONS			
DESCRIPTION	DATE	BY	APP.
770039-1			
PART NUMBER			
DR. NOT SCALE PRINT.		PART NO.	
UNLESS OTHERWISE SPECIFIED		AMP	
DIMENSIONS IN INCH		NOT INDICATED	
TOLERANCES UNLESS OTHERWISE SPECIFIED		SEE DRAWING	
FRACTIONS		DECIMALS	
3/16 ± .003		.015 ± .001	
3/32 ± .003		.020 ± .001	
1/8 ± .003		.030 ± .001	
1/4 ± .003		.060 ± .001	
3/8 ± .003		.120 ± .001	
1/2 ± .003		.250 ± .001	
3/4 ± .003		.500 ± .001	
1 ± .003		1.000 ± .001	
2 ± .003		2.000 ± .001	
5 ± .003		5.000 ± .001	
10 ± .003		10.000 ± .001	
20 ± .003		20.000 ± .001	
50 ± .003		50.000 ± .001	
100 ± .003		100.000 ± .001	
MATERIAL		FINISH	
NICKEL PLATE-0.0005"		770038	
OPERATION SPEC		REV. 5.1	
DATE		LOT 1	
DRAWN BY		CHECKED BY	
DATE		DATE	



CUSTOMER DRAWING

18-495-55 14-8022 0000087 01000008705079 0500



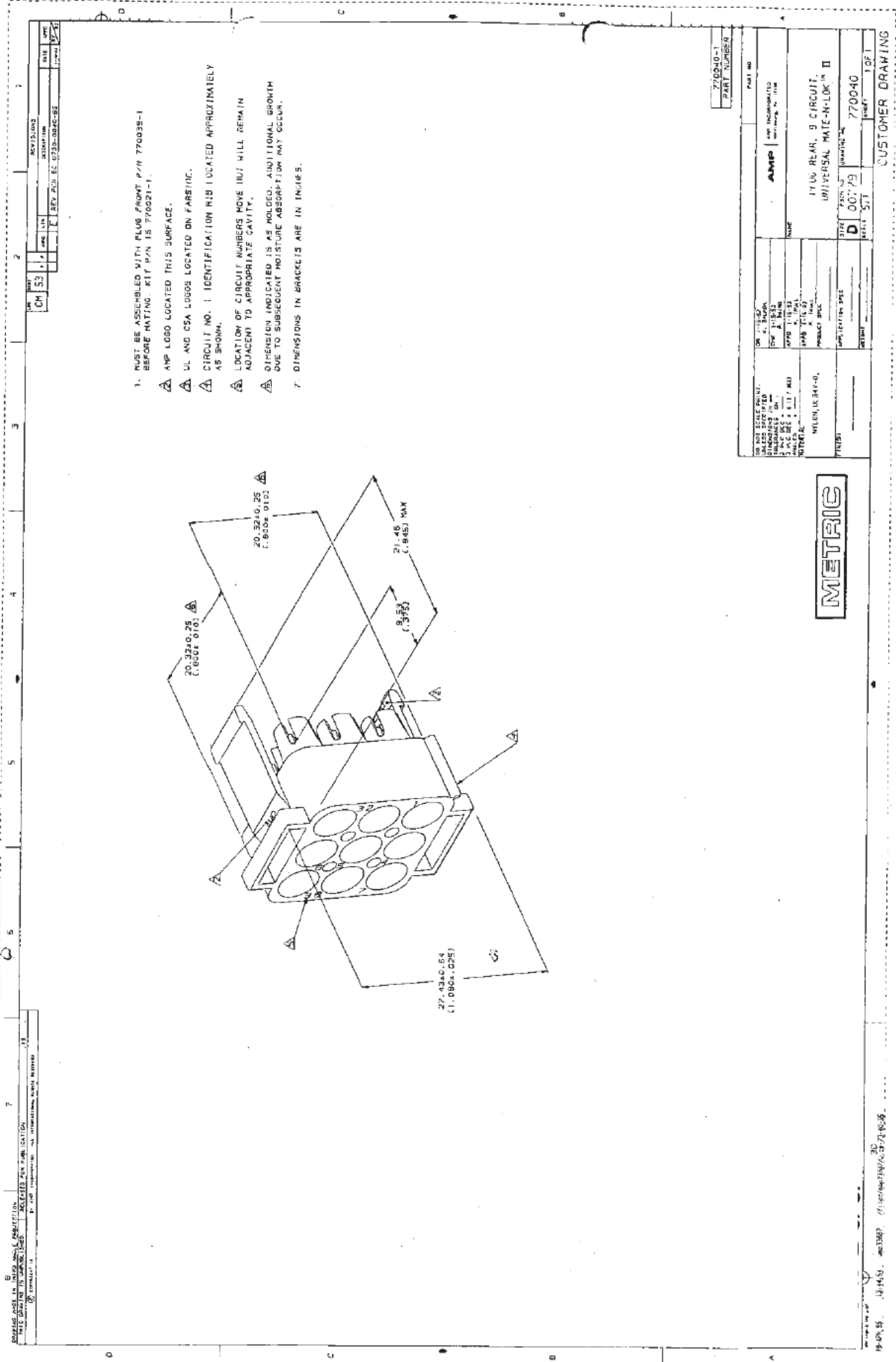
1. MUST BE ASSEMBLED WITH FLUID HEAD : N 7700610-1 BEFORE MATING. KIT P/N IS 770021-1.
2. KIP LOAD LOCATED THIS SURFACE.
3. NEW MOLD CONSTRUCTION PROVIDES MATERIAL REDUCTION CORING AT BASE OF STILCS WITH NO CORING AS OPTIONAL.
4. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
5. DIMENSIONS IN BRACKETS ARE IN INCHES.

METRIC

770039-1		PART NUMBER	
PART NO.		AMP	
REV. 1		REV. 1	
DATE 10/15/89		DATE 10/15/89	
BY J. W. H. / J. W. H.		BY J. W. H. / J. W. H.	
CHECKED BY J. W. H. / J. W. H.		CHECKED BY J. W. H. / J. W. H.	
APPROVED BY J. W. H. / J. W. H.		APPROVED BY J. W. H. / J. W. H.	
MIL. D. 8830		MIL. D. 8830	
CONSTRUCTION METHOD		CONSTRUCTION METHOD	
MATERIAL		MATERIAL	
FINISH		FINISH	
TOLERANCES UNLESS OTHERWISE SPECIFIED		TOLERANCES UNLESS OTHERWISE SPECIFIED	
D 100		D 100	
770039		770039	
103093		103093	
770039-1		770039-1	
770039-1		770039-1	

770039

103093



1. MUST BE ASSEMBLED WITH PLUS FRONT P/N 770025-1 BEFORE MATING. KIT P/N IS 770021-1.
- ▲ AMP LOGO LOCATED THIS SURFACE.
- ▲ UL AND CSA LOGOS LOCATED ON FACING.
- ▲ CIRCUIT NO. 1 IDENTIFICATION RIB LOCATED APPROXIMATELY AS SHOWN.
- ▲ LOCATION OF CIRCUIT NUMBERS ONE INCH WILL REMAIN ADJACENT TO APPROPRIATE CAVITY.
- ▲ DIMENSION INDICATED IS AS MOULDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
7. DIMENSIONS IN BRACKETS ARE IN INCHES.

REV	DATE	BY	CHKD	DESCRIPTION
CH	53			REVISIONS
				REVISIONS
				REVISIONS

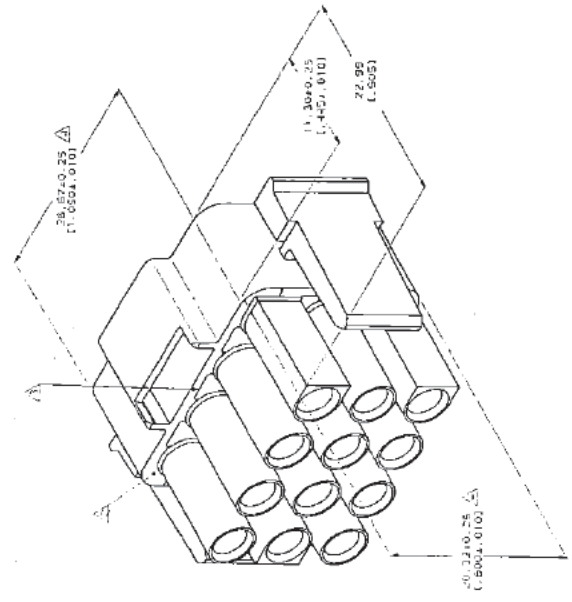
770040-1 PART NUMBER		PART NO	
DATE	REV	DATE	REV
01-15-82	1	01-15-82	1
20-11-82	2	01-15-82	1
01-15-82	3	01-15-82	1
01-15-82	4	01-15-82	1
01-15-82	5	01-15-82	1
01-15-82	6	01-15-82	1
01-15-82	7	01-15-82	1
01-15-82	8	01-15-82	1
01-15-82	9	01-15-82	1
01-15-82	10	01-15-82	1
01-15-82	11	01-15-82	1
01-15-82	12	01-15-82	1
01-15-82	13	01-15-82	1
01-15-82	14	01-15-82	1
01-15-82	15	01-15-82	1
01-15-82	16	01-15-82	1
01-15-82	17	01-15-82	1
01-15-82	18	01-15-82	1
01-15-82	19	01-15-82	1
01-15-82	20	01-15-82	1
01-15-82	21	01-15-82	1
01-15-82	22	01-15-82	1
01-15-82	23	01-15-82	1
01-15-82	24	01-15-82	1
01-15-82	25	01-15-82	1
01-15-82	26	01-15-82	1
01-15-82	27	01-15-82	1
01-15-82	28	01-15-82	1
01-15-82	29	01-15-82	1
01-15-82	30	01-15-82	1
01-15-82	31	01-15-82	1
01-15-82	32	01-15-82	1
01-15-82	33	01-15-82	1
01-15-82	34	01-15-82	1
01-15-82	35	01-15-82	1
01-15-82	36	01-15-82	1
01-15-82	37	01-15-82	1
01-15-82	38	01-15-82	1
01-15-82	39	01-15-82	1
01-15-82	40	01-15-82	1
01-15-82	41	01-15-82	1
01-15-82	42	01-15-82	1
01-15-82	43	01-15-82	1
01-15-82	44	01-15-82	1
01-15-82	45	01-15-82	1
01-15-82	46	01-15-82	1
01-15-82	47	01-15-82	1
01-15-82	48	01-15-82	1
01-15-82	49	01-15-82	1
01-15-82	50	01-15-82	1
01-15-82	51	01-15-82	1
01-15-82	52	01-15-82	1
01-15-82	53	01-15-82	1
01-15-82	54	01-15-82	1
01-15-82	55	01-15-82	1
01-15-82	56	01-15-82	1
01-15-82	57	01-15-82	1
01-15-82	58	01-15-82	1
01-15-82	59	01-15-82	1
01-15-82	60	01-15-82	1
01-15-82	61	01-15-82	1
01-15-82	62	01-15-82	1
01-15-82	63	01-15-82	1
01-15-82	64	01-15-82	1
01-15-82	65	01-15-82	1
01-15-82	66	01-15-82	1
01-15-82	67	01-15-82	1
01-15-82	68	01-15-82	1
01-15-82	69	01-15-82	1
01-15-82	70	01-15-82	1
01-15-82	71	01-15-82	1
01-15-82	72	01-15-82	1
01-15-82	73	01-15-82	1
01-15-82	74	01-15-82	1
01-15-82	75	01-15-82	1
01-15-82	76	01-15-82	1
01-15-82	77	01-15-82	1
01-15-82	78	01-15-82	1
01-15-82	79	01-15-82	1
01-15-82	80	01-15-82	1
01-15-82	81	01-15-82	1
01-15-82	82	01-15-82	1
01-15-82	83	01-15-82	1
01-15-82	84	01-15-82	1
01-15-82	85	01-15-82	1
01-15-82	86	01-15-82	1
01-15-82	87	01-15-82	1
01-15-82	88	01-15-82	1
01-15-82	89	01-15-82	1
01-15-82	90	01-15-82	1
01-15-82	91	01-15-82	1
01-15-82	92	01-15-82	1
01-15-82	93	01-15-82	1
01-15-82	94	01-15-82	1
01-15-82	95	01-15-82	1
01-15-82	96	01-15-82	1
01-15-82	97	01-15-82	1
01-15-82	98	01-15-82	1
01-15-82	99	01-15-82	1
01-15-82	100	01-15-82	1

METRIC

CUSTOMER DRAWING

REV	DATE	BY	APP	DESCRIPTION
01	152			REVISED TO 30-0228-97

1. MUST BE ASSEMBLED WITH PLUG NEAR THE 770042-1 BEFORE MATING. KIT P/N IS 770022-1.
2. AMP LOGS LOCATED THIS SURFACE.
3. HIGH HOLD CONSTRUCTION PROVIDES MAXIMAL REDUCTION CORING AT BASE OF SILOS WITH NO WORKING AS OPTIMAL.
4. DIMENSION INDICATOR IS AS SHOWN. ADDITIONAL GAUGING DUE TO SUBSEQUENT HOLDING ABOVE TOLERANCE OCCUR.
5. DIMENSIONS IN BRACKETS ARE IN INCHES.



770042-1 PART NUMBER		REV. 01	
DATE		REV. 01	
DRAWN BY		CHECKED BY	
DESIGNED BY		APPROVED BY	
PROJECT NO.		PART NO.	
MATERIAL		QUANTITY	
MANUFACTURER		COUNTRY OF ORIGIN	
DRAWN BY		CHECKED BY	
DESIGNED BY		APPROVED BY	
PROJECT NO.		PART NO.	
MATERIAL		QUANTITY	
MANUFACTURER		COUNTRY OF ORIGIN	

METRIC

CUSTOMER DRAWING
77004

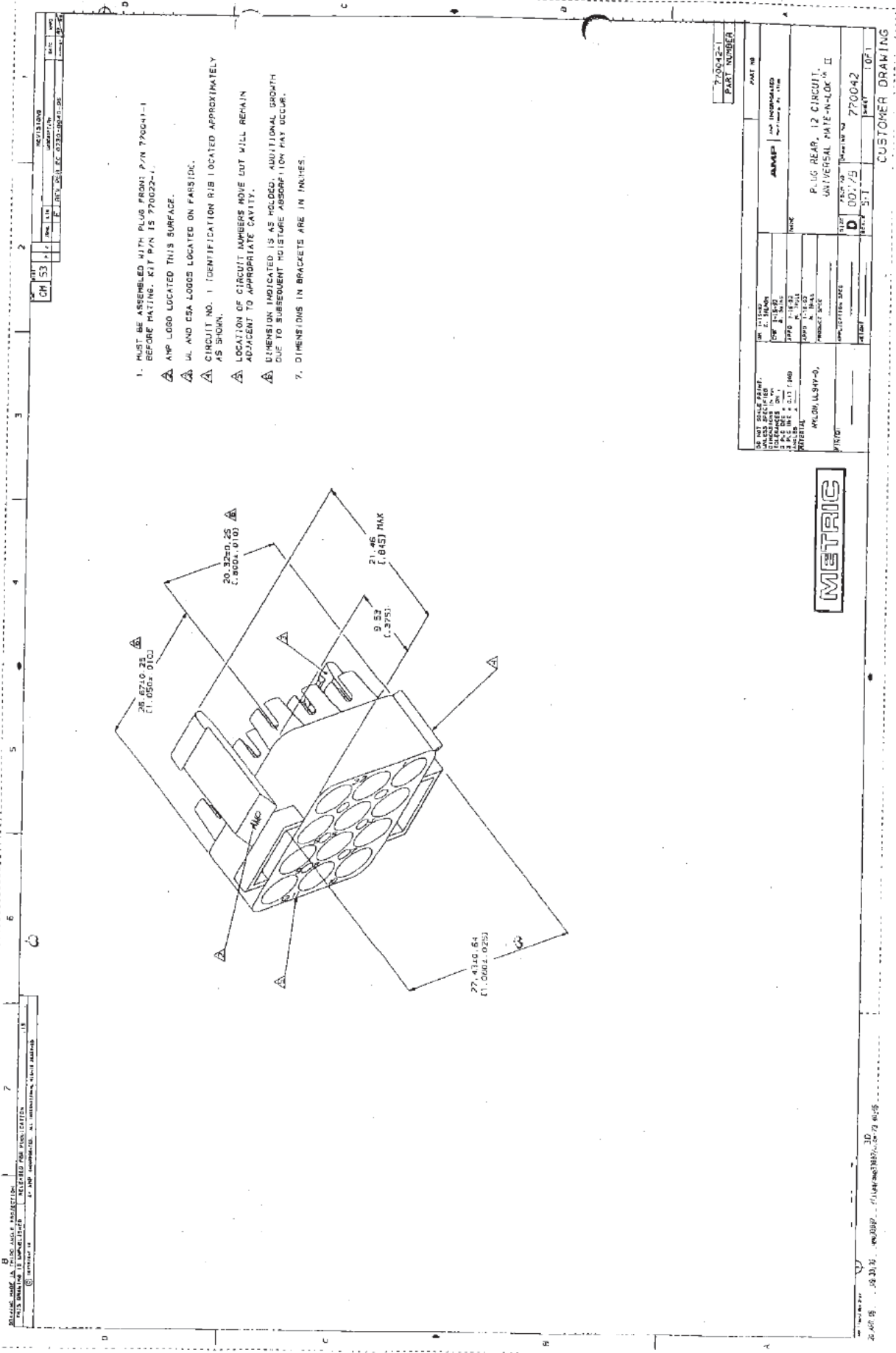
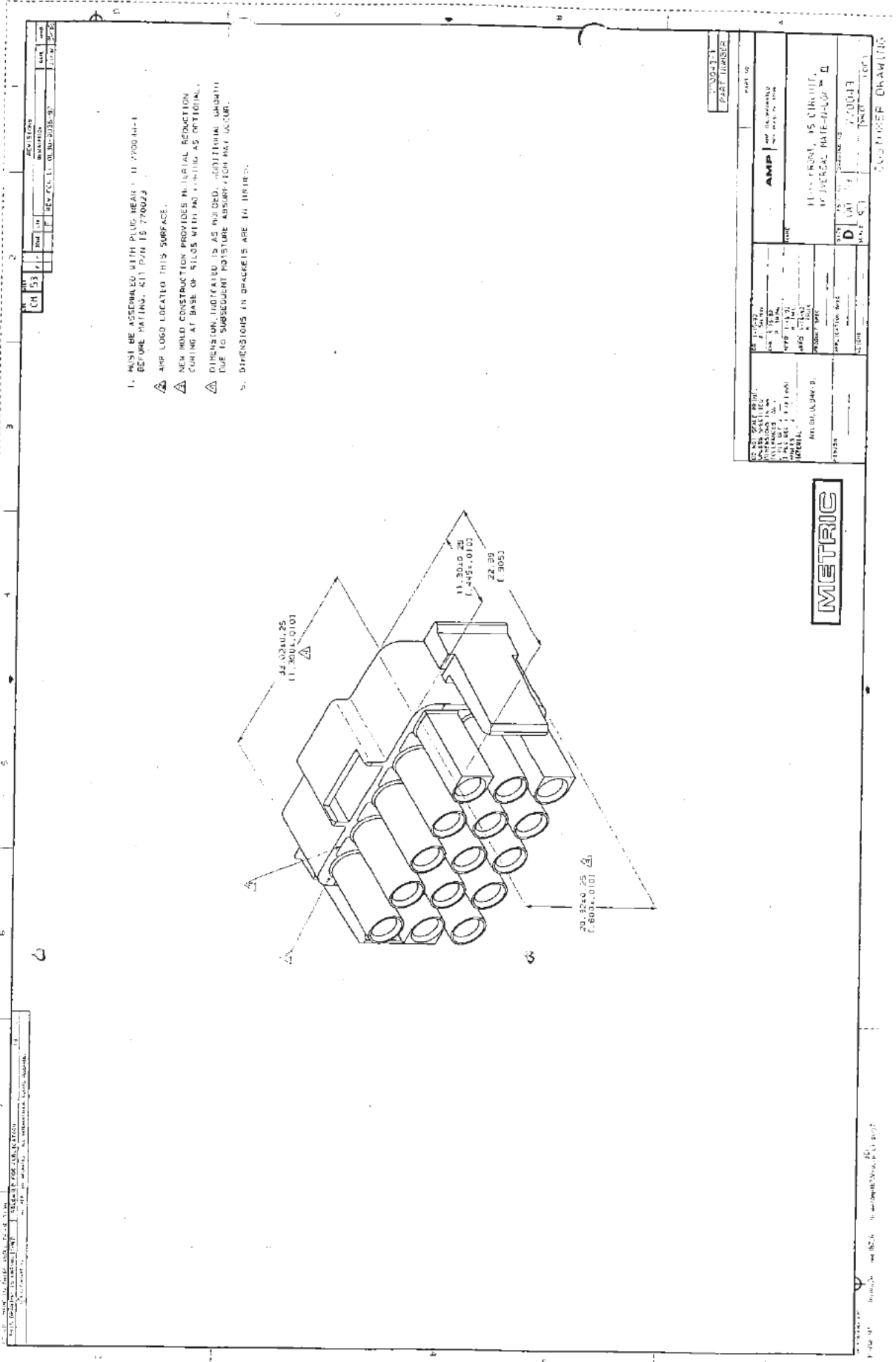


FIG 97
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



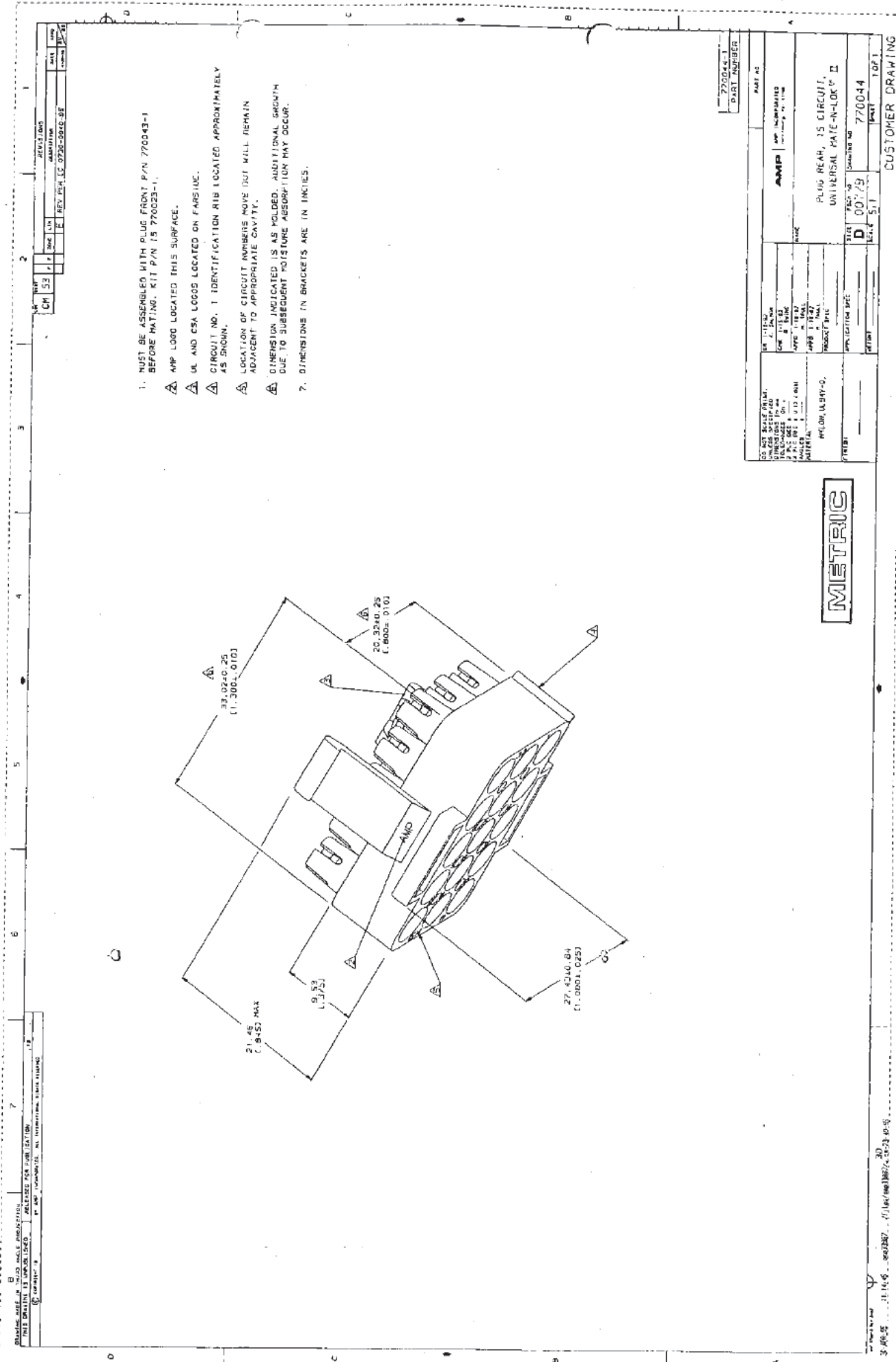
REVISIONS	
NO.	DATE
1	11/21/82
2	11/21/82
3	11/21/82
4	11/21/82
5	11/21/82
6	11/21/82
7	11/21/82

REV. NO.	DATE	DESCRIPTION
1	11/21/82	INITIAL DESIGN
2	11/21/82	REVISED TO ADD DIMENSIONS

- MUST BE ASSEMBLED WITH PLUG NEAR H IN 700044-1 BEFORE MATING. C/T D/H IS 770022.
- AMP LOGO LOCATED THIS SURFACE.
- NEW MOLD CONSTRUCTION PROVIDES INITIAL REDUCTION CURING AT BASE OF SILCS WITH NO AIRING AS OPTIONAL.
- DIMENSIONS INDICATED IS AS POLISHED. ADDITIONAL GRADUITY DUE TO SUBSEQUENT POSTURE ASSURE-TECH MAY OCCUR.
- DIMENSIONS IN BRACKETS ARE IN INCHES.

10247-1 PART NUMBER		PART 02	
AMP			
MOTOR HOUSING IS CIRCUIT 10247-1 PART 02			
DATE	REV.	BY	CHKD.
11/21/82	1	JRM	JRM
11/21/82	2	JRM	JRM
MATERIAL		MATERIAL	
POLYMER		POLYMER	
MELT 000000		MELT 000000	
MATERIAL			
MATERIAL			

FIG 98
Project 7007062
Report 1030930
Contract 164196
LR 7189-549



1. MUST BE ASSEMBLED WITH PLUG FRONT P/N 770043-1 BEFORE MATING. KIT P/N IS 770023-1.
2. AMP LOGS LOCATED THIS SURFACE.
3. UL AND CSA LOGS LOCATED ON FAN SIDE.
4. CIRCUIT NO. 1 IDENTIFICATION RIB LOCATED APPROXIMATELY AS SHOWN.
5. LOCATION OF CIRCUIT NUMBERS NONE BUT WILL REMAIN ADJACENT TO APPROPRIATE CAVITY.
6. DIMENSION INDICATED IS AS FOLLOWS. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
7. DIMENSIONS IN BRACKETS ARE IN INCHES.

REV. 1.00		DATE	APP'D
CH 33	10/23/95		
NEW P/N 15 0720-0810-02			

THIS DRAWING IS UNCONTROLLED UNLESS SPECIFICALLY NOTED OTHERWISE. FOR THE LATEST REVISION, SEE THE DRAWING TITLE BLOCK.

770044-1 PART NUMBER		PART AS	
MATERIAL		MATERIAL	
MILWAUKEE		MILWAUKEE	
DATE	BY	DATE	BY
00/79			
SIZE	DRAWING NO.	770044	
5:1	PART	TOP	

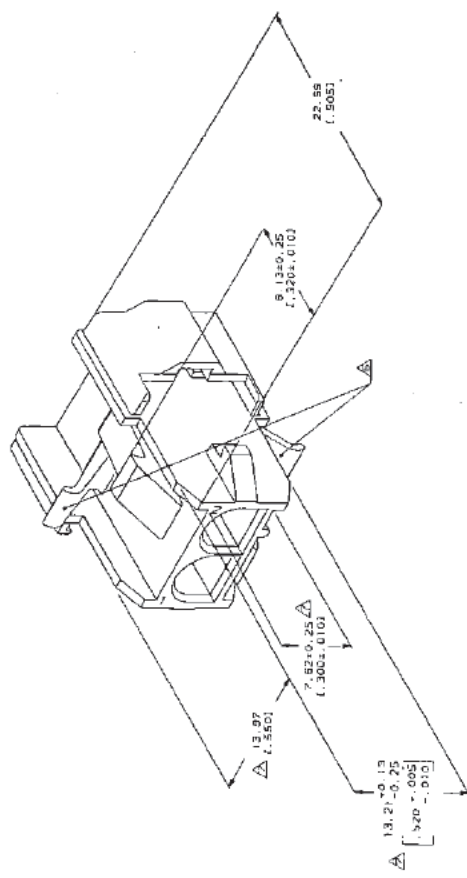
METRIC

CUSTOMER DRAWING

3. APR 95 11:46 000002 / 141660385/2.003-05

REVISED	DATE	BY	APP
CH 53	10/11	10/11	10/11
DESCRIPTION			
P. 1002 P. 1002 L. 1002			

1. MUST BE ASSEMBLED WITH CAP REAR P/N 770046-1 BEFORE MATING. KIT P/N IS 770024-1.
- △ RECOMMENDED PANEL THICKNESS 0.76-3.29 I.030- 080J.
- △ PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- △ OPTIONAL FOR KEYING HOUSING IN PANEL.
- △ CIRCUIT NUMBER 1 LOCATION.
- △ AMP LOCK LOCATED ON ANY INDICATED SURFACE FASIDE.
- △ DIMENSION INDICATED IS AS MOUNTED. ADDITIONAL GROWTH DUE TO SUBSEQUENT POSITIVE ABSORPTION MAY OCCUR.

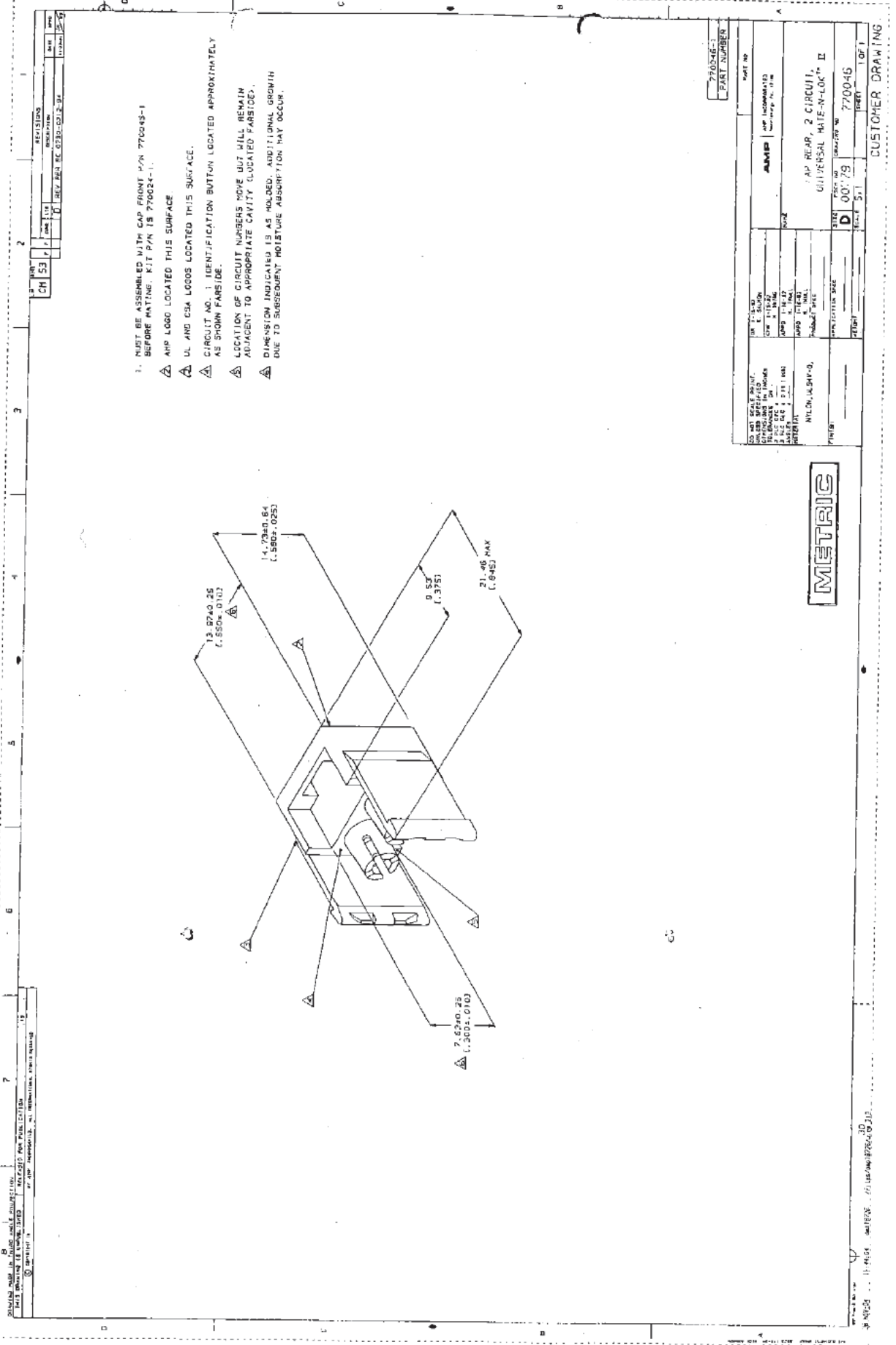


RECOMMENDED PANEL CUTOUT
(GROSS DIM ENTRY SIDE)
SCALE 2:1

770046-1 PART NUMBER	
PART NO	
DATE	REV
10/11	1
NAME	
CAP FRONT, 2 CIRCUIT, UNIVERSAL RATE-N-LOC™ II	
SIZE	FRONT VIEW
D	00775
SCALE	5:1
770045	LOF 1



27 FEB 56 ... 10/11/56 ... 10/11/56 ... 10/11/56

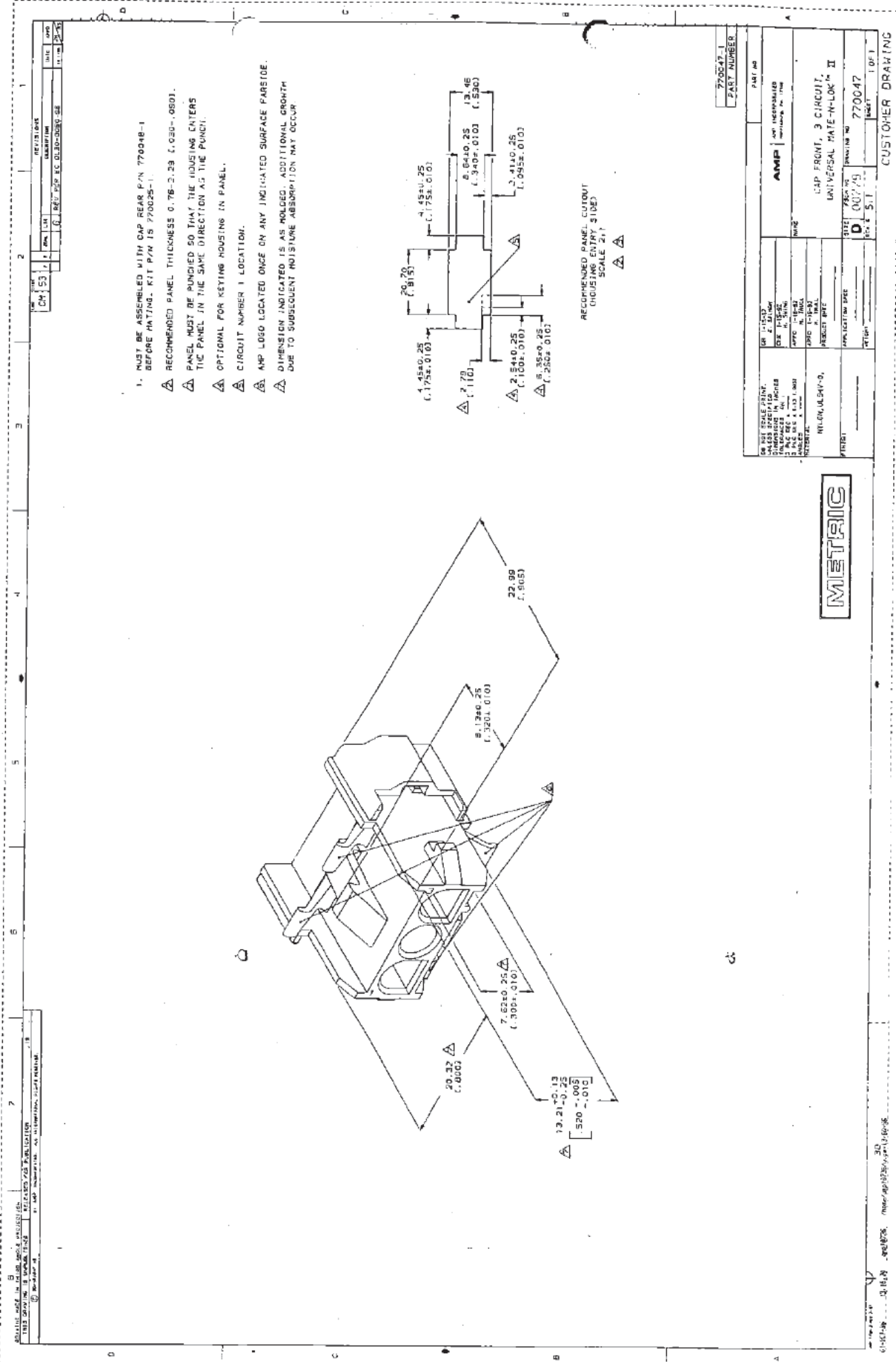


770046-1 PART NUMBER	
DATE	REV
11/13/79	D
11/13/79	001
11/13/79	002
11/13/79	003
11/13/79	004
11/13/79	005
11/13/79	006
11/13/79	007
11/13/79	008
11/13/79	009
11/13/79	010
11/13/79	011
11/13/79	012
11/13/79	013
11/13/79	014
11/13/79	015
11/13/79	016
11/13/79	017
11/13/79	018
11/13/79	019
11/13/79	020
11/13/79	021
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11/13/79	095
11/13/79	096
11/13/79	097
11/13/79	098
11/13/79	099
11/13/79	100

METRIC

CUSTOMER DRAWING

30
11-14-81 1041232-0110447724-0113



- MUST BE ASSEMBLED WITH CAP REAR P/N 770048-1 BEFORE MATING KIT P/N IS 770029-1.
- RECOMMENDED PANEL THICKNESS 0.76-3.29 (0.030-0.050).
- PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- OPTIONAL FOR SETTING HOUSING IN PANEL.
- CIRCUIT NUMBER 1 LOCATION.
- AMP LOGO LOCATED ONCE ON ANY INDICATED SURFACE FARESIDE.
- DIMENSION INDICATED IS AS MOLES. ADDITIONAL GROWTH DUE TO SUBSEQUENT HOUSING ABSORPTION MAY OCCUR.

RECOMMENDED PANEL CUTOUT
INCLUDING ENTRY SIDES
SCALE 2:1

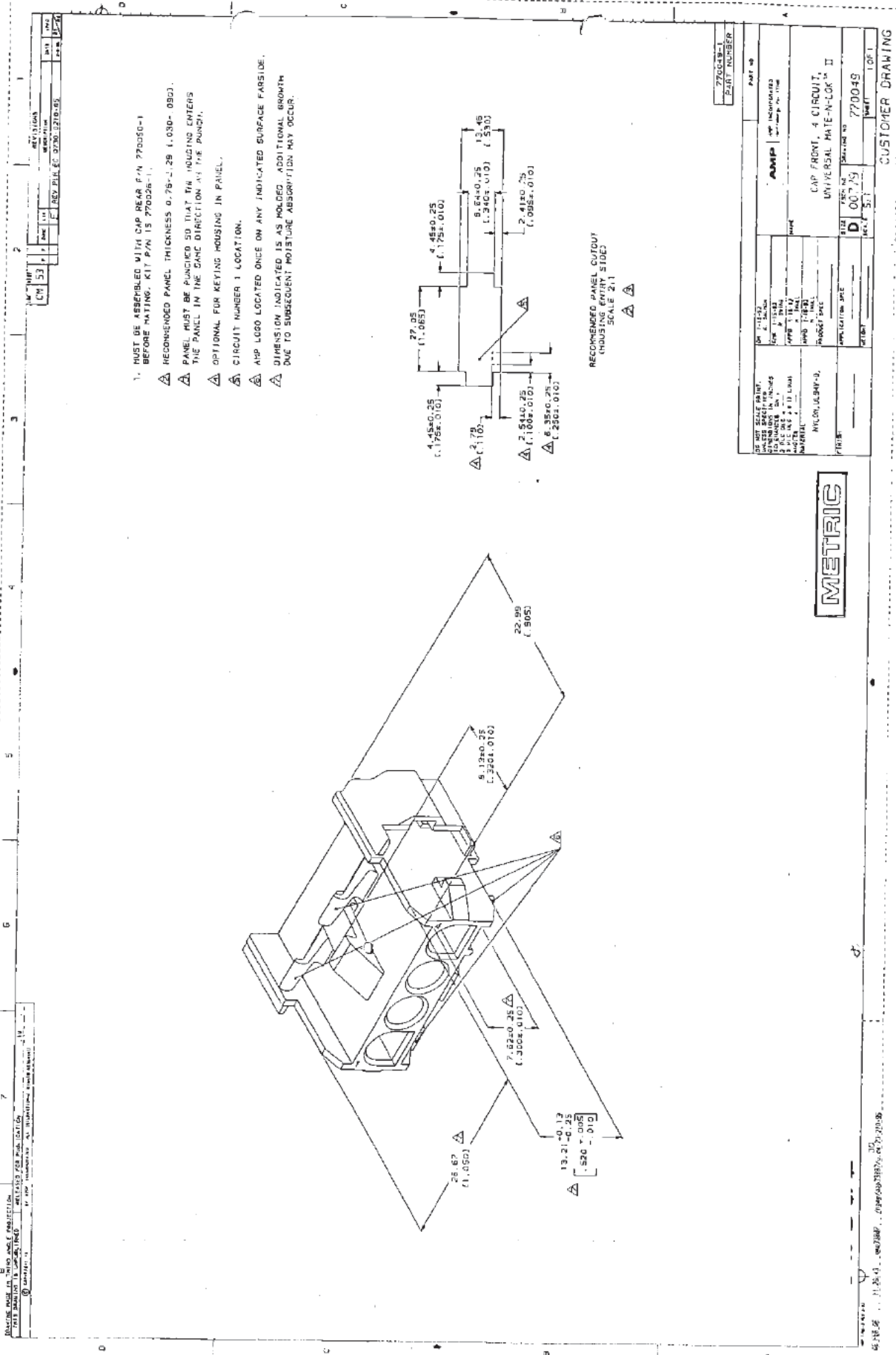
MIETRIC

DR 111000 DIMENSIONS IN MILLIMETERS 3 PLACE DECIMALS UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED		PART NAME AMP | NOT DIMENSIONAL REFERENCE TO THIS	
RELEASED BY: _____ DATE: _____ CHECKED BY: _____ DATE: _____ DRAWN BY: _____ DATE: _____		CAP FRONT, 3 CIRCUIT, UNIVERSAL RATE-IN-LOCK II	
PART NUMBER: _____ REV: _____ DATE: _____ BY: _____		SIZE: _____ SCALE: _____ PART NUMBER: 770047 REV: 5.1	

CUSTOMER DRAWING

61-51149-1 31 10/88 881078 88004025/3/24/10/88

FIG 102
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

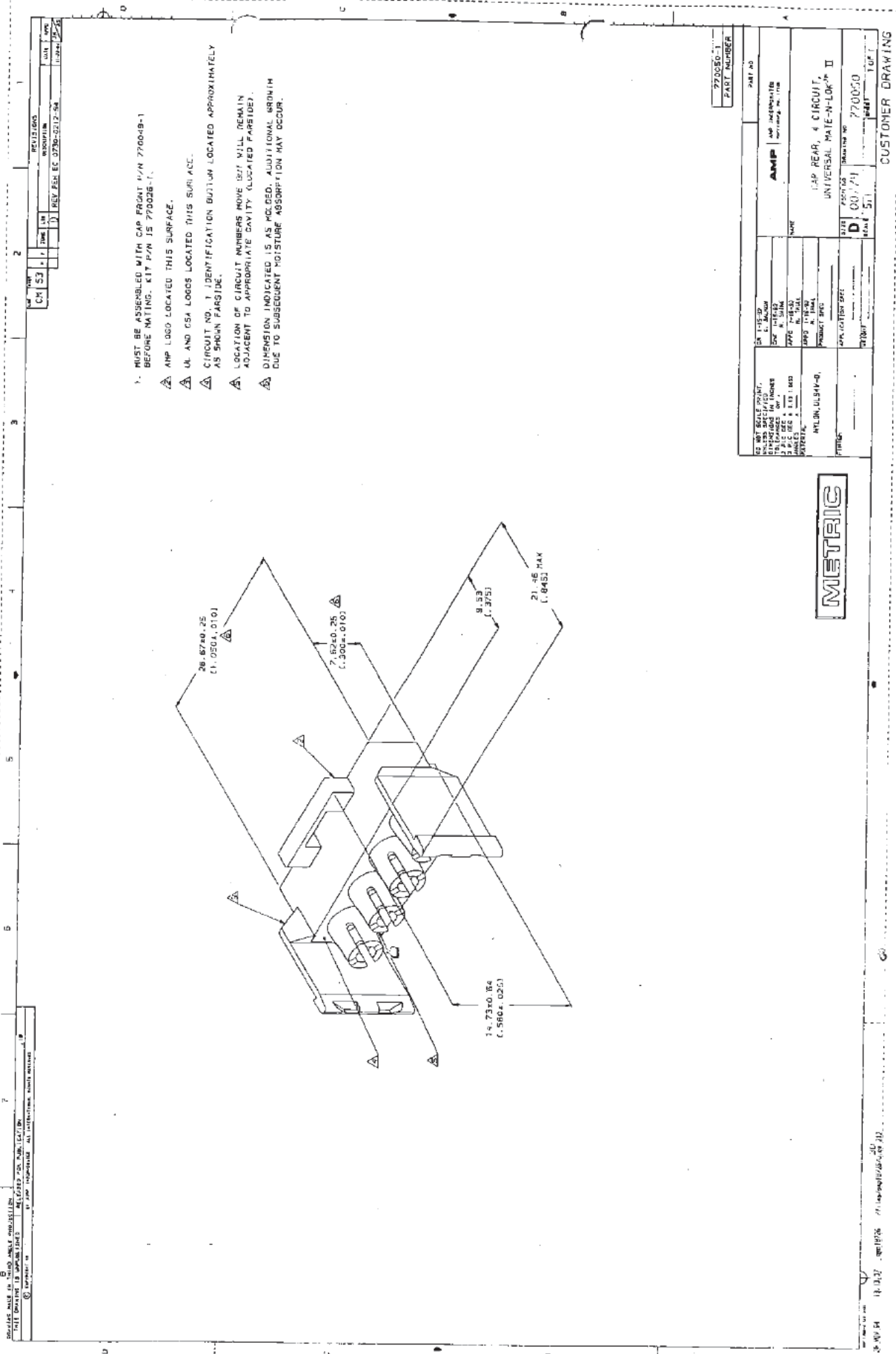


METRIC

CUSTOMER DRAWING

DE NOT SCALE PRINT. DIMENSIONS IN INCHES DIMENSIONS IN MILLIMETERS MATERIAL NYLON UL94V-0	PART NUMBER 770049-1
NAME CAP FRONT, 4 CIRCUIT, UNIVERSAL RATE-N-LOCK II	PART NUMBER 770049
APPLICATION NAME UNIVERSAL RATE-N-LOCK II	REV. NO. 00725
DATE 7-11-52	DRAWING NO. 770049
DRAWN BY J. J. BROWN	CHECKED BY J. J. BROWN
APPROVED BY J. J. BROWN	SCALE 2:1
MATERIAL NYLON UL94V-0	PART NUMBER 770049-1

FIG 104
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549



REV	DATE	BY	CHK'D	DESCRIPTION
1	02/28/84	...	...	REV PER EC 0730-0212-04

770050-1	PART NUMBER
AMP	PART NO
AMP	AMP IDENTIFIER
UNIVERSAL MATE-N-LOCK II	UNIVERSAL MATE-N-LOCK II
DATE: 02/28/84	DATE: 02/28/84
TIME: 10:51	TIME: 10:51

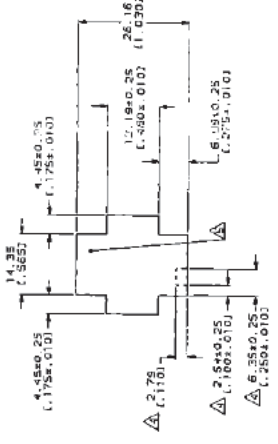
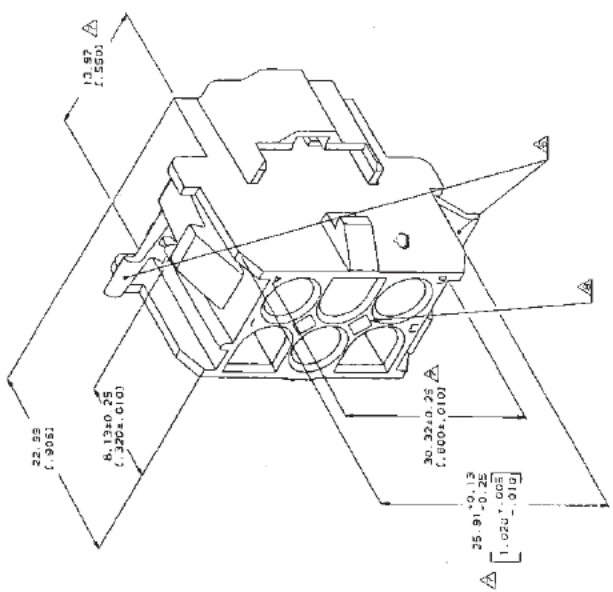
METRIC

18.0.27 001876 11 000018/04/07 33

FIG 105
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

REV	DATE	BY	CHK	DESCRIPTION
1				REVISED FOR PANEL CUTOUT
2				REVISED FOR PANEL CUTOUT
3				REVISED FOR PANEL CUTOUT
4				REVISED FOR PANEL CUTOUT
5				REVISED FOR PANEL CUTOUT
6				REVISED FOR PANEL CUTOUT
7				REVISED FOR PANEL CUTOUT

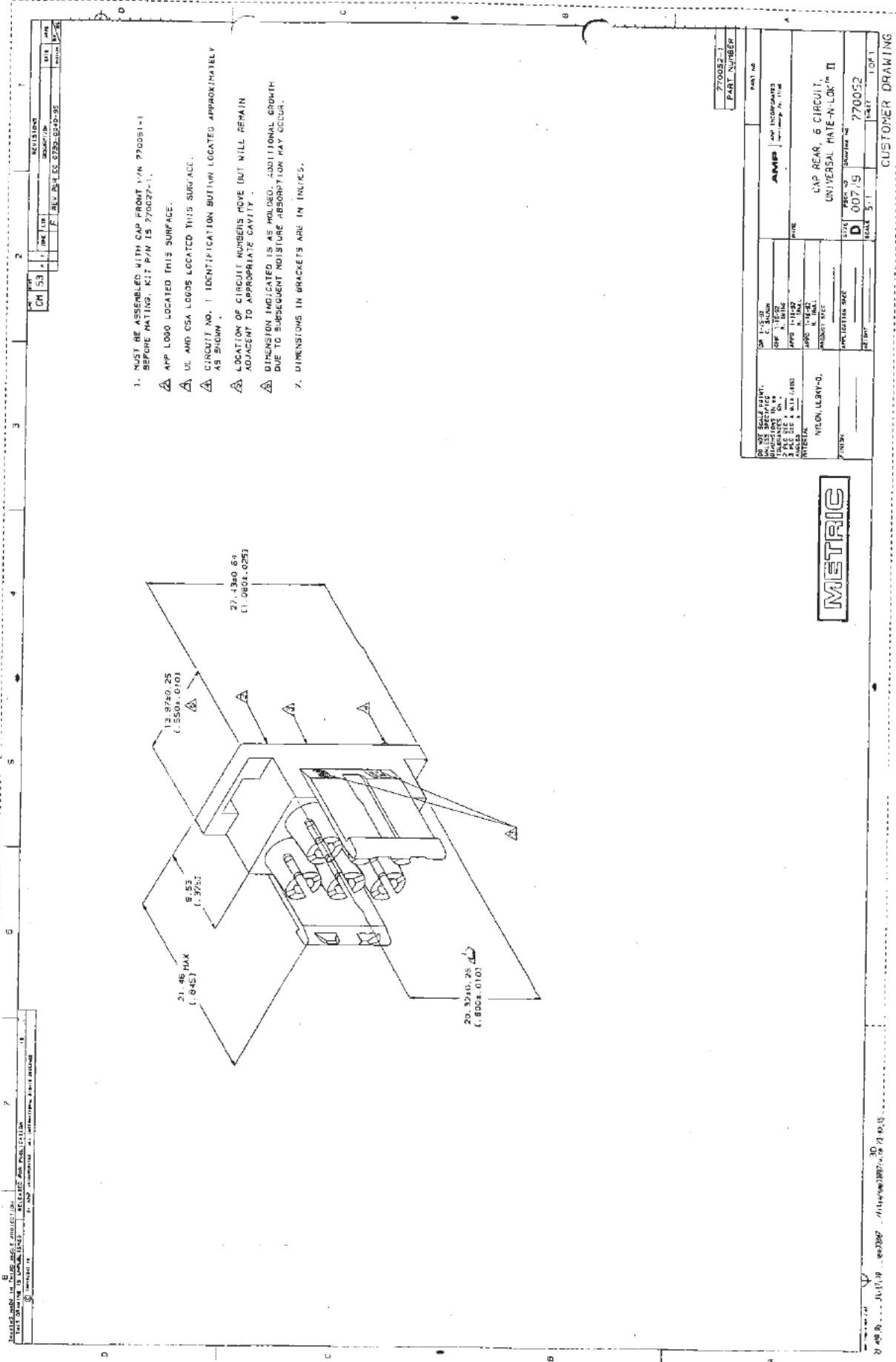
1. MUST BE ASSEMBLED WITH CAP REAR P/N 770052-1 BEFORE MATING. KIT P/N IS 770027-1.
- △ RECOMMENDED PANEL THICKNESS 0.78-1.29 (1.030-1.080).
- △ PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- △ OPTIONAL FOR KEYING HOUSING IN PANEL.
- △ CIRCUIT NUMBER 1 LOCATION.
- △ AMP LOOD LOCATED ONCE ON ANY FINISHED SURFACE FAR SIDE.
- △ DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
- △ OPTIONAL CONSTRUCTION PROVIDES ROUND MATERIAL REDUCTION CORING HOLES.



RECOMMENDED PANEL CUTOUT
(HOUSING ENTRY SIDE)
SCALE 2:1



770051-1		PART NUMBER	
770051-1		PART NAME	
AMP	AMP	AMP	AMP
CAP FRONT, 6 CIRCUIT		UNIVERSAL MATE-N-LOCK II	
REV	DATE	REVISED BY	REVISED TO
D	00779		770051
PAGE 5/1		PAGE 5/1	
CUSTOMER DRAWING			



1. MUST BE ASSEMBLED WITH CAP FRONT P/N 770051-1 BEFORE MATING. KIT P/N IS 770027-1.
- ▲ APP LOGO LOCATED THIS SURFACE.
- ▲ UL AND CSA LOGOS LOCATED THIS SURFACE.
- ▲ CIRCUIT NO. 1 IDENTIFICATION BUTTIN LOCATED APPROXIMATELY AS SHOWN.
- ▲ LOCATION OF CIRCUIT NUMBERS ABOVE BUT WILL REMAIN ADJACENT TO APPROPRIATE CAVITY.
- ▲ DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
7. DIMENSIONS IN BRACKETS ARE IN INCHES.

REV	DATE	BY	CHK'D	DESCRIPTION
1	07/19/93	...	...	...
2	07/19/93	...	...	...
3	07/19/93	...	...	...
4	07/19/93	...	...	...
5	07/19/93	...	...	...
6	07/19/93	...	...	...
7	07/19/93	...	...	...

770052-1 PART NUMBER	
PART NO.	
DO NOT SCALE DRAWING DIMENSIONS SHOWN UNLESS SPECIFIED TOLERANCES ON DIMENSIONS ARE AS SHOWN UNLESS OTHERWISE SPECIFIED	APP'D AND INCORPORATED DATE
NYLON UL94V-0	CAP REAR, 6 CIRCUIT, UNIVERSAL RATE-N-LOCK II
77051	REV. NO. 007/93
APPLICATION SPEC.	DATE 5-11-93
DATE	770052
SCALE 5:1	REV. 1
CUSTOMER DRAWING	

METRIC

20 008 B, ... 15/17/93 ... 000387 ... 11/10/93/10/10/93/10/10/93/10/10/93

FIG 107
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

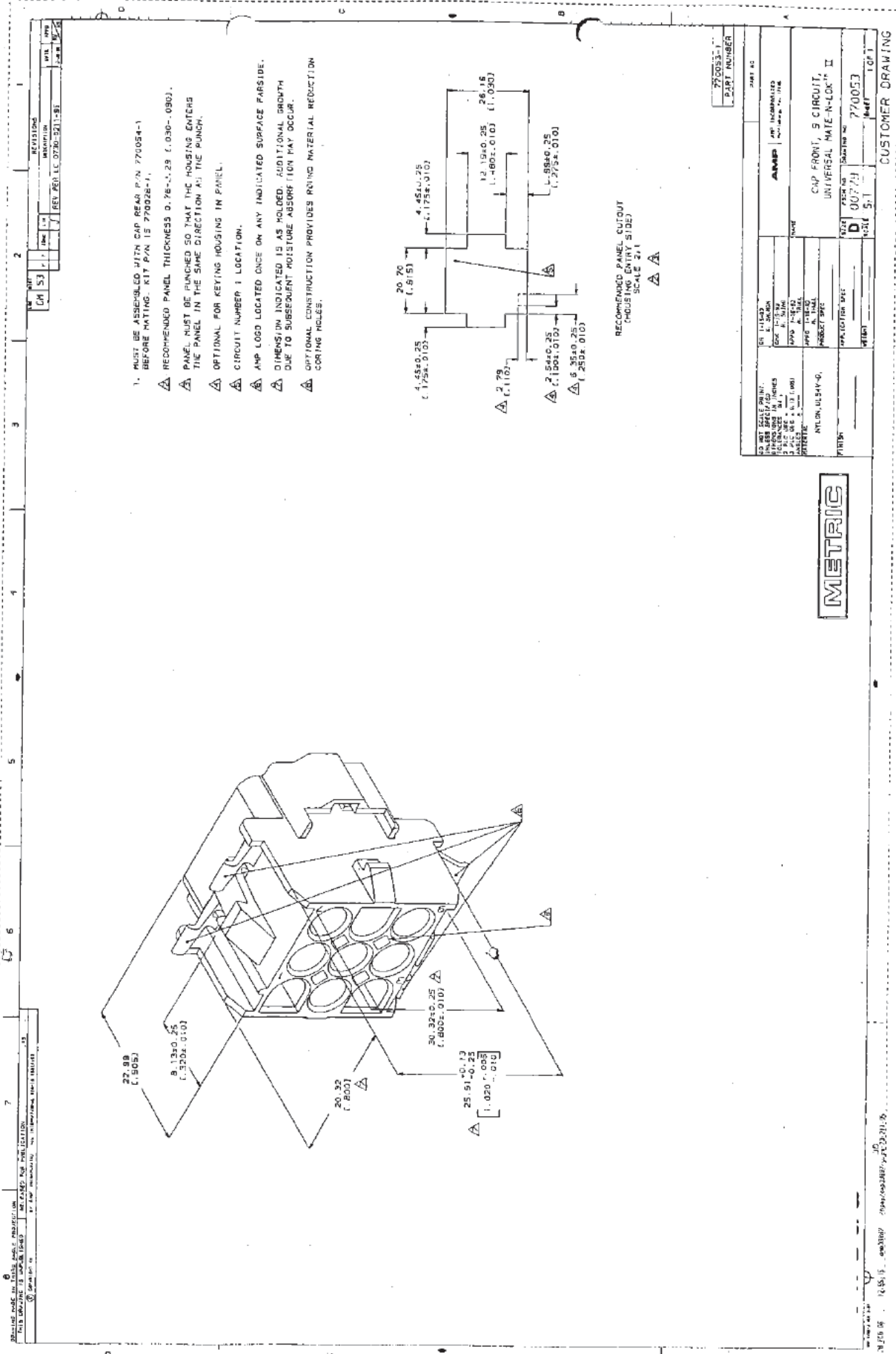


FIG 108
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

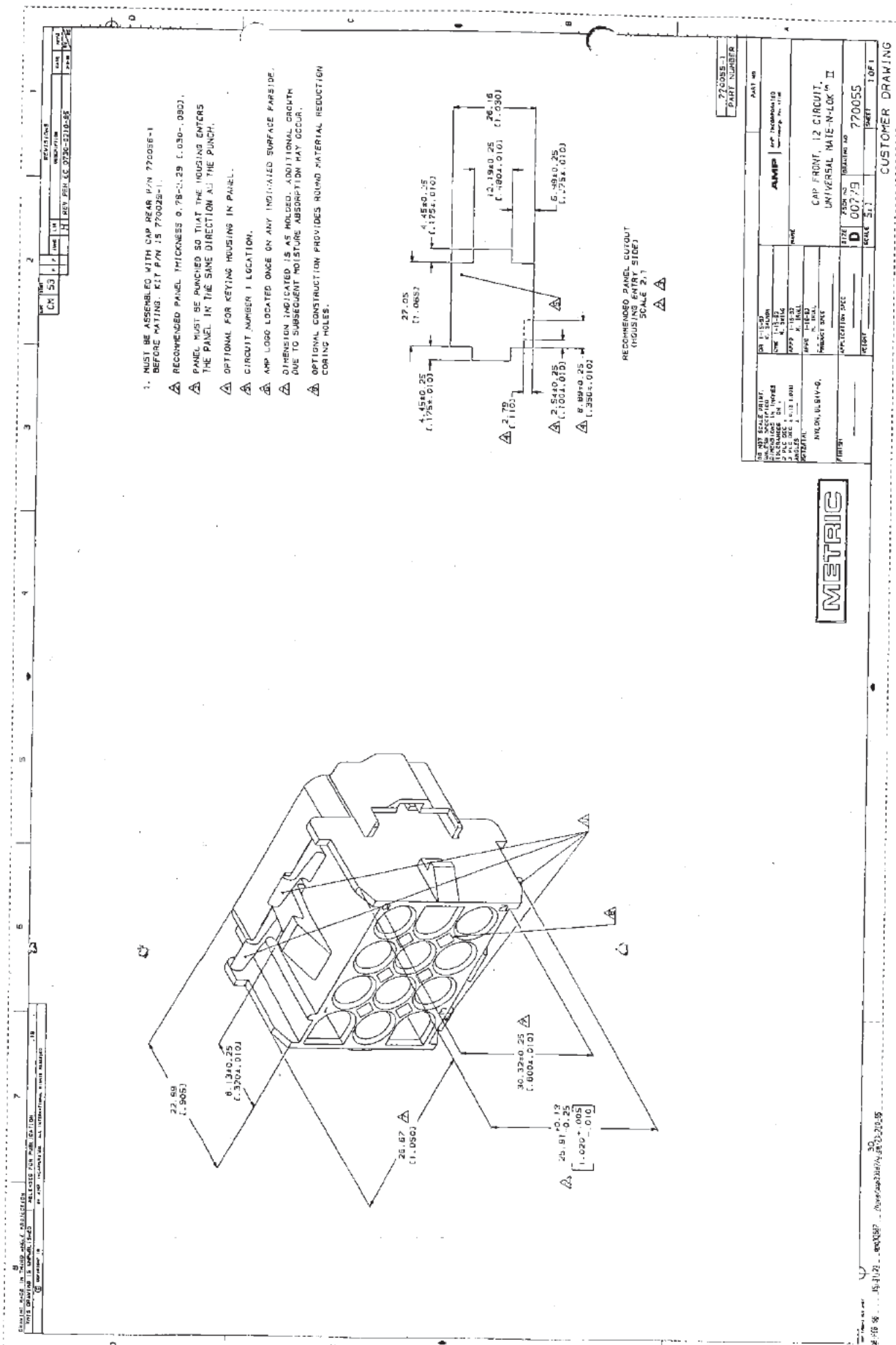
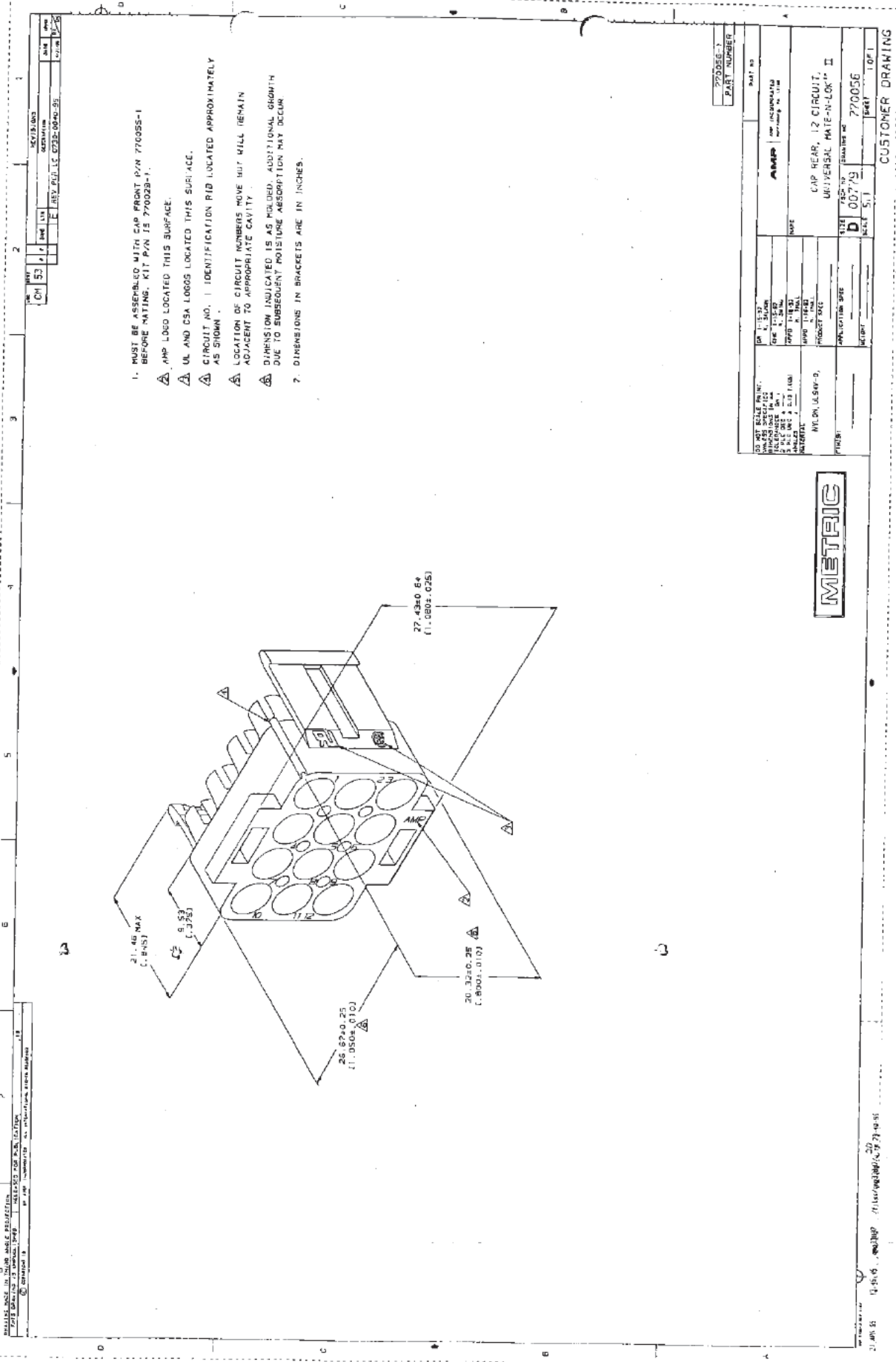


FIG 110
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



1. MUST BE ASSEMBLED WITH CAP FRONT P/N 770055-1 BEFORE MOUNTING. KIT P/N IS 770029-1.
2. AMP LOGO LOCATED THIS SURFACE.
3. UL AND CSA LOGOS LOCATED THIS SURFACE.
4. CIRCUIT NO. 1 IDENTIFICATION RIB LOCATED APPROXIMATELY AS SHOWN.
5. LOCATION OF CIRCUIT NUMBERS NONE BUT WILL REMAIN ADJACENT TO APPROPRIATE CAVITY.
6. DIMENSION INDICATED IS AS FOLLOWS. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
7. DIMENSIONS IN BRACKETS ARE IN INCHES.

REV	DATE	BY	CHKD	DESCRIPTION
1	11/15/79	...	...	...
2	...	...	...	...

PART NUMBER		770055-1	
PART NO		770055-1	
MATERIAL		NYLON 6.6	
FINISH		...	
APPLICATION SITE		...	
DATE		11/15/79	
BY		...	
CHKD		...	
DESCRIPTION		CAP REAR, 12 CIRCUIT, UNIVERSAL MATE-IN-LOCK II	
SIZE		D 00779	
SCALE		5:1	
SHEET		270056	
TOP		1 OF 1	



11-15-79

FIG 111
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

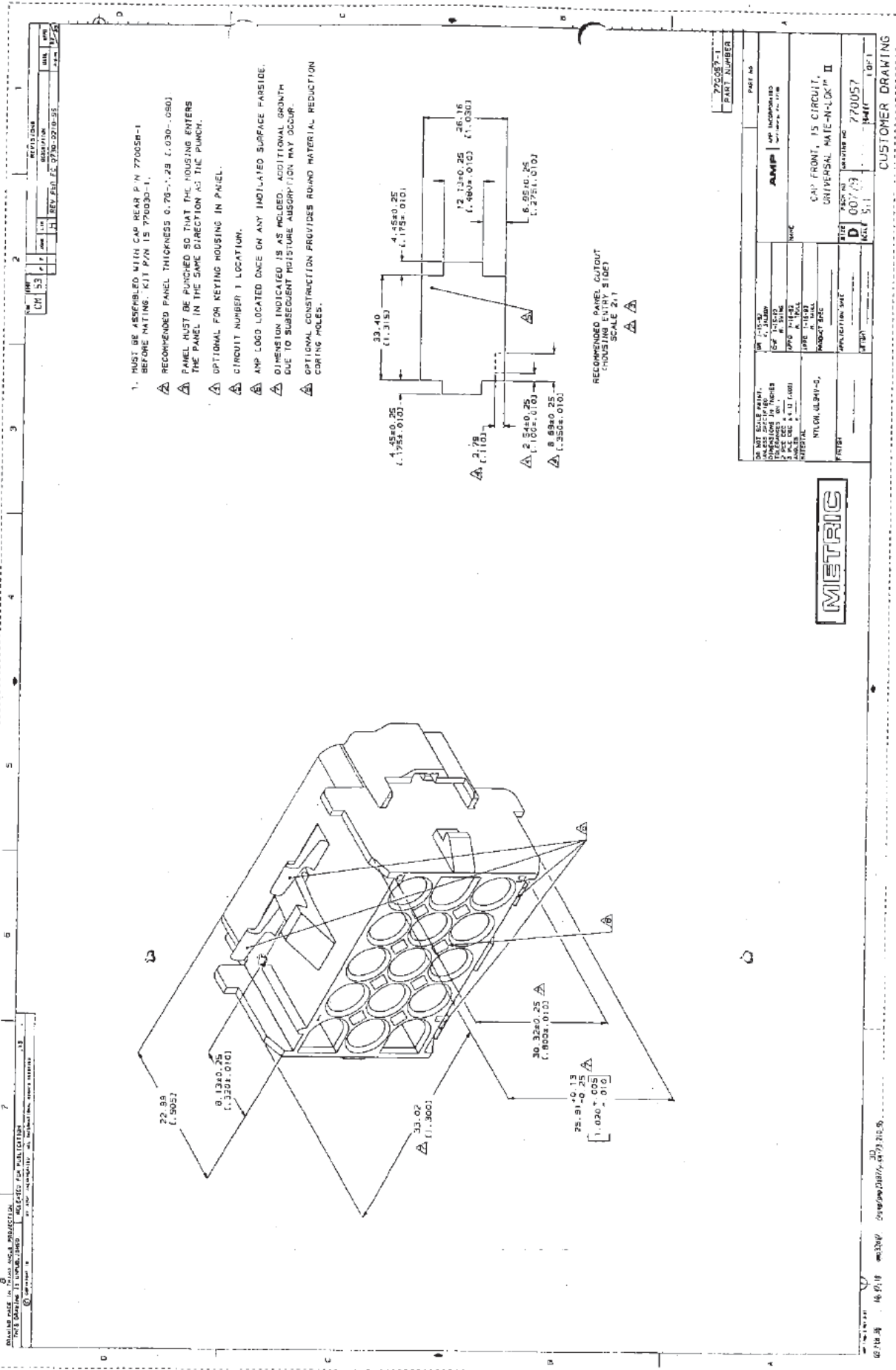
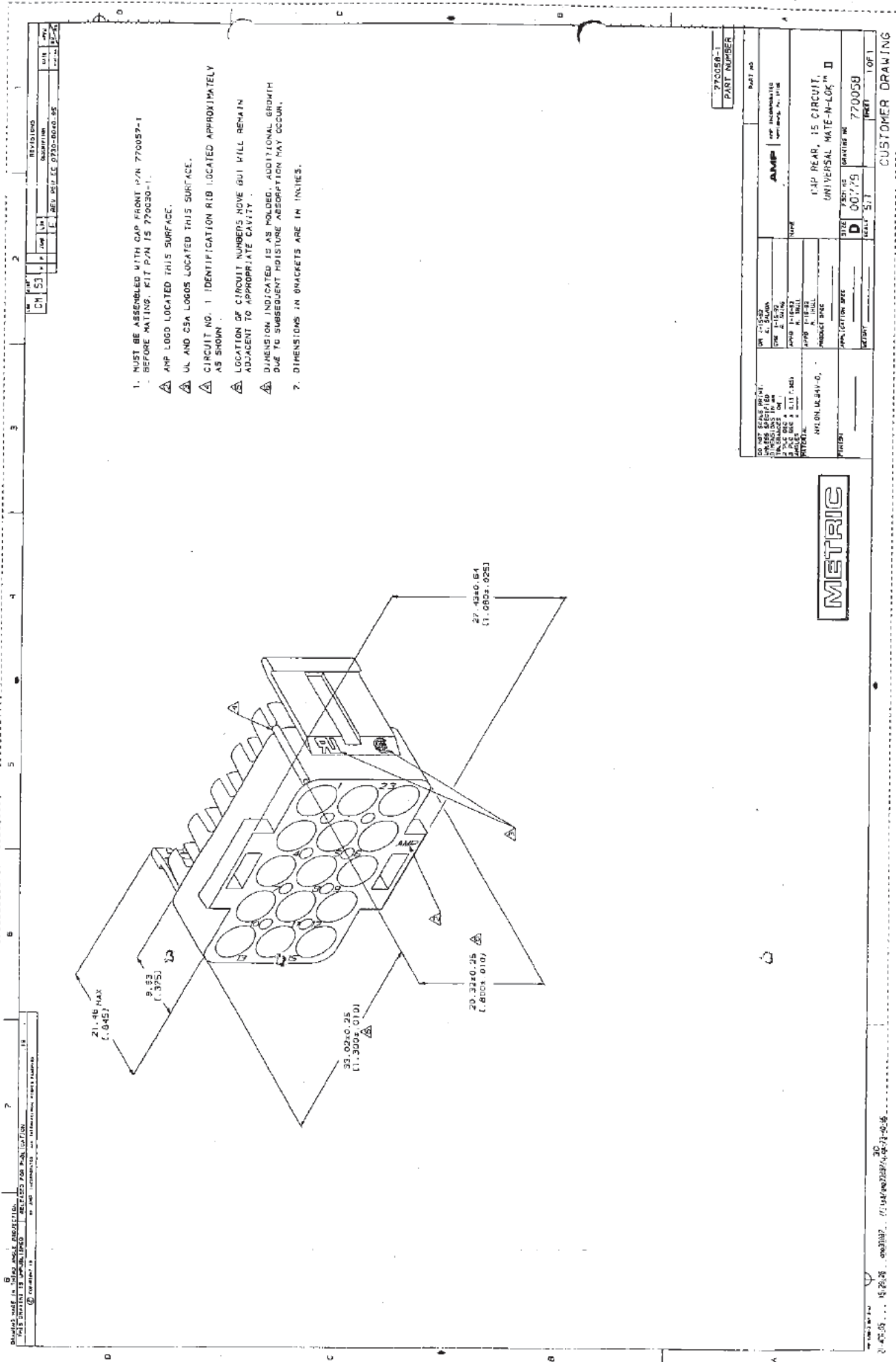


FIG 112
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549



1. MUST BE ASSEMBLED WITH CAP FRONT P/N 770057-1 BEFORE MATING. KIT P/N IS 770030-1.
- ▲ AMP LOGO LOCATED THIS SURFACE.
- ▲ UL AND CSA LOGOS LOCATED THIS SURFACE.
- ▲ CIRCUIT NO. 1 IDENTIFICATION RIB LOCATED APPROXIMATELY AS SHOWN.
- ▲ LOCATION OF CIRCUIT NUMBERS HOME GUT WILL REMAIN ADJACENT TO APPROPRIATE CAVITY.
- ▲ DIMENSION INDICATED IS AS MOUNTED. ADDITIONAL GERM WITH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
7. DIMENSIONS IN BRACKETS ARE IN INCHES.

REV	DATE	BY	CHKD	DESCRIPTION
CM 53				REVISED TO ADD DIMENSIONS
				REVISED TO ADD DIMENSIONS
				REVISED TO ADD DIMENSIONS

770058-1		PART NUMBER	
PART NO.			
AMP			
TYPE			
CIRCUIT NO. 1			
UNIVERSAL MATE-IN-LOC			
SIZE	D	067.75	770058
REACT	5.1		
CUSTOMER DRAWING			

METRIC

21-05-85... 15-02-85... 11-15-84/02/28/4-25-73-40-56

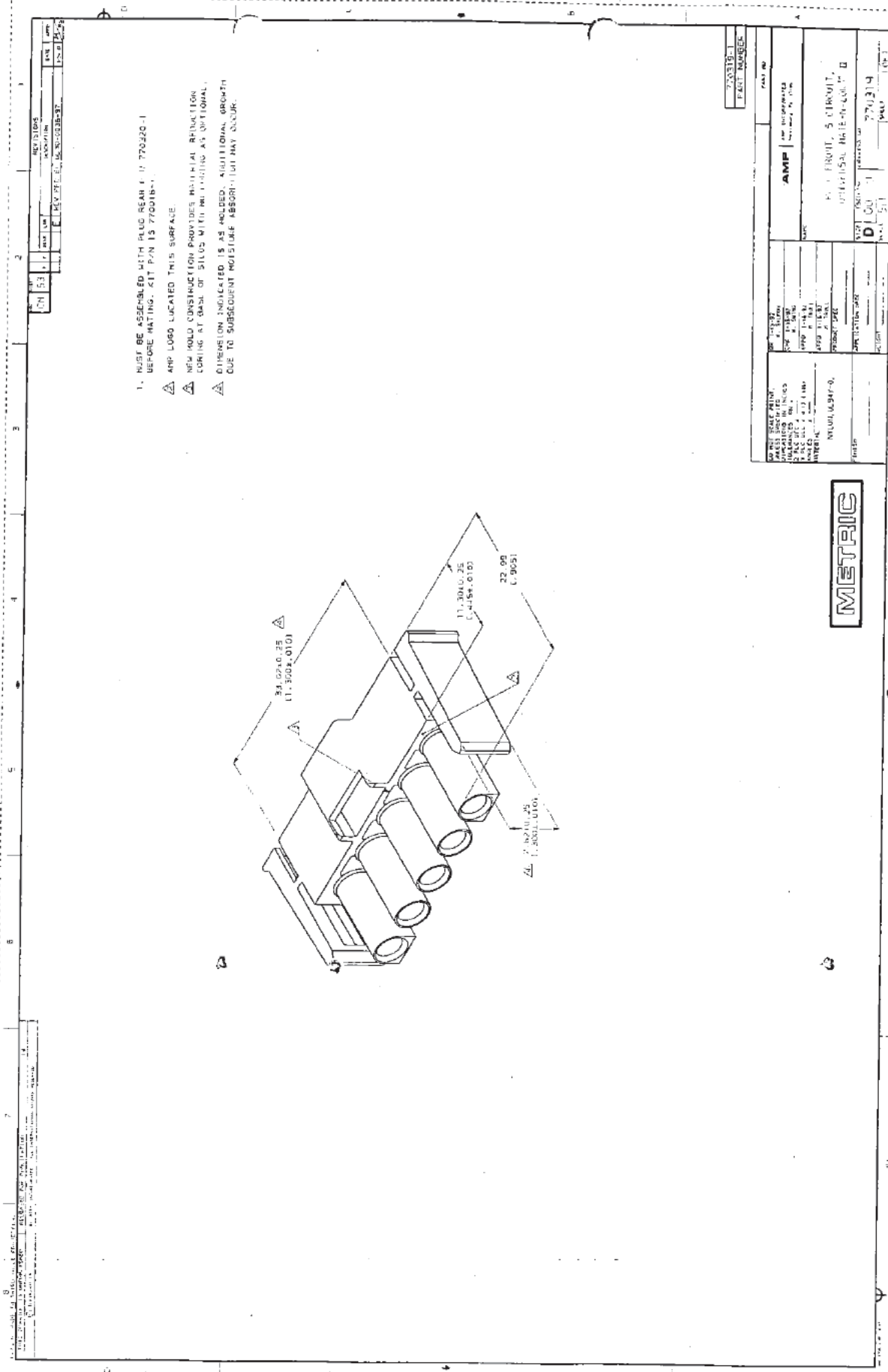
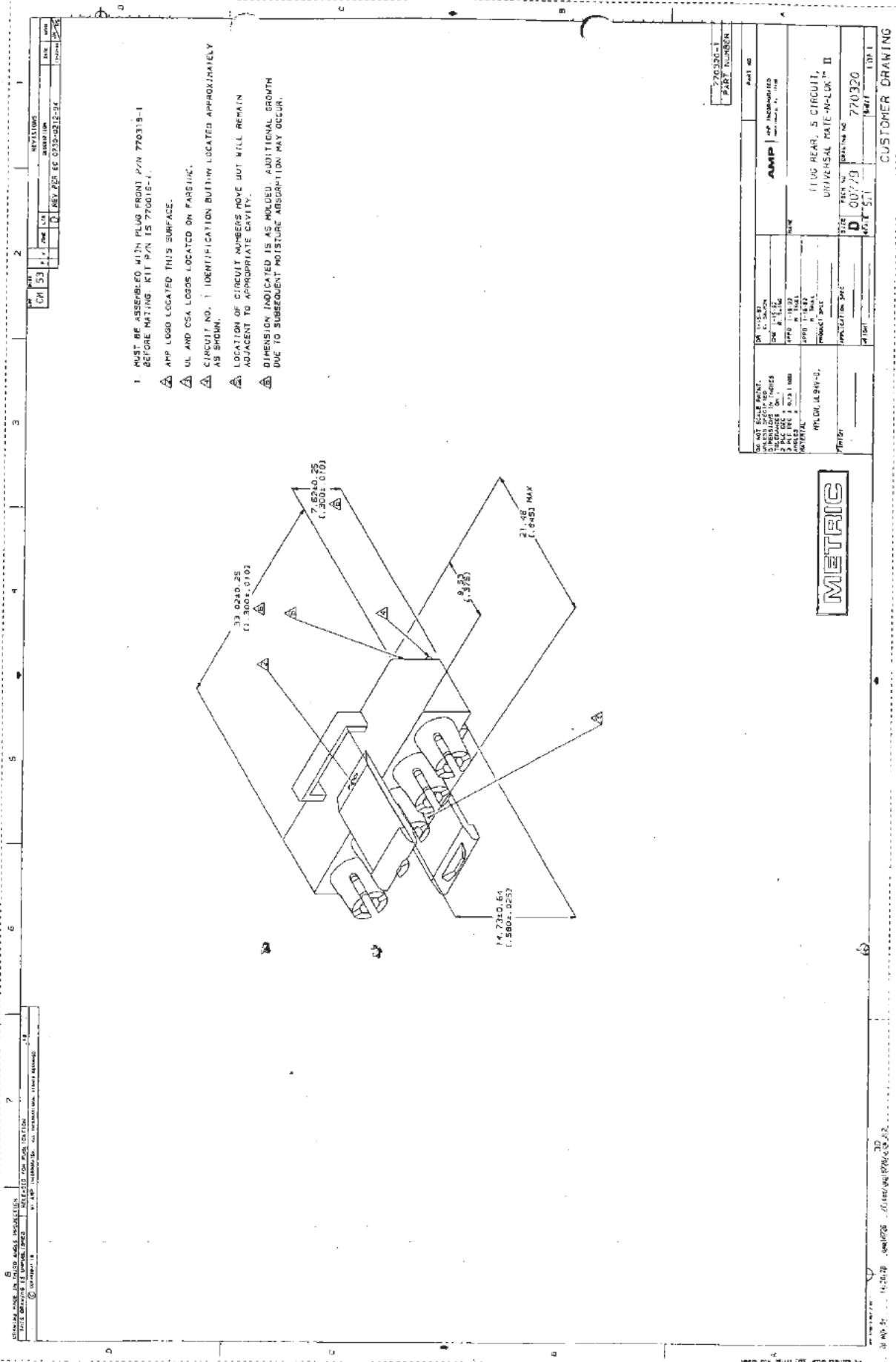


FIG 114
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549



- 1. MUST BE ASSEMBLED WITH PLUG FRONT P/N 770315-1 BEFORE MOUNTING KIT P/N IS 770015-1.
- △ AMP LOGO LOCATED THIS SURFACE.
- △ UL AND CSA LOGOS LOCATED ON REVERSE.
- △ CIRCUIT NO. 1 IDENTIFICATION BUTHWY LOCATED APPROXIMATELY AS SHOWN.
- △ LOCATION OF CIRCUIT NUMBERS MOVE BUT WILL REMAIN ADJACENT TO APPROPRIATE CAVITY.
- △ DIMENSION INDICATED IS AS MOLDED - ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.

770030-1 PART NUMBER		PART NO	
AMP		AMP INCORPORATED	
MFG DATE: 11/82		MFG DATE: 11/82	
MFG LOT: 11822		MFG LOT: 11822	
MFG PLANT: 11822		MFG PLANT: 11822	
MFG MODEL: 11822		MFG MODEL: 11822	
MFG MATERIAL: 11822		MFG MATERIAL: 11822	
MFG FINISH: 11822		MFG FINISH: 11822	
MFG APPLICATION: 11822		MFG APPLICATION: 11822	
MFG PART NO: 770030		MFG PART NO: 770030	
MFG SIZE: 40.1 x 51.1		MFG SIZE: 40.1 x 51.1	
MFG TYP: I		MFG TYP: I	

METRIC

CUSTOMER DRAWING

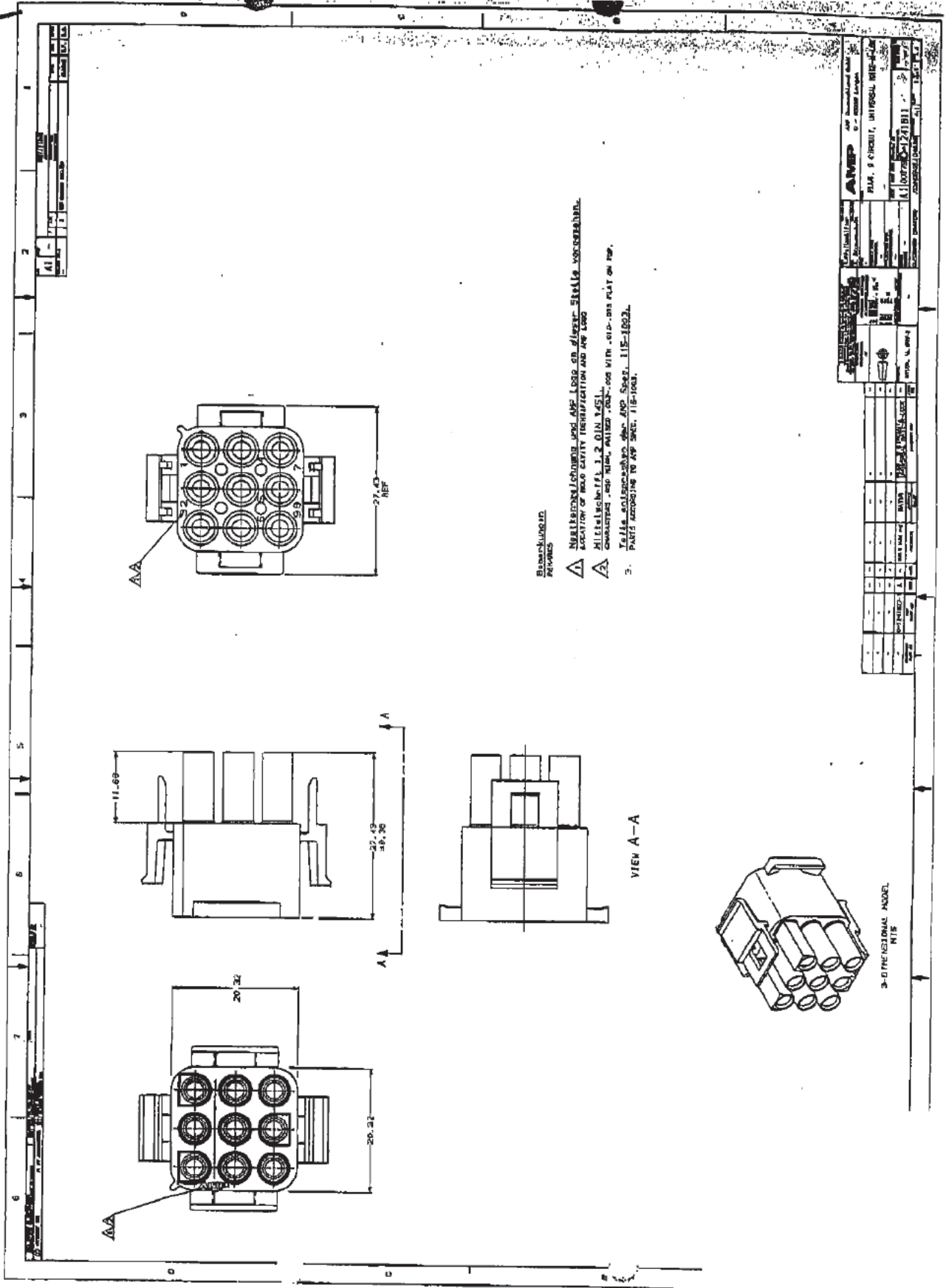


FIG 116
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

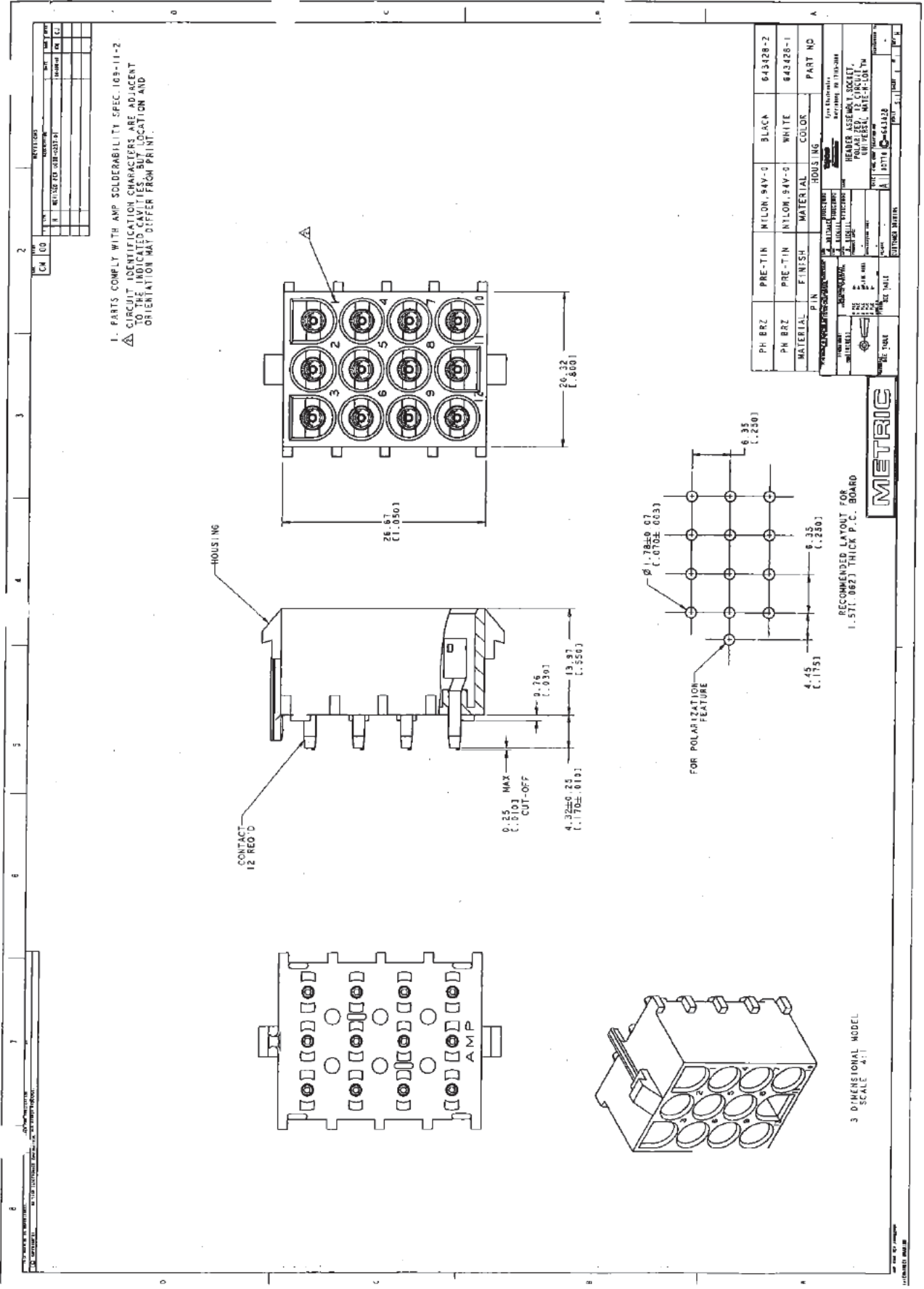
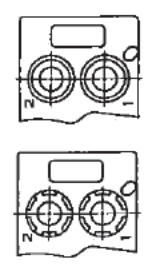
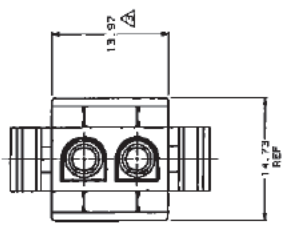


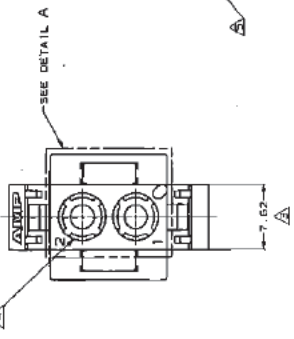
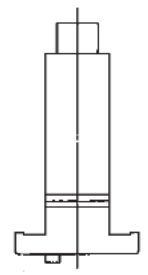
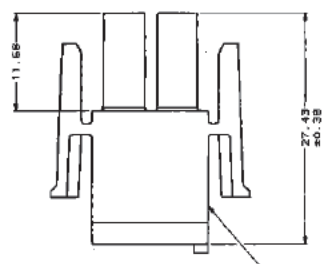
FIG 117
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

CH 53 TO REVISED PER EC 0028-0277-01
 DRAWING NUMBER: 1030930-01
 PART NUMBER: 794814-1

1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOR™ CAP OR NUTTER.
 2. SMALL NICKS ARE PERMITTED ON THE CIRCUIT TOWERS WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 4.4 NEWTONS (1.0 LBS). DO NOT INCLUDE NICKED TOWER SHALL BE MATED TO THE INITIAL MATING FORCE BY OTHER 2.2 NEWTONS (.5 LBS).
- ▲ DIMENSION INDICATED IS AS MATED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
 - ▲ FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION. OPTIONAL.
 - ▲ UNDERWRITERS RECOGNIZED COMPONENT USED AND CSA CERTIFICATION USED TO BE LOCATED ON EACH SIDE OF HOUSING.



DETAIL A
 OPTIONAL CONSTRUCTION



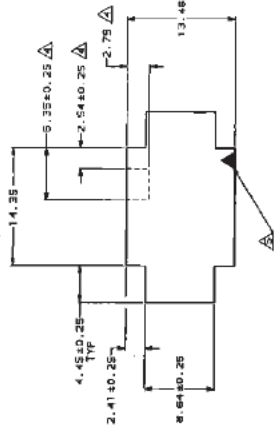
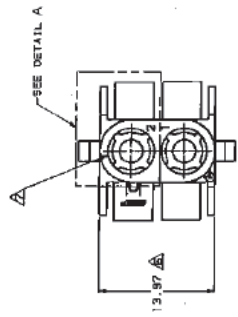
MM	IN
27.43	1.080
14.73	.580
13.97	.550
11.68	.460
7.62	.300
3.18	.125
0.13	.005

METRIC

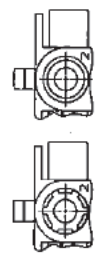
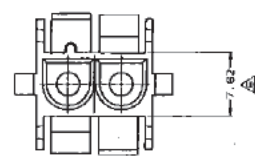
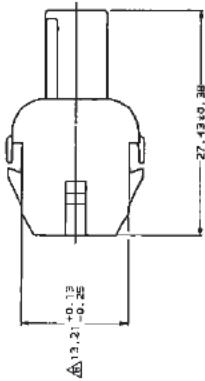
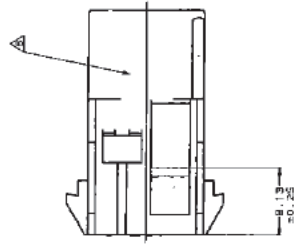
AMP Integrated Circuit
 2 CIRCUIT UNIVERSAL MATE-N-LOR™
 A1 00779 794814
 1030930-01

15-MAR-01 13:25:32 REV 003/Rev 04/05/01

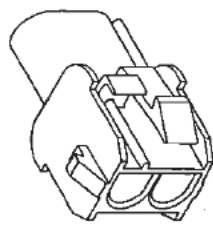
1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ PLUG.
 2. RECOMMENDED PANEL THICKNESS 0.76 - 2.26.
 3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- △ OPTIONAL FOR KEYING HOUSING IN PANEL.
 - △ CIRCUIT NUMBER 1 LOCATION.
 - △ DIMENSION INDICATED AS MOLDED.
 - △ DIMENSION INDICATED AS PUNCHED.
 - △ DIMENSION INDICATED AS MOULDED. CONFORMANCE TO MIL-STD-1397B MOISTURE ABSORPTION MAY OCCUR.
 - △ FOUR RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS OR SEVEN RIBS SPECIFIC ORIENTATION. OPTIONAL.
 - △ UNDESIRABLE IF CONTACT COMPONENT USED. UNDESIRABLE IF CONTACT COMPONENT IS LOCATED ONCE EACH ON SIDE OF HOUSING.



RECOMMENDED PANEL CUT OUT



OPTIONAL CONSTRUCTIONS



3-DIMENSIONAL MODEL NTS

MM	IN.	MM	IN.
4.43	.175	27.43	1.080
2.75	.110	4.35	.565
2.54	.100	3.97	.560
2.41	.095	3.46	.530
6.25	.250	13.21	.520
6.78	.267	13.97	.550
0.38	.015	8.13	.320
0.25	.010	7.62	.300
0.13	.005	6.35	.250

CONVERSION TABLE

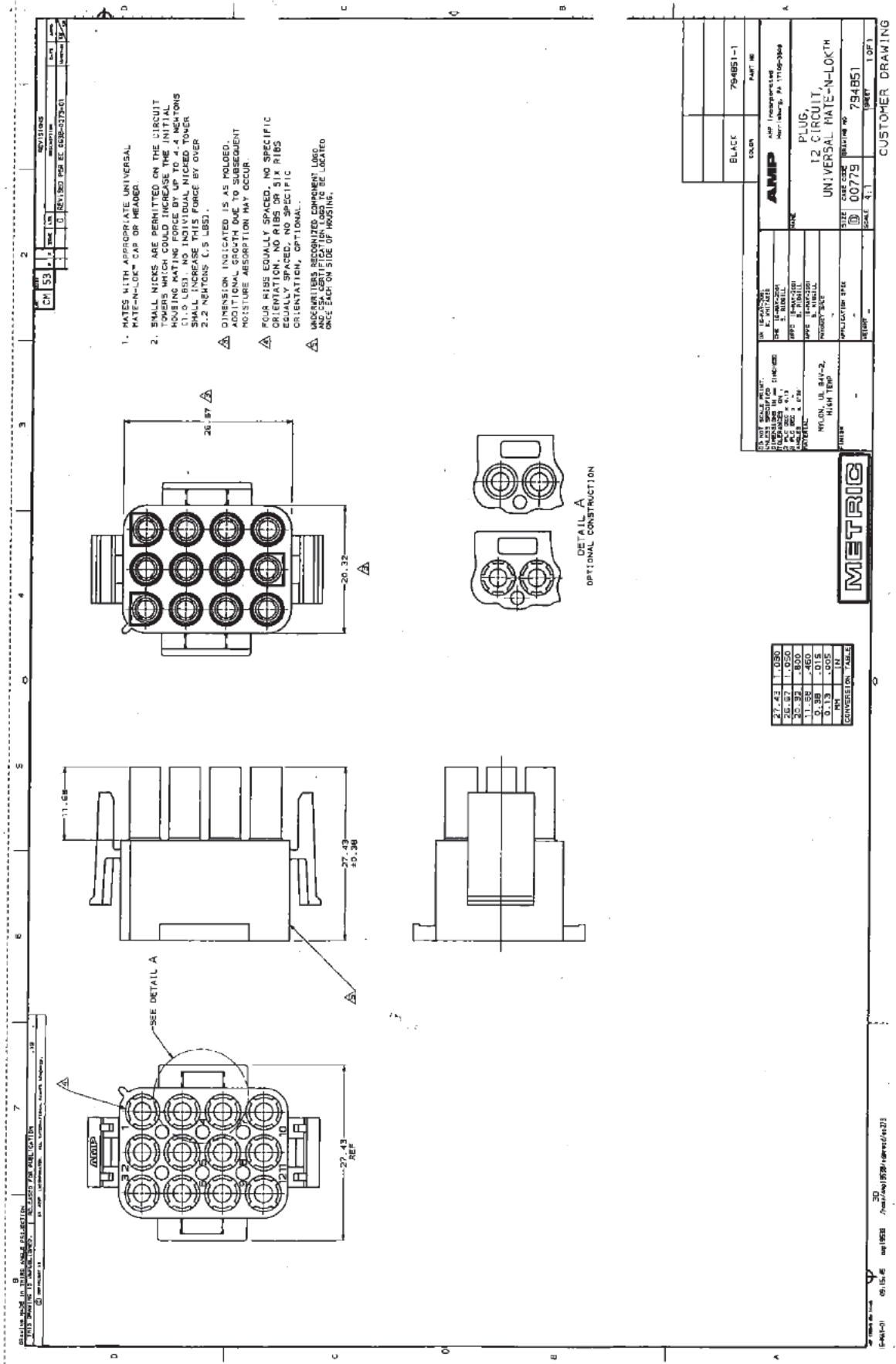
METRIC

100% METRIC
 UNLESS OTHERWISE SPECIFIED
 DIMENSIONS IN MILLIMETERS
 TOLERANCES ARE:
 FRACTIONS DECIMALS
 .05 .15 .25 .30 .40 .50 .60 .70 .80 .90 1.00 1.50 2.00 3.00 4.00 5.00
 MILLON L1 9A4-2 HIGH TEMP
 FILTER

DO NOT SCALE DRAWING. UNLESS OTHERWISE SPECIFIED DIMENSIONS IN MILLIMETERS TOLERANCES ARE: FRACTIONS DECIMALS .05 .15 .25 .30 .40 .50 .60 .70 .80 .90 1.00 1.50 2.00 3.00 4.00 5.00 MILLON L1 9A4-2 HIGH TEMP FILTER	OR (S-AMP) 2321 MIL-STD-883C CLASS B TEST METHOD 1009.2 TEST SAMPLE SIZE 100 ACCEPTANCE NUMBER 5 FAILURE MODE & MEASUREMENT TEST RATE 2 PER HOUR TEST TEMPERATURE 175°C TEST EQUIPMENT MODEL 411	AMP AMP International Inc. 1000 WISCONSIN AVE. MILWAUKEE, WI 53219-2818	BLACK COLOR 750415-1 PART #6
---	---	---	---------------------------------------

CAP. 2 CIRCUIT,
UNIVERSAL MATE-N-LOK™

CUSTOMER DRAWING



1. HATES WITH APPROPRIATE UNIVERSAL HATE-N-LOK™ CAP OR HEADER.
 2. SMALL NICKS ARE PERMITTED ON THE CIRCUIT ENDS PROVIDED THE NICKS DO NOT EXCEED HOUSING MATING FORCE BY UP TO 4 NEWTONS (1.0 LBS). NO INDIVIDUAL NICKED TOWER SHALL INCREASE THIS FORCE BY OVER 2.2 NEWTONS (.5 LBS).
- △ DIMENSION INDICATED IS AS POLED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
- △ FOUR RISES EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL. RISES EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL.
- △ UNSCREWED RECOGNIZED COMPONENT LOSS AND CSA IDENTIFICATION LOG TO BE LOCATED ONCE EACH ON SIDE OF HOUSING.

27.43	0.80
26.97	1.050
37.43	1.500
0.38	0.015
0.13	0.005
MM	IN

CONVERSION TABLE

IN THIS SPECIFICATION THE UNITS OF MEASUREMENT ARE METRIC UNITS. THE UNITS OF MEASUREMENT ARE METRIC UNITS. THE UNITS OF MEASUREMENT ARE METRIC UNITS.	AMP	AMP	AMP
PLUG, 12 CIRCUIT, UNIVERSAL HATE-N-LOK™	12	12	12
UNIVERSAL HATE-N-LOK™	UNIVERSAL HATE-N-LOK™	UNIVERSAL HATE-N-LOK™	UNIVERSAL HATE-N-LOK™
00779	00779	00779	00779
794851	794851	794851	794851
SCALE 4:1	SCALE 4:1	SCALE 4:1	SCALE 4:1
1 OF 1	1 OF 1	1 OF 1	1 OF 1

FIG 120
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

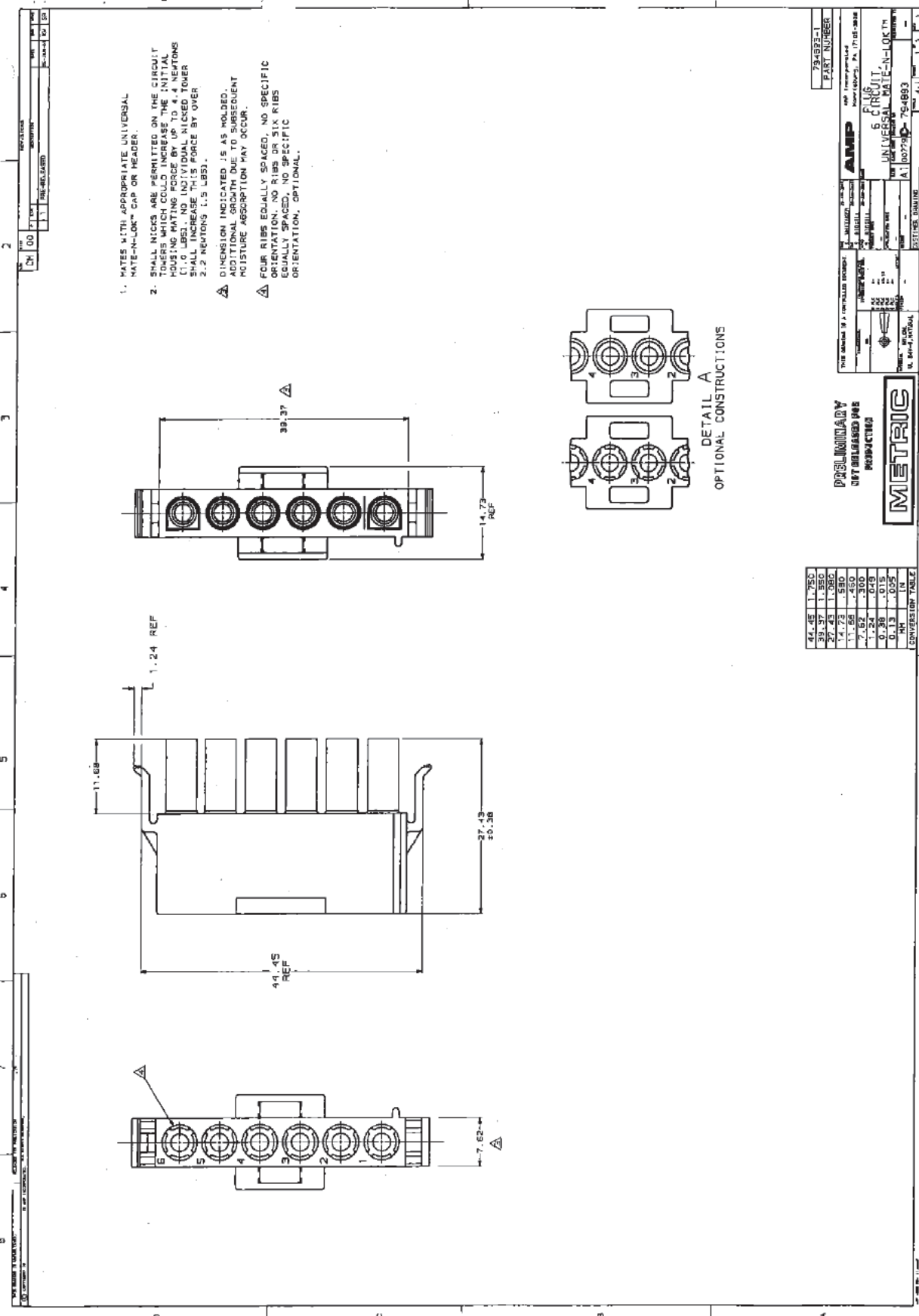
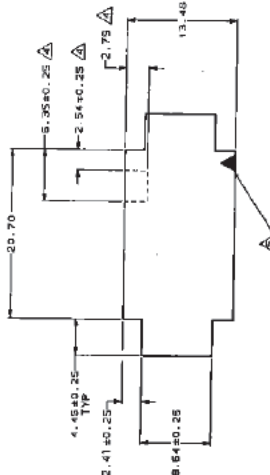
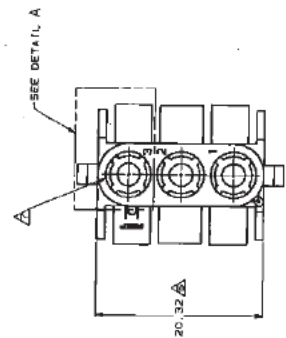


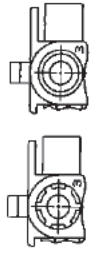
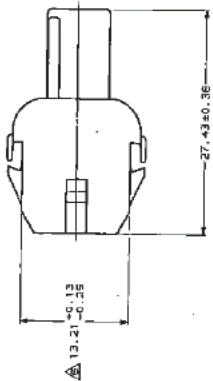
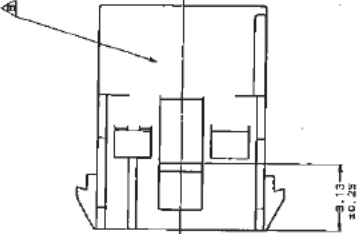
FIG 121
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REV	BY	CHKD	DATE	0	REVISED PER EE 9832-072-01
				1	
				2	
DESCRIPTION				DRAWING NO.	
UNIVERSAL MATE-N-LOCK-PLUG				794900-1	
CH 53					

1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOCK PLUG.
 2. RECOMMENDED PANEL THICKNESS 0.75 - 2.25.
 3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- ▲ OPTIONAL FOR KEYING HOUSING IN PANEL.
 ▲ CIRCUIT NUMBER 1 LOCATION.
 ▲ DIMENSION INDICATED IS AS HOUSED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
 ▲ FOUR RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. NO RIBS OR RIBS AT 90° ORIENTATIONS. OPTIONAL.
 ▲ UNDERMOUNTS RECOMMENDED. COMPONENT LEGS AND CSA IDENTIFICATION LOGO TO BE LOCATED ONCE EACH ON SIDE OF HOUSING.



RECOMMENDED PANEL CUT OUT



DETAIL A
OPTIONAL CONSTRUCTIONS

CONVERSION TABLE

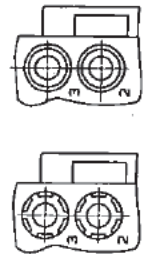
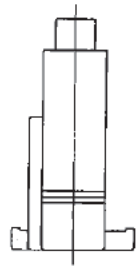
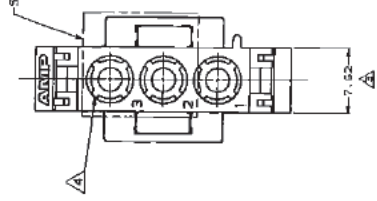
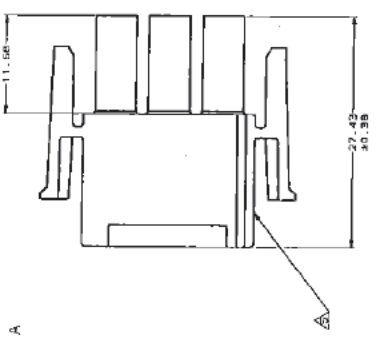
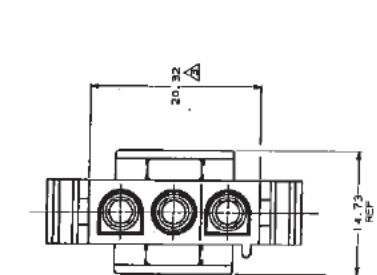
MM	IN	MM	IN
0.13	0.05	6.35	0.250
0.25	0.10	7.62	0.300
0.38	0.15	8.13	0.320
0.51	0.20	12.7	0.500
0.64	0.25	15.24	0.600
0.76	0.30	19.05	0.750
1.02	0.40	25.4	1.000
1.27	0.50	31.75	1.250
1.52	0.60	38.1	1.500
1.78	0.70	44.45	1.750
2.03	0.80	50.8	2.000
2.29	0.90	57.15	2.250
2.54	1.00	63.5	2.500
2.79	1.10	69.85	2.750
3.05	1.20	76.2	3.000
3.30	1.30	82.55	3.250
3.55	1.40	88.9	3.500
3.81	1.50	95.25	3.750
4.06	1.60	101.6	4.000
4.32	1.70	107.95	4.250
4.57	1.80	114.3	4.500
4.83	1.90	120.65	4.750
5.08	2.00	127.0	5.000
5.33	2.10	133.35	5.250
5.59	2.20	139.7	5.500
5.84	2.30	146.05	5.750
6.10	2.40	152.4	6.000
6.35	2.50	158.75	6.250
6.60	2.60	165.1	6.500
6.86	2.70	171.45	6.750
7.11	2.80	177.8	7.000
7.37	2.90	184.15	7.250
7.62	3.00	190.5	7.500
7.87	3.10	196.85	7.750
8.13	3.20	203.2	8.000
8.38	3.30	209.55	8.250
8.63	3.40	215.9	8.500
8.89	3.50	222.25	8.750
9.14	3.60	228.6	9.000
9.39	3.70	234.95	9.250
9.65	3.80	241.3	9.500
9.90	3.90	247.65	9.750
10.16	4.00	254.0	10.000
10.41	4.10	260.35	10.250
10.67	4.20	266.7	10.500
10.92	4.30	273.05	10.750
11.18	4.40	279.4	11.000
11.43	4.50	285.75	11.250
11.68	4.60	292.1	11.500
11.94	4.70	298.45	11.750
12.19	4.80	304.8	12.000
12.44	4.90	311.15	12.250
12.70	5.00	317.5	12.500
12.95	5.10	323.85	12.750
13.20	5.20	330.2	13.000
13.46	5.30	336.55	13.250
13.71	5.40	342.9	13.500
13.96	5.50	349.25	13.750
14.22	5.60	355.6	14.000
14.47	5.70	361.95	14.250
14.72	5.80	368.3	14.500
14.98	5.90	374.65	14.750
15.23	6.00	381.0	15.000
15.48	6.10	387.35	15.250
15.74	6.20	393.7	15.500
15.99	6.30	400.05	15.750
16.24	6.40	406.4	16.000
16.50	6.50	412.75	16.250
16.75	6.60	419.1	16.500
17.00	6.70	425.45	16.750
17.26	6.80	431.8	17.000
17.51	6.90	438.15	17.250
17.76	7.00	444.5	17.500
18.02	7.10	450.85	17.750
18.27	7.20	457.2	18.000
18.52	7.30	463.55	18.250
18.78	7.40	469.9	18.500
19.03	7.50	476.25	18.750
19.28	7.60	482.6	19.000
19.53	7.70	488.95	19.250
19.79	7.80	495.3	19.500
20.04	7.90	501.65	19.750
20.29	8.00	508.0	20.000
20.54	8.10	514.35	20.250
20.80	8.20	520.7	20.500
21.05	8.30	527.05	20.750
21.30	8.40	533.4	21.000
21.55	8.50	539.75	21.250
21.81	8.60	546.1	21.500
22.06	8.70	552.45	21.750
22.31	8.80	558.8	22.000
22.56	8.90	565.15	22.250
22.82	9.00	571.5	22.500
23.07	9.10	577.85	22.750
23.32	9.20	584.2	23.000
23.57	9.30	590.55	23.250
23.83	9.40	596.9	23.500
24.08	9.50	603.25	23.750
24.33	9.60	609.6	24.000
24.58	9.70	615.95	24.250
24.84	9.80	622.3	24.500
25.09	9.90	628.65	24.750
25.34	10.00	635.0	25.000



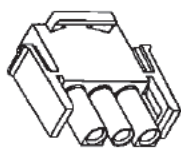
DESIGNATION	794900-1	
PART NO	794900-1	
COLOR	BLACK	
AMP	AMP	
APPROVAL	APPROVAL	
DATE	DATE	
REVISIONS	REVISIONS	
UNIVERSAL MATE-N-LOCK™ CAP. 3 CIRCUIT		
COPY NO.	00779	C-794900
SCALE	4:1	
SHEET NO.	1 OF 1	DRAWING NO.

CUSTOMER DRAWING

1. MATE WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ CAP OR HEADER.
 2. SMALL NICKS ARE PERMITTED ON THE CIRCUIT LEADERS WHICH COULD INCREASE THE INITIAL SURGE IN CURRENT UP TO 4.4 NEPTONS (11.0 LB) AND INDICATED BY DIMENSION C. OTHER SHALL INCREASE THIS FORCE BY OVER 2.2 NEPTONS (5.5 LB).
- ▲ DIMENSION INDICATED IS AS MOLOD. ADDITIONAL DIMENSIONS TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
 ▲ FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, NO RIBS OR SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL.
 ▲ UNDERPARTS RECOGNIZED COMPONENT LOGO AND USA CERTIFICATION LOGO TO BE LOCATED ONE EACH ON SIDE OF HOUSING.



DETAIL A
OPTIONAL CONSTRUCTION



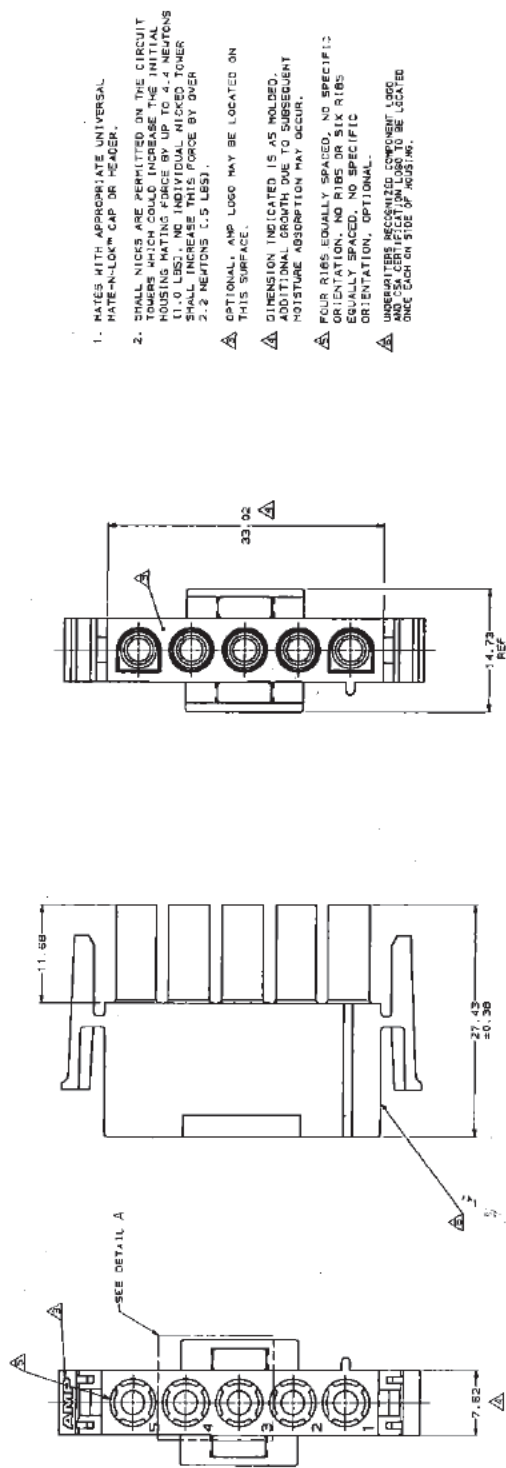
3-DIMENSIONAL MODEL
NYS

IN	MM
27.43	1.080
20.32	.800
14.29	.560
7.62	.300
6.35	.250
6.35	.250
6.35	.250

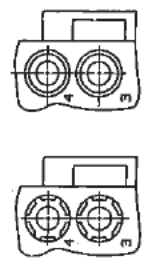
AMP
 UNIVERSAL MATE-N-LOK™
 PLUGKIT
 A1 00775 0794901
 PART NUMBER
 784901-1
 BLACK COLOR

METRIC

AMP is a registered trademark of AMP Corporation.
 UNIVERSAL MATE-N-LOK is a registered trademark of AMP Corporation.
 PLUGKIT is a registered trademark of AMP Corporation.
 A1 00775 0794901 is a registered trademark of AMP Corporation.



1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOCK™ CAP OR HEADER.
 2. SMALL NOTCHES ARE PERMITTED ON THE CIRCUIT TOWERS WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 4.4 NEWTONS (1.0 LBS). NO INDIVIDUAL NOTCHED TOWER SHALL INCREASE THIS FORCE BY OVER 2.8 NEWTONS (0.9 LBS).
- ▲ OPTIONAL AMP LOGO MAY BE LOCATED ON THIS SURFACE.
 - ▲ DIMENSION INDICATED IS AS MOLDED. DIMENSIONS MAY VARY TO SUBSEQUENT PRODUCTION ABSORPTION MAY OCCUR.
 - ▲ FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL.
 - ▲ UNDERPARTS RECOMMENDED COMPONENT LOGO OR PART NUMBER SHOULD BE LOCATED ON EACH SIDE OF HOUSING.



DETAIL A
OPTIONAL CONSTRUCTIONS

AMP		PART NUMBER	
AMP		AMP	
S CIRCUIT		UNIVERSAL MATE-N-LOCK™	
A1100779		C-794813	
SHEET 1 OF 1		SHEET 1 OF 1	

CONSTRUCTION TABLE	IN	MM
35.02	1.300	
27.43	1.080	
11.68	0.460	
7.62	0.300	
0.38	0.015	
0.13	0.005	
0.08	0.003	



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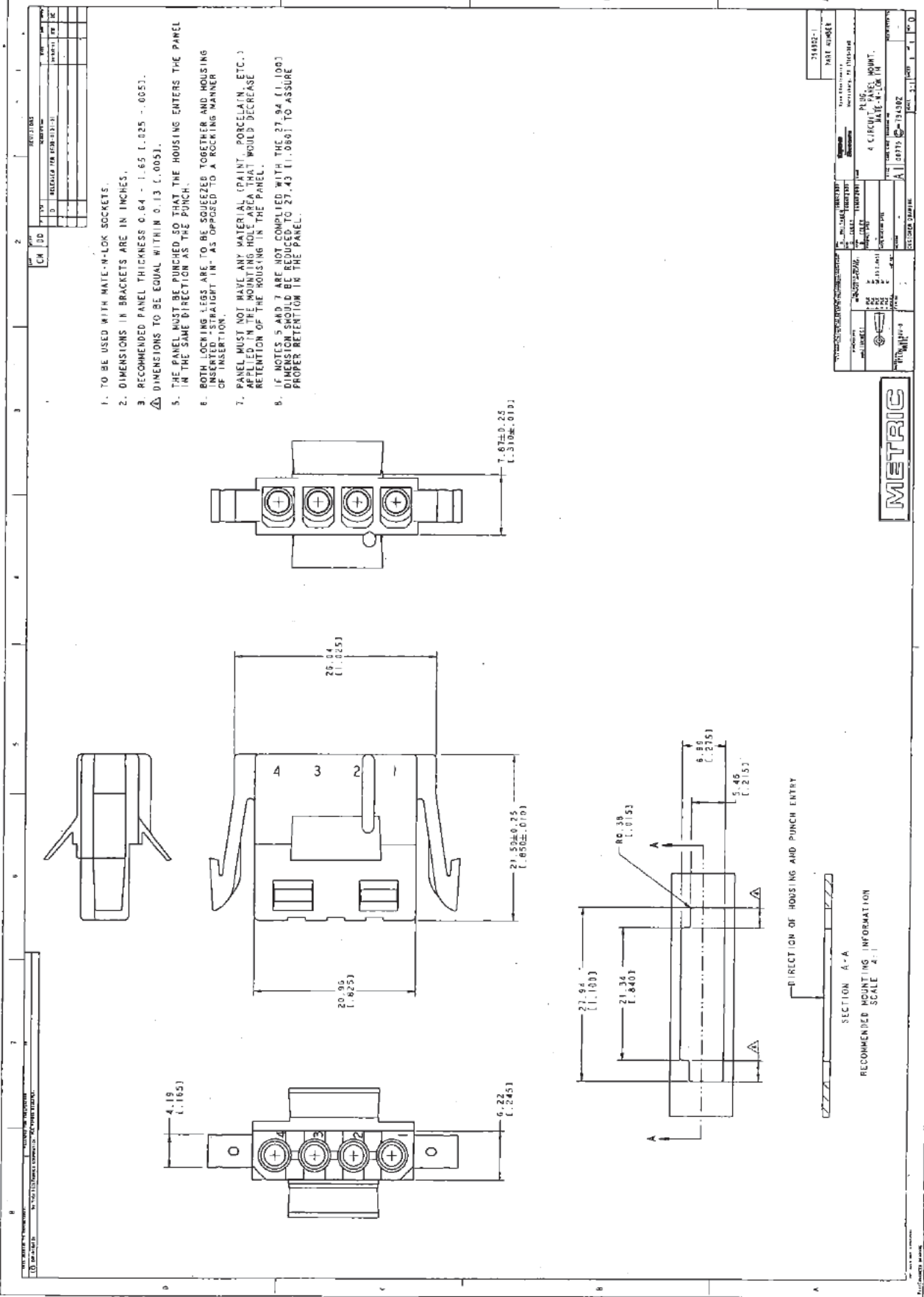
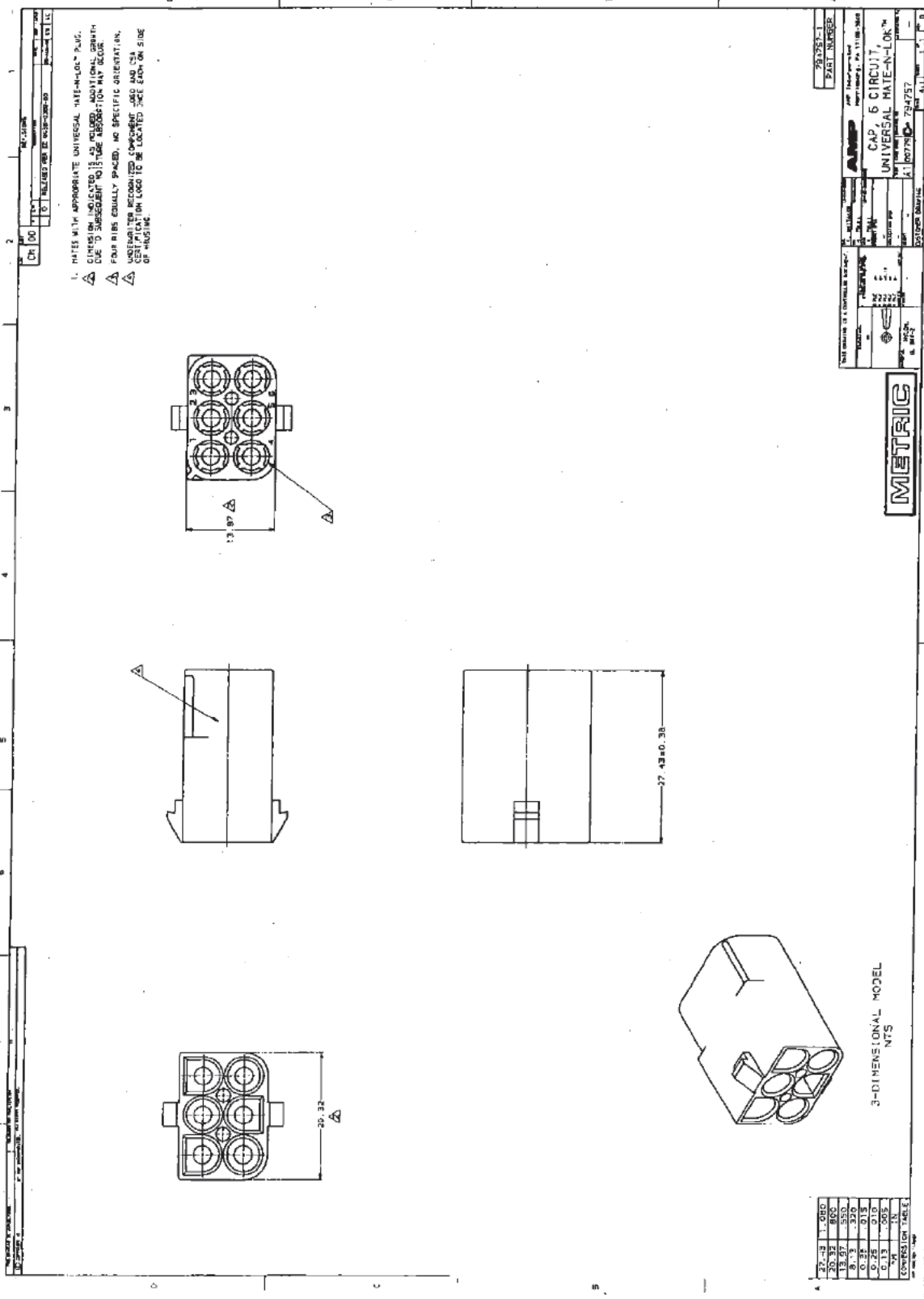


FIG 125
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



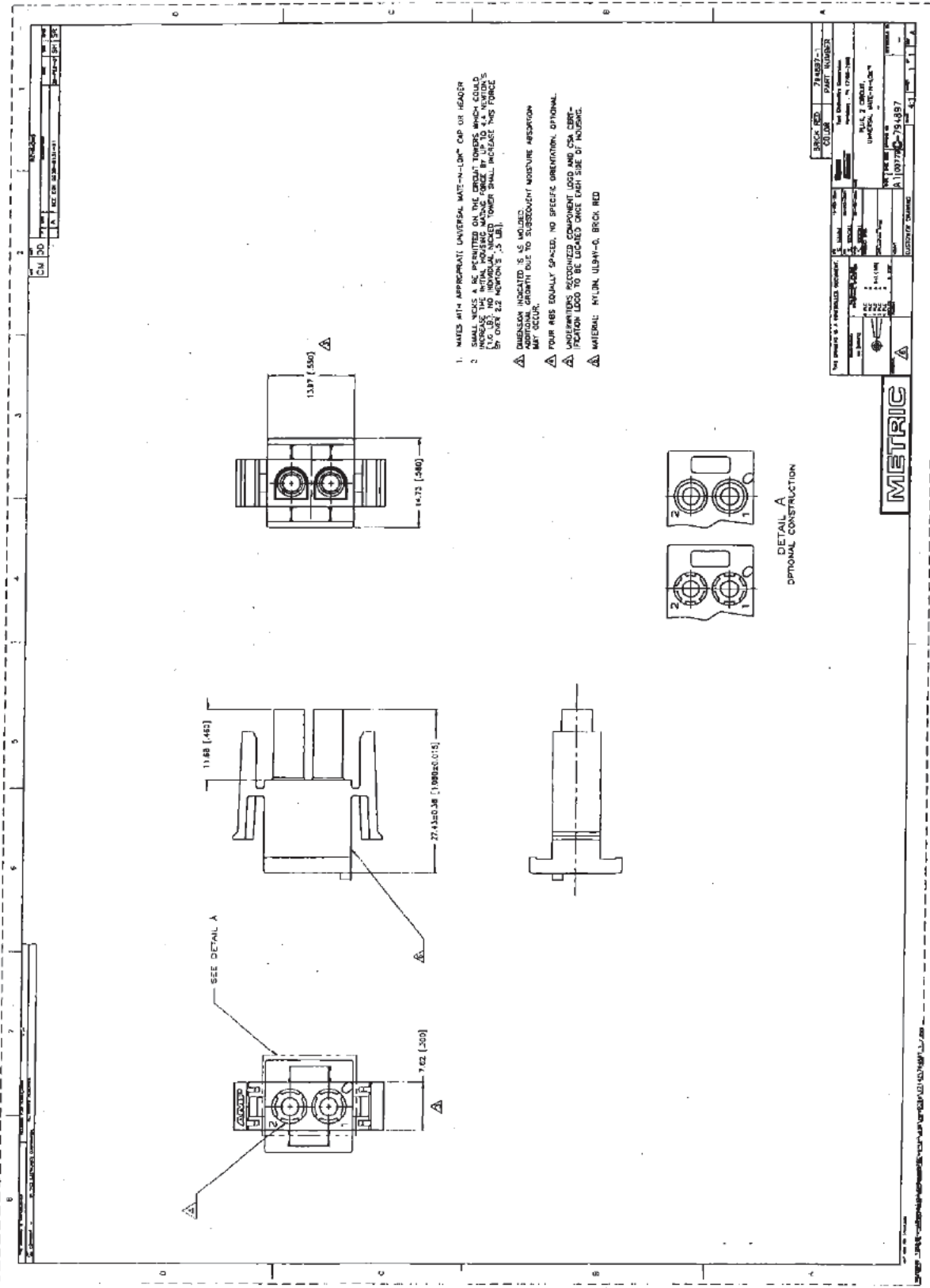
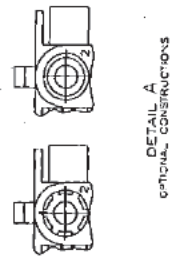
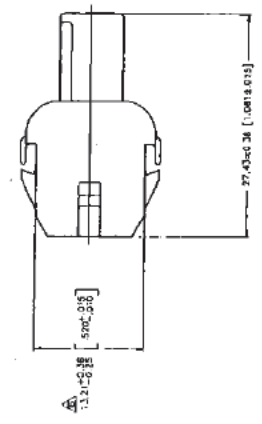
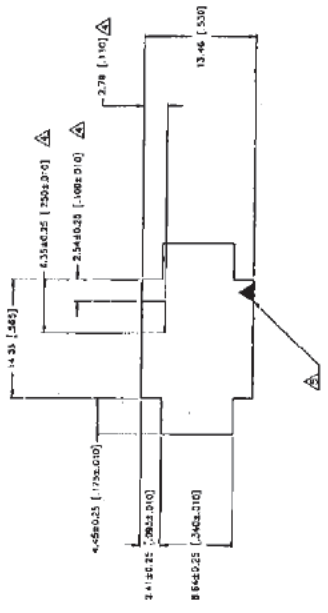
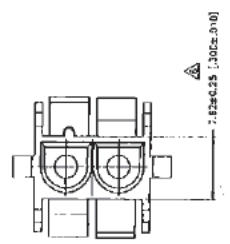
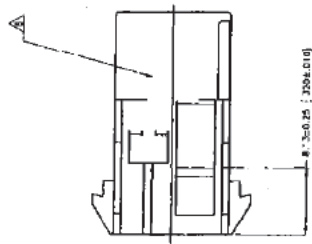
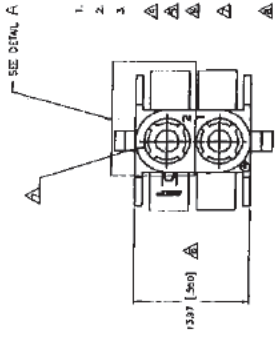


FIG 127
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

REV	DATE	DESCRIPTION
1	08-01-21	ISSUE FOR CONSTRUCTION
2	08-01-21	ISSUE FOR CONSTRUCTION

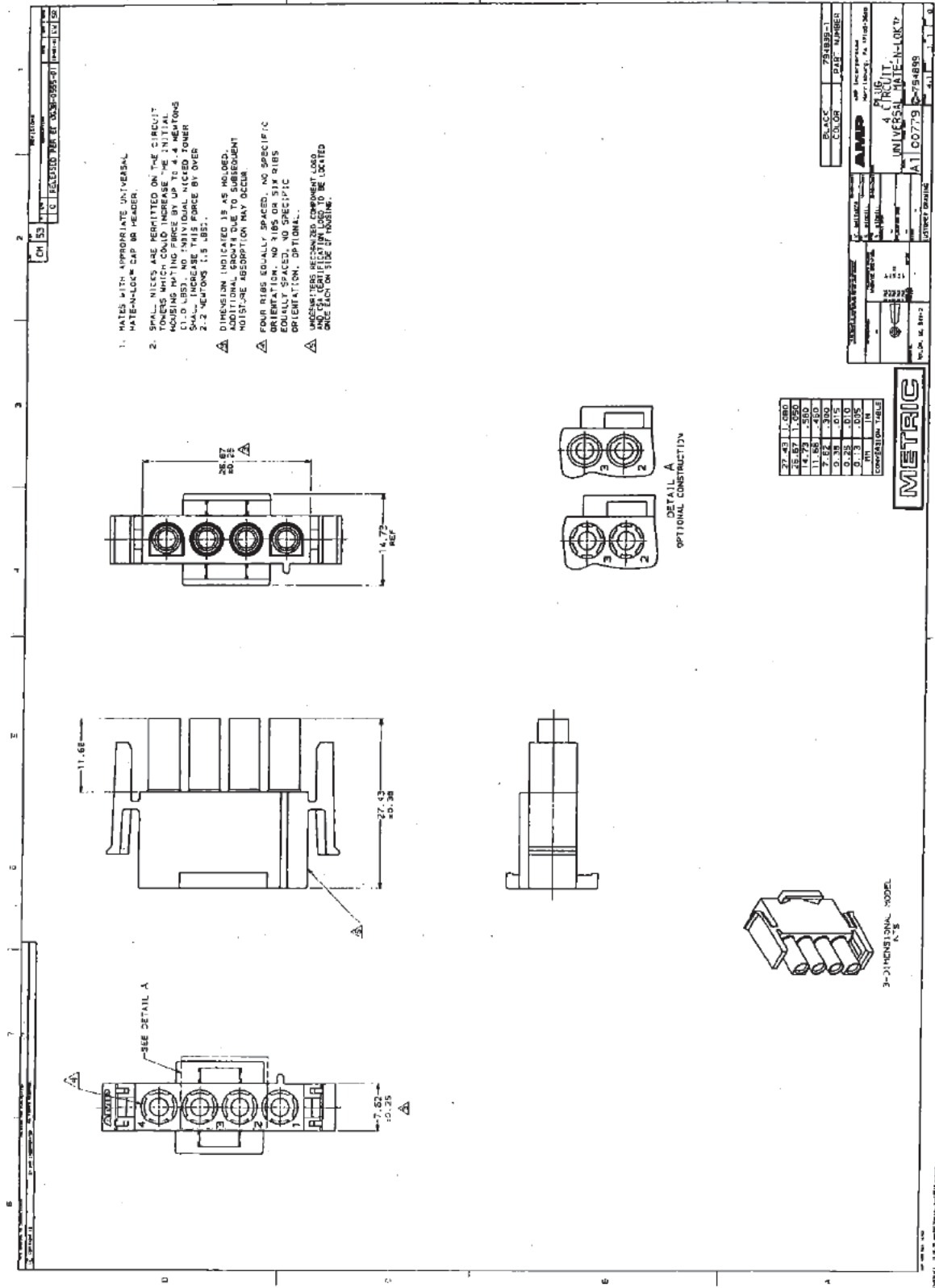
1. FITS WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ PLUG
 2. RECOMMENDED PANEL THICKNESS 0.78"-2.28mm (0.00"-0.09")
 3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTRIES THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- OPTIONAL FOR ACTING HOUSING IN PANEL.
- △ CIRCUIT NUMBER 1 LOCATION
- △ DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
- △ FOUR RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. NO OPTIONAL SIX RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION.
- △ IMPROPERLY RECOGNIZED COMPONENT LOADS AND USE DURING FLATION LOADS TO BE SHARED OVER EACH OF SIDE OF HOUSING.
- △ MATERIAL: Nylon 66/4V-0, BRICK RED



BRICK RED	Z9482E-1
COLOR	PART NUMBER

UNIVERSAL MATE-N-LOK™

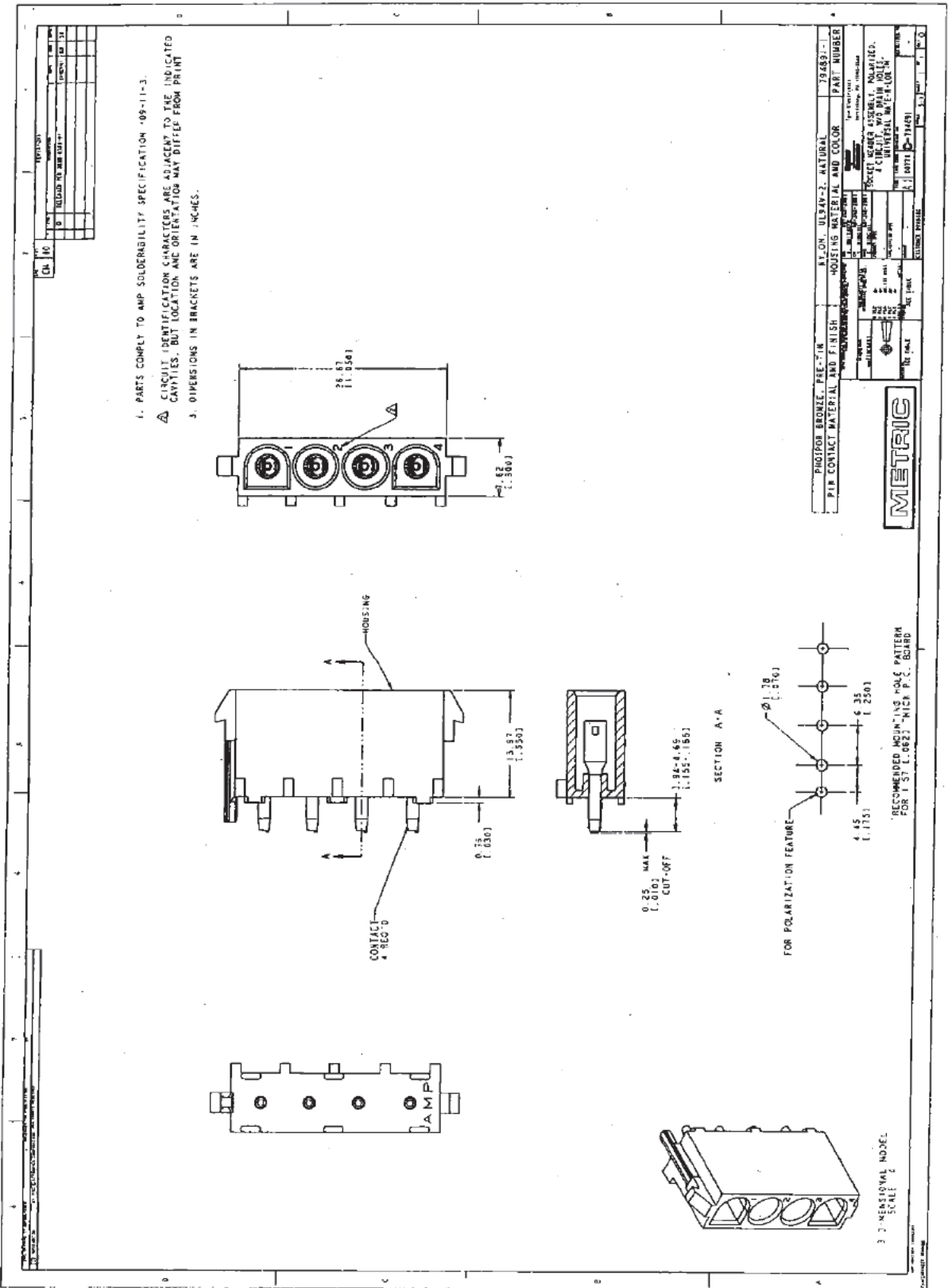




METRIC

3-D DIMENSIONAL MODEL A-75

UNIVERSAL MATE-N-LOCK
A-75
METRIC
A1100779 794899



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.5" SINGLE-LEVEL PCB BOARD

3-D ISOMETRIC MODEL
SCALE 1:1

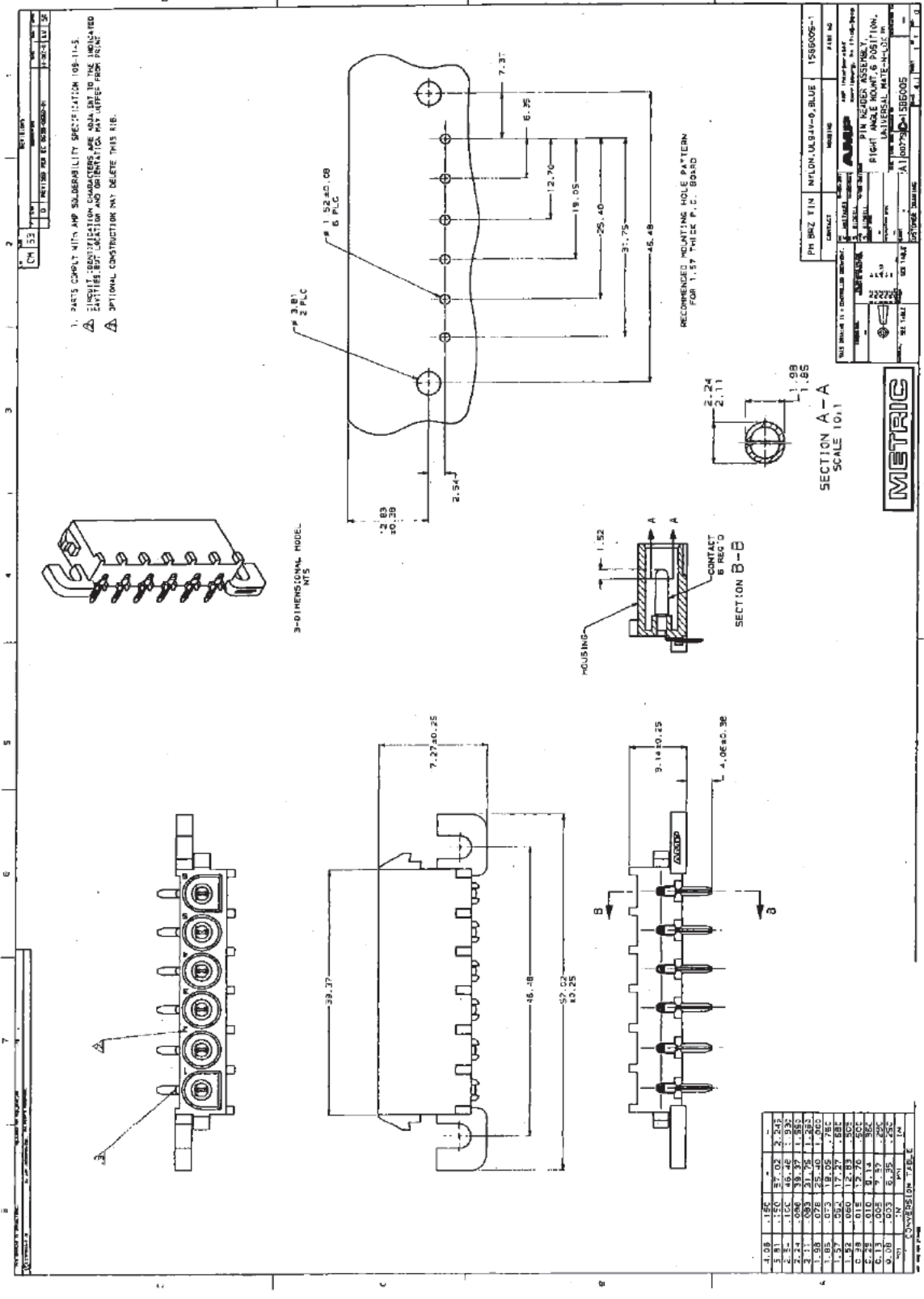


FIG 131
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

DESCRIPTION

General: This certification covers the following: (EXTRACTED FROM LR 7189-77 (SUB REPORT LR 16455-91))

1. The addition of an option of polarized standard tail to pin header assemblies with 2, 3, 4, 5, 6 and 8 in-line circuits; and 6, 9, 12 and 15 multiple row circuits shown in Page 8 of AMP catalogue 73-104 (revised 9-84).
2. The addition of an option of polarized standard tail to socket header assemblies with 2, 3, 4 and 5 circuits; and 6, 9, 12, 15 circuits as shown in Page 10 of AMP catalogue 73-104 (revised 9-84).
3. The addition of socket contacts as an alternate for the right angle header assemblies as shown in Page 9 of the AMP catalogue 73-104 (revised 9-84).
4. The addition of strain reliefs catalogue numbers 643313-1 and 643313-2, for the Type A with 6 circuit strain relief, as shown in Page 12 of AMP catalogue 73-104 (revised 9-84).
5. The addition of new part numbers, as alternate construction of (anti-wicking contacts). Pin header assemblies as follows:

<u>FIG</u>	<u>New Part Number</u>	<u>Original Part Number</u>	<u>Modification</u>
133	641983	350209	Anti-wicking contacts
134	641984	350210	Anti-wicking contacts
135	641985	350211	Anti-wicking contacts
136	641986	380999	Anti-wicking contacts
137	641987	350212	Anti-wicking contacts
138	641988	380991	Anti-wicking contacts
139	641989	350213	Anti-wicking contacts
140	641990	350214	Anti-wicking contacts
142	643031	350810	Panel latches removed
143	643032	480467	Mating ears removed
144	643034	643034	Incorporates feed lugs
145	770000	350424	Anti-wicking contacts
146	770002	350780	Incorporates lead-in ramp
147	770112	350423	Anti-wicking contacts

The drawings of the pin header assemblies are attached to this report. The pin (anti-wicking contact), used on the pin header assemblies is attached as Fig 141.

P/N 641982

REV	DATE	APPROVED
1	11/11/52	WALSH
2	11/11/52	WALSH
3	11/11/52	WALSH
4	11/11/52	WALSH
5	11/11/52	WALSH
6	11/11/52	WALSH
7	11/11/52	WALSH
8	11/11/52	WALSH
9	11/11/52	WALSH
10	11/11/52	WALSH

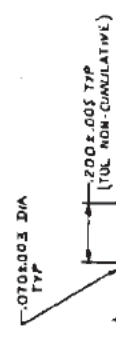
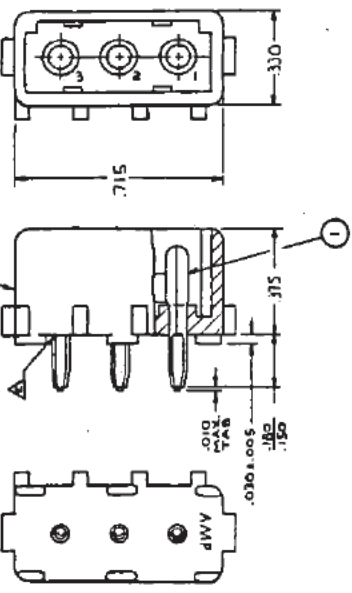
REV	DESCRIPTION
1	RELEASE DRAWING PER M-5531
2	ADDED NOTE 2
3	HOUSING - ASS-50 REF M-7287
4	SEV. PER M-1335
5	2-1-52 PER M-1335
6	6-1-52 PER M-1335
7	6-1-52 PER M-1335
8	6-1-52 PER M-1335
9	6-1-52 PER M-1335
10	6-1-52 PER M-1335

REV	DESCRIPTION
1	RELEASE DRAWING PER M-5531
2	ADDED NOTE 2
3	HOUSING - ASS-50 REF M-7287
4	SEV. PER M-1335
5	2-1-52 PER M-1335
6	6-1-52 PER M-1335
7	6-1-52 PER M-1335
8	6-1-52 PER M-1335
9	6-1-52 PER M-1335
10	6-1-52 PER M-1335

REV	DESCRIPTION
1	RELEASE DRAWING PER M-5531
2	ADDED NOTE 2
3	HOUSING - ASS-50 REF M-7287
4	SEV. PER M-1335
5	2-1-52 PER M-1335
6	6-1-52 PER M-1335
7	6-1-52 PER M-1335
8	6-1-52 PER M-1335
9	6-1-52 PER M-1335
10	6-1-52 PER M-1335

REV	DESCRIPTION
1	RELEASE DRAWING PER M-5531
2	ADDED NOTE 2
3	HOUSING - ASS-50 REF M-7287
4	SEV. PER M-1335
5	2-1-52 PER M-1335
6	6-1-52 PER M-1335
7	6-1-52 PER M-1335
8	6-1-52 PER M-1335
9	6-1-52 PER M-1335
10	6-1-52 PER M-1335

REV	DESCRIPTION
1	RELEASE DRAWING PER M-5531
2	ADDED NOTE 2
3	HOUSING - ASS-50 REF M-7287
4	SEV. PER M-1335
5	2-1-52 PER M-1335
6	6-1-52 PER M-1335
7	6-1-52 PER M-1335
8	6-1-52 PER M-1335
9	6-1-52 PER M-1335
10	6-1-52 PER M-1335



RECOMMENDED LAYOUT FOR
.062 THICK PC BOARD

LR 164196-98 FIG 2

1 PARTS COMPLY WITH AMP SOLDERABILITY SPEC 109-11-3.
△ SKIVED PLASTIC PERMISSIBLE IN THIS AREA.

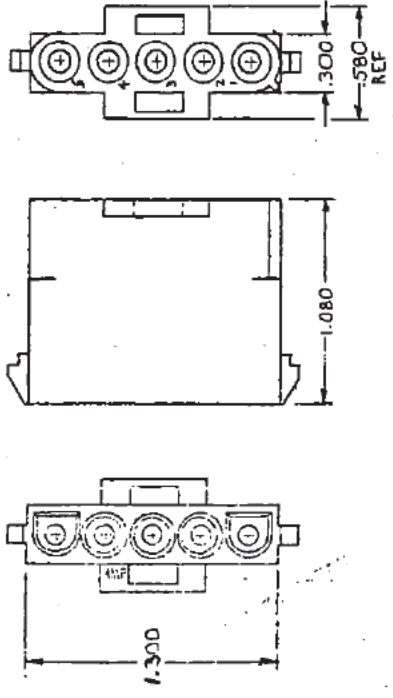
BLUE	NYLON 94V-2	1	HOUSING	6-641984-1
PRE-TIN	ODI CU ALY	3	CONTACT	1
BLACK	NYLON 94V-2	1	HOUSING	2
PRE-TIN	ODI CU ALY	3	CONTACT	3
RED	NYLON 94V-2	1	HOUSING	4
PRE-TIN	ODI CU ALY	3	CONTACT	5
NATURAL	NYLON 94V-2	1	HOUSING	6
PRE-TIN	ODI CU ALY	3	CONTACT	7
FINISH	MATERIAL	NO. PER ASSEMBLY	ITEM NO	PART NO

CONTRACT NO	AMP INCORPORATED
DR M Feller	Northbrook, Pa. 17406
CNN	
APPD	
DIGR APPD	
OTHER APPD	

NAME	PIN HEADER ASSEMBLY
COMMERCIAL MATE	N-LOK, 3 CIRCUIT
SIZE	PICM NO
C	00779
SCALE	4-1
DRAWING NO	641984
SHEET	

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 RESERVED. AMP PRODUCTS MAY BE COVERED BY U.S. AND FOREIGN PATENTS AND/OR PATENTS PENDING.

REV. NO.	DATE	DESCRIPTION
0		REVISIONS
A		REV. 01 - SPARKING PLEX MATERIAL
B		REV. 02 - DIMENSIONS AS SHOWN
C		REV. 03 - DIMENSIONS PER MFG. DIM.
		REV. 04 - DIMENSIONS PER MFG. DIM.
		REV. 05 - DIMENSIONS PER MFG. DIM.

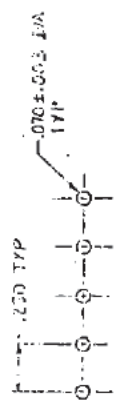
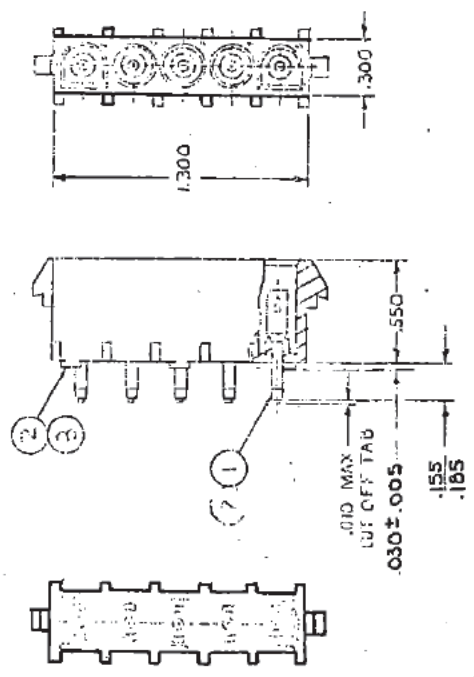


~~LR 16455-98~~
 FIG 10

UNLESS OTHERWISE SPECIFIED, DIMENSIONS SHALL BE IN INCHES.		CONTRACT NO.	
MATERIAL		AMP INCORPORATED	
SEE TABLE		HARRISBURG, PA.	
SUE TABLE		AMP CAP BRIDGE 38L	
		WHITE-N-LAY 5 1/2 1/2 3/16	
		FORM NO.	
		00779	
		643031	
		NATURAL	
		643031-2	
		SPRINKLED	
		643031-1	
		COLOR	
		MATERIAL	
		PART NO.	

CUSTOMER'S PART NO.

BY NAPP INCORPORATED, HARRISBURG, Pa.
 PR-476 MINI PWR AMP INTEGRATED PACKAGE
 (SEE ELECTRICAL DATA SHEET) P. 406



RECOMMENDED LAYOUT FOR
 PCB BOARD

- 1 PARTS COMPLY WITH AMP SOLDERABILITY SPEC. 109-11-3.
- 2 MATES WITH HOUSING 643032 USING PIN CONTACTS.

NATURAL	INCON 94V2	1	HOUSING	3	64034-2
GOLD	PHOS BRZ	5	CONTACT	1	
BRICK RED	INCON 94V-0	1	HOUSING	2	643034-1
GOLD	PHOS. BRZ	5	CONTACT	1	
FINISH	MATERIAL	NO PER ASSEMBL.	ITEM NO	PART NO	
<p>PROPERTY NO. 47033</p> <p>DATE: 10/10/68</p> <p>PROJECT HEADQUARTERS</p> <p>UNIVERSAL MACHINE PRODUCTS</p> <p>643034</p>					

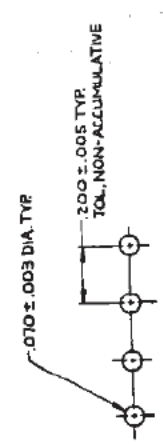
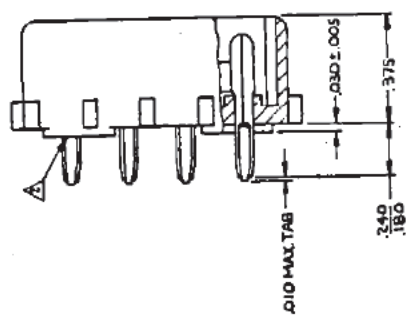
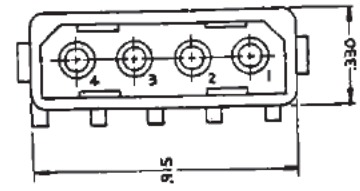
~~LR 16455-98~~
~~FIG 12~~

LOC	10-17	CN153
REV	DESCRIPTION	DATE APPROVED
1	RELEASED PER TT1B4-01	8/1/60
2		
3		

DESIGNED BY	DATE
APPROVED BY	DATE
CHECKED BY	DATE

DRAWING MADE IN THIRD ANGLE PROJECTION
 THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION
 BY THE NATIONAL ARCHIVES, COLLEGE PARK, MD. ALL INFORMATION CONTAINED
 HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE.
 DATE OF DECLASSIFICATION: 10-15-2015

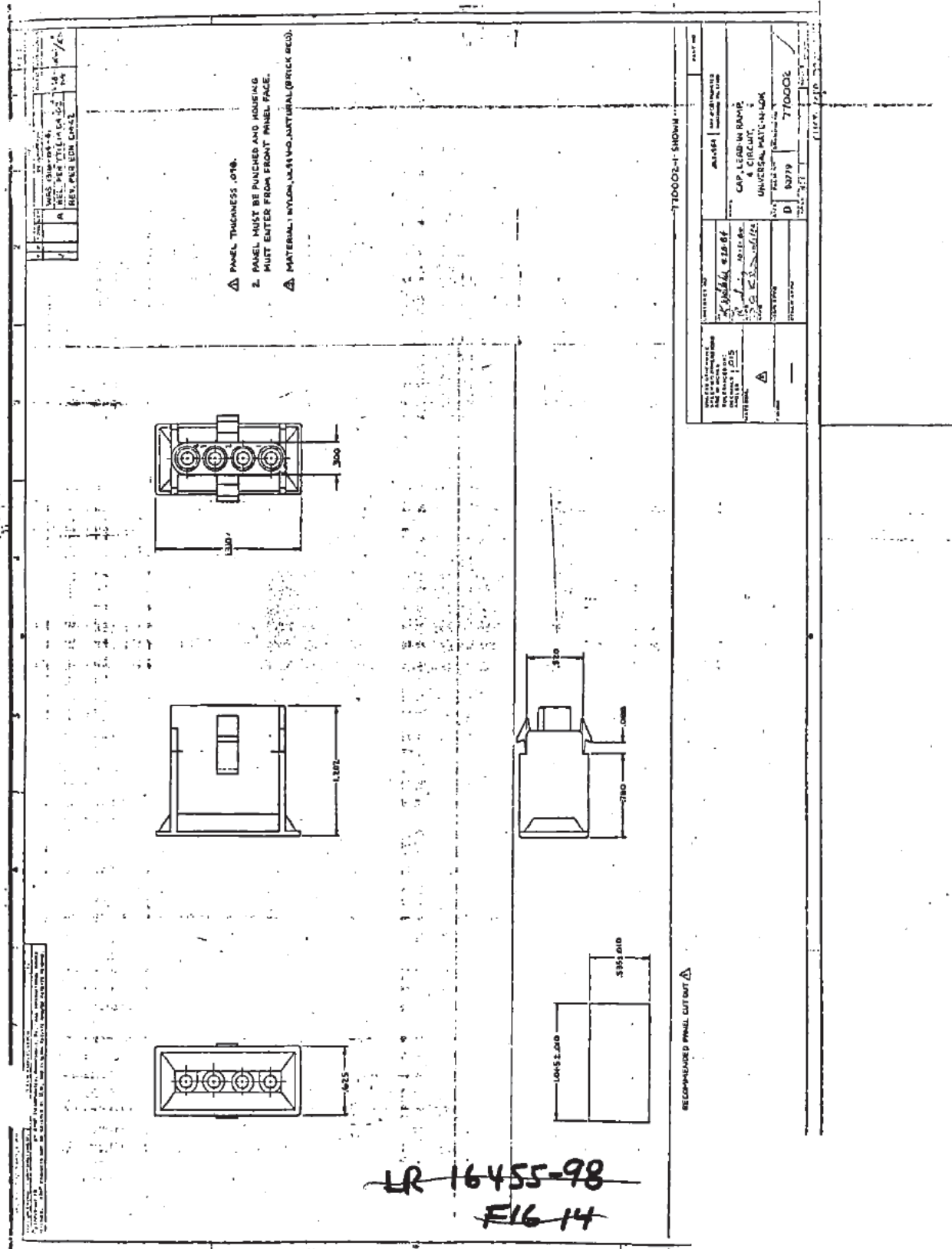
- PARTS COMPLY WITH AMP SOLDERABILITY SPEC. 107-11-3.
- SKIVED PLASTIC PERMISSIBLE IN THIS AREA.
- MATERIAL-HOUSING: NYLON UL 94V-2 (NATURAL).
PIN: .010 THK. COPPER ALLOY (SELECT GOLD).



770000-2 SHOWN

CONTRACT NO.	AMP INCORPORATED Northampton, PA 17858
NAME	PIN HEADER ASSEMBLY, 4 CIRCUIT, COMMERCIAL MATE-N-LOK
SITE	FIG. NO. 770000
SCALE	N.T.S.
USDA APPD.	00779
OTHER APPD.	

LR 16455-98
 FIG 13



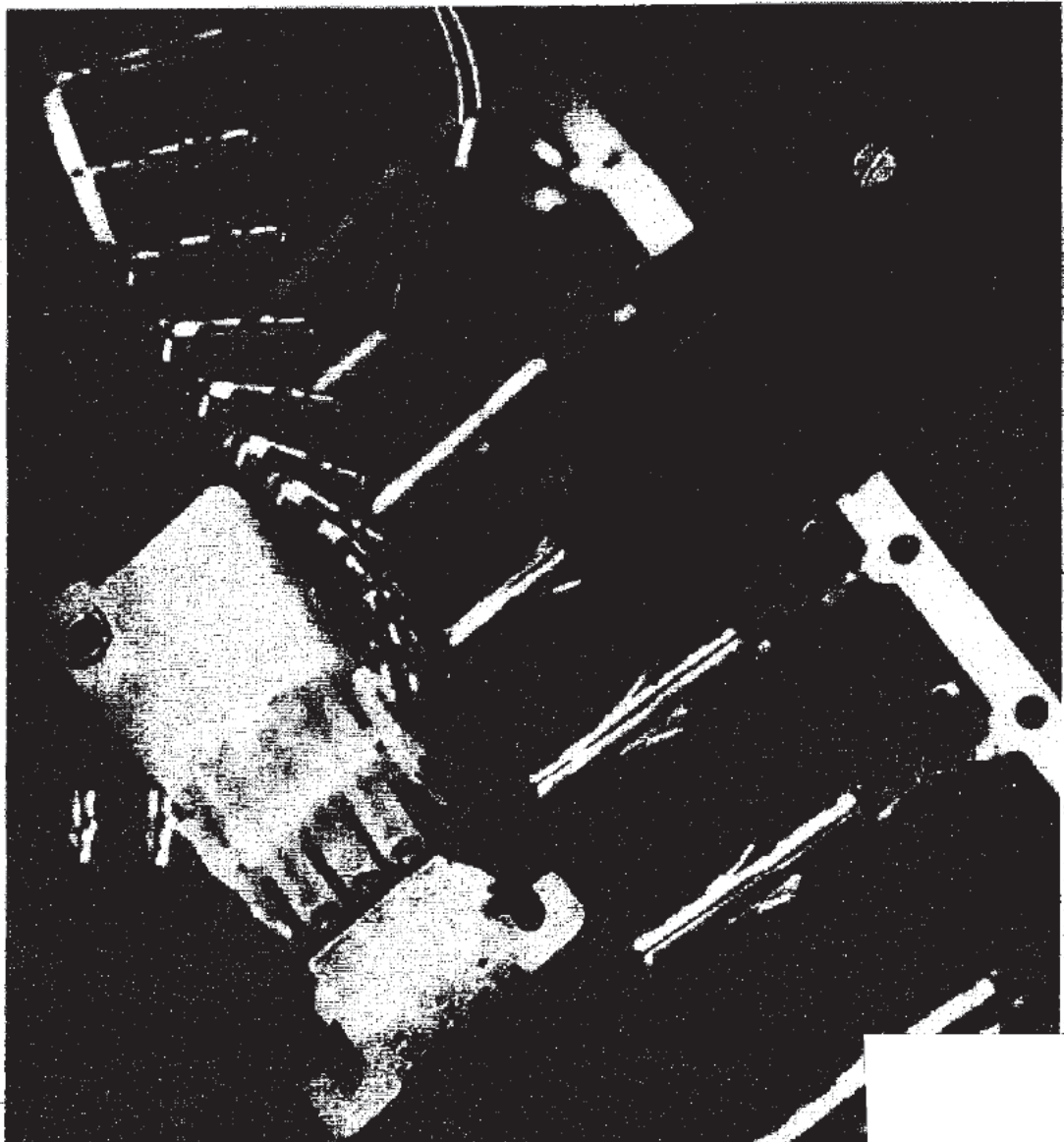
UNIVERSITY OF CALIFORNIA SCHOOL OF ARCHITECTURE 101 SHREVE DRIVE DUBLIN, CALIF. 94568 TEL: (415) 895-5151 FAX: (415) 895-5152		PROJECT NO. 770002 DATE 10/11/98 DRAWN BY J. J. JENSEN CHECKED BY J. J. JENSEN	
TITLE: PANEL CUT OUT		SHEET NO. 1	
DESIGNED BY: J. J. JENSEN		DATE: 10/11/98	
PROJECT: 770002		SHEET: 1	
DRAWING NO. 770002-1		DATE: 10/11/98	
UNIVERSITY OF CALIFORNIA SCHOOL OF ARCHITECTURE 101 SHREVE DRIVE DUBLIN, CALIF. 94568 TEL: (415) 895-5151 FAX: (415) 895-5152		UNIVERSITY OF CALIFORNIA SCHOOL OF ARCHITECTURE 101 SHREVE DRIVE DUBLIN, CALIF. 94568 TEL: (415) 895-5151 FAX: (415) 895-5152	



**Universal MATE-N-LOK
Pin and Socket
Connectors**

Wiring
73-104
Revised 9-54

~~LR 16455-98~~
~~APPENDIX A~~



AMP means productivity/Worldwide

Universal MATE-N-LOK Connectors

Introduction

AMP Universal MATE-N-LOK connectors provide a highly reliable and economic means of grouping multiple-lead connections in today's computer, computer/peripheral equipment and business machines offering worldwide application approval. AMP Universal MATE-N-LOK connectors are now finding additional application and acceptance in home entertainment, appliances, vending machines and other commercial equipment due to their reliability and shock hazard protection features. UL component recognized and CSA certified for 600 volt applications and designed to meet 380 volt VDE requirements. These connectors feature fully polarized housings to

assure proper plug-to-cap mating plus the ability of intermixing pins and sockets in either the plug or cap half to offer a high number of possible keying combinations. Also, contacts are completely enclosed when installed in the housings, thus eliminating shock hazards and allowing either connector half to have hot leads.

AMP offers this versatile family of connectors in a wide range of sizes, including 1, 2, 3, 4, 5, 6, 9, 12 and 15 circuit configurations. Both plug and cap have positive locking housings to prevent accidental disengagement when used in panel mounted applications or as free-hanging connectors. The cap itself can be mounted in a panel .030 [0.76] to .090

[2.29] thick. A family of printed circuit board headers with pin, socket or right angle configurations are offered.

Standard housings are molded from durable nylon material and come in natural color, NEMA colors are available upon request. Natural color of 94V-0 flame retardant material is brick red. Additional housing features include: numbered cavities for easy circuit identification and large rear-entry cavities to permit the termination of two wires to a contact.

The stamped and formed contacts, in pre-tinned or gold plating, are available for terminating wire sizes ranging from No. 30-10 AWG [0.05-6 mm²]. These crimp snap-in contacts feature dual locking lances for

optimum contact stability and are especially designed for low-force mating. They are easily hand loaded into the housings, requiring no orientation. Only one simple extraction tool is needed to remove both pins and sockets.

AMP furnishes the contacts in continuous strip form for automatic machine termination and in loose piece form for hand tool crimping. AMP's high-speed machines use the versatile quick-change miniature applicator for crimping both pins and sockets at volume production rates and at the lowest possible installed cost.



Table of Contents

Introduction 2
 Features and Technical Documents 3
 Performance Specifications 4
 Contact Specifications, Spill and Grounding Pins 5
 Connector Housing Specifications 6, 7
 Printed Circuit Board Pin Header Assemblies 8
 Printed Circuit Board Header Assemblies 9
 Printed Circuit Board Socket Header Assemblies 10
 Assembly Modules 11
 Strain Reliefs 12
 Printed Circuit Board Mounting Dimensions and Test Connectors 13
 Application Tooling 14, 15
 Engineering Notes 16, 17
 Numerical Index 18
 Wide World of AMP 19

Dimensioning:
 All dimensions in inches and millimeters.
 Values in brackets are metric equivalents.

Metric symbols used are:
 kg (kilogram)
 cm (centimetre)
 mm (millimetre)
 mm² (square millimetre)
 N (newton)
 C (Celsius)

Specifications subject to change.
 Consult AMP Incorporated for latest design specifications.

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**Universal MATE-N-LOK
Connectors
(Continued)**

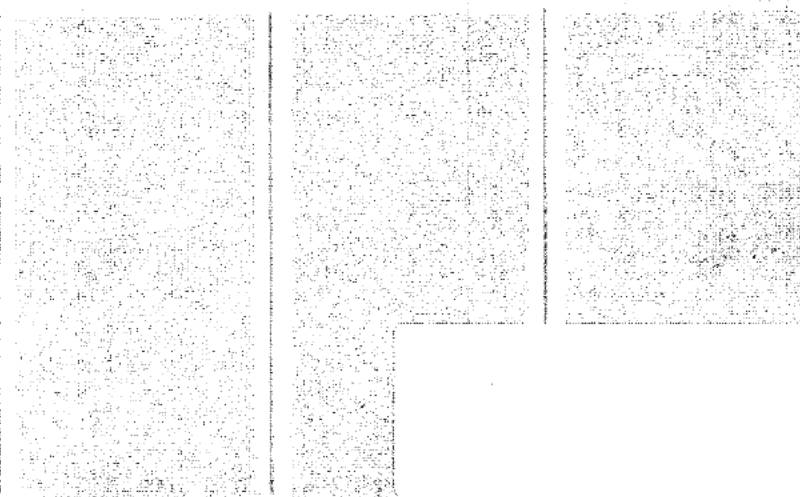
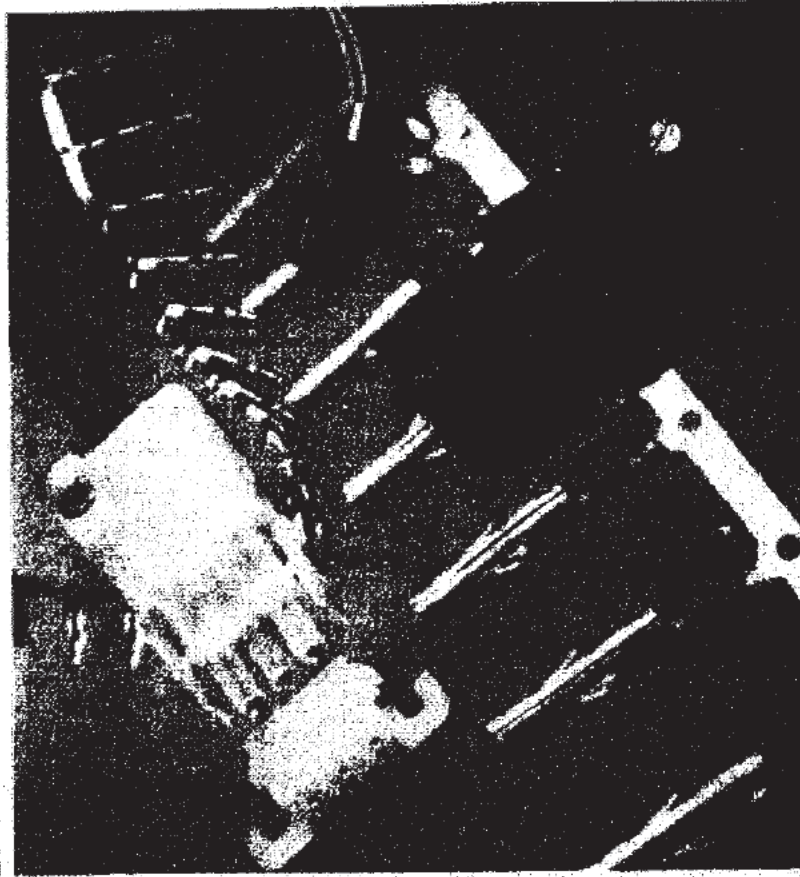
Dimensioning:
All dimensions are in inches unless noted.
Values in brackets are metric equivalents.

Features

- Indeterminate keying conditions
- Pin and sockets can be 2 (permixed in the same housing)
- Positive polarization
- Rear cavity identification
- Pin or socket contact can be hot
- Positive locking housing
- Contacts and housings have dual-wire capability
- Insulation capability to 200 (5.08) diameter
- Removable, crimp snap-in contacts
- Low contact mating force
- Dual locking spacers provide optimum contact stability
- Continuous strip contacts permit high-speed application with AMP automatic terminating machines using quick-change miniature applicators
- Panel mount or free-hanging
- Available in 94V-0 flame retardant material. Meets the material requirements of table 23.1 in UL Standard 1410 (television receivers and video products)
- Make (not break) test capability using grounding pin
- Harness to pc board capability using pin or socket header assemblies
- Contacts are on .250 (6.35) centerline spacing
- Recognized under Component Program of Underwriters Laboratories Inc. File No. E26478
- CSA Certified—File No. LR 16455
- Tested by VDE under their test report 24751-B00-26A

Technical Documents

AMP Product Specifications 100-1051 (free hanging and panel mount connectors) and 100-1053 (printed circuit board headers)



AMP INCORPORATED, HARTSEBURG, PA 17133 • PHONE: 717-564-9100 TWX: 50057-4110

Performance Specifications

Dimensioning:
Values in brackets are metric equivalents.

The Universal MATE-N-LOK performance specifications found on this page apply to free-hanging and panel mount connectors. The maximum current that can be carried by the Universal MATE-N-LOK connectors is limited by the maximum operating temperature of the housings which is 105°C (221°F) and the temperature rise of the contacts which is 30°C (54°F). There are several variables which have a direct effect on this maximum current carrying capability for a given connector and must be

considered for each application. These variables are:

Wire Size—Larger wire will carry more current since it has less internal resistance to current flow and thus it generates less heat. The wire also conducts heat away from the connector.

Connector Size—In general, the more circuits in a connector, the less current can be carried.

Ambient Temperature—The higher the ambient temperature, the less current can be carried in any given connector.

Universal MATE-N-LOK connectors also will withstand the following tests:

Thermal Shock: -55°C to +85°C

Temperature-Humidity Cycling: 10°C to 65°C at 90-95 RH

Corrosion: 48 hr. at 5% salt concentration

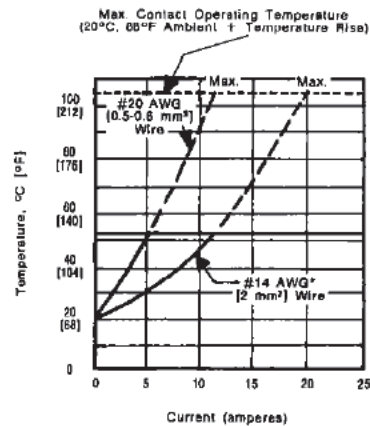
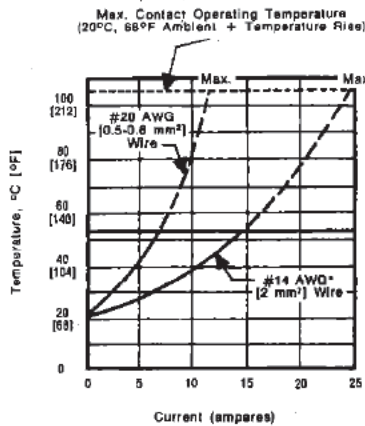
Vibration: 10-55-10 cycles per second at .06" (1.52 mm) total excursion

Physical Shock: 18 drops, 50 g sawtooth at 10 milliseconds

Durability: 50 cycles, mating and unmating

A comparison of Universal MATE-N-LOK contacts on #20 AWG [0.5-0.6 mm²] wire and #14 AWG [2 mm²] wire used in 4-circuit housings. All circuits carrying indicated current.

A comparison of Universal MATE-N-LOK contacts on #20 AWG [0.5-0.6 mm²] wire and #14 AWG [2 mm²] wire used in 12-circuit housings. All circuits carrying indicated current.



— Component Recognition 30°C (54°F) T-rise
 - - - Maximum Connector Limit, 105°C (221°F)
 *This curve was developed using phosphor bronze contacts.

— Component Recognition 30°C (54°F) T-rise
 - - - Maximum Connector Limit, 105°C (221°F)
 *This curve was developed using phosphor bronze contacts.

Termination Resistance
 (Total resistance between wire crimps of a mated pin and socket—tin-plated contacts)

Wire Size	Test Current (Amperes)	Potential Drop (Millivolts Avg.)
24	0.2	1.5
22	0.3-0.4	3
20	0.5-0.6	4.5
18	0.8-0.9	6
16	1.25-1.4	8
14	2	10

Tensile Force per Contact (Wire pullout)

Wire Size	Force (Min.)		
AWG	mm ²	lb.	N
30	0.06	2	9
28	0.08-0.09	3	13
26	0.12-0.15	6	27
24	0.2	8	36
22	0.3-0.4	14	62
20	0.5-0.6	14	82
18	0.8-0.9	30	133
16	1.25-1.4	45	200
14	2	50	222
12	3	60	267
10	5-6	70	311

Dielectric Withstanding Voltage: 5.0 KVAC or 10 KVDC between adjacent circuits

Insulation Resistance: 1000 megohms between adjacent circuits

Connector Mating:
 Solid Pin—3.0 lb. [13 N] avg. per circuit
 Split Pin—1.5 lb. [7 N] avg. per circuit

Connector Unmating:
 Solid Pin—1.5 lb. [7 N]

avg. per circuit
 Split Pin—1.0 lb. [4 N] avg. per circuit

Contact Insertion Force: 2.0 lb. [9 N] max. per contact

Contact Retention: 15 lb. [67 N] min. per contact

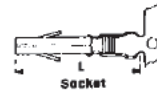
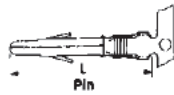
Housing Panel Retention: 75 lb. [334 N] min.

Housing Lock Strength: 35 lb. [156 N] min.

Contact Specifications

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
Charts contain dimensions in inches over millimetres.
Dimensional tolerances are $\pm .015$ [0.38] unless noted otherwise.

Universal Contacts—Pin and sockets can be used in either plug or cap housings (Pin Diameter .084 [2.13])



Wire Size Range AWG	Ins. Dia. mm ²	Stock Thickness Range	L Dim.		Material & Finish	Strip Form Contact No.		Loose Piece Contact No.		Miniature Applicator Part No.†	Hand Tool Part No.	
			Pin	Socket		Pin	Socket	Pin	Socket			
30-26	0.05-0.15	.032-.057 0.81-1.45	.012 0.3	.790 20.07	.760 19.3	Brass, Pre-tin	350824-1	350925-1	350690-1	350689-1*	466616-2	—
						Brass, Gold	350561-1	350570-1*	350690-1	350689-1*		
						Brass, Select Gold	350561-2	350570-2*	350690-2	350689-2*		
24-18	0.2-0.9	.040-.100 1.02-2.54	.012 0.3	.790 20.07	.760 19.3	Phos. Brz., Pre-tin	350581-7	350570-7*	350690-7	350689-7*	466320-1 466320-2	90300-1
						Phos. Brz., Select Gold	350581-7	350570-7*	350690-7	350689-7*		
20-14	0.5-2	.060-.130 1.52-3.3	.012 0.3	.790 20.07	.760 19.3	Brass, Pre-tin	350218-1	350536-1	350547-1	350550-1	687763-1 687763-2	90296-1
						Brass, Gold	350218-2	350536-2	350547-2	350550-2		
						Brass, Select Gold	350218-7	350536-7	350547-7	350550-7		
						Phos. Brz., Pre-tin	350218-3	350536-3	350547-3	350550-3		
						Phos. Brz., Select Gold	350218-6	350536-6	350547-6	350550-6		
						Brass, Pre-tin	350538-1	350537-1	350552-1	350551-1		
						Brass, Gold	350538-2	350537-2	350552-2	350551-2		
						Brass, Select Gold	350538-7	350537-7	350552-7	350551-7	687926-1 687926-2	90298-1** 90299-1**
						Phos. Brz., Pre-tin	350538-3	350537-3	350552-3	350551-3		
						Phos. Brz., Select Gold	350538-6	350537-6	350552-6	350551-6		
						Brass, Pre-tin	350873-1	350874-1	—	—		
						Brass, Gold	350873-2	350874-2	—	—	466588-1 466588-2	A
						Brass, Select Gold	350873-7	350874-7	—	—		
						Phos. Brz., Pre-tin	350873-3	350874-3	350918-3	350919-3		
						Phos. Brz., Select Gold	350873-6	350874-6	—	—		
18-14†	0.6-2	.130-.200 3.3-5.08	.012 0.3	.810 20.57	.780 19.81	Phos. Brz., Pre-tin	350822-3	350923-3	640309-3	640310-3	466597-1 466597-2	69710-1**
						Phos. Brz., Select Gold	350922-6	350923-6	640309-6	640310-6		
						Phos. Brz., Gold	350922-4	350923-4	—	—		

* Socket Contact—010 [0.25] stock thickness.
** Hand Tool No. 90298-1 for wire size 20-18 AWG [0.5-0.9 mm²]. Hand Tool No. 90299-1 for wire size 10-14 AWG [1.25-2 mm²]. Hand Tool No. 69710-1 use die set No. 90367-1.
*** No insulation barrel on this contact. Insulation max. dia. limited by housing.
† Has larger wire barrel. Recommended for predominant use of #14 AWG [2 mm²].
Notes: 1. Phos. bronze should be used in high temperature/humidity cycling applications.
2. Stripper/Crimper Applicators for Jacketed Cable also available, contact AMP Incorporated, Harrisburg, PA 17105.
▲ Contact AMP Incorporated, Harrisburg, PA for recommended hand tool.

Split Pins—Can be used in either plug or cap housings



Wire Size Range AWG	Ins. Dia. mm ²	Stock Thickness	L Dim.	Material & Finish	Contact Part No.		Miniature Applicator Part No.†	Hand Tool Part No.	
					Strip Form	Loose Piece			
24-18	0.2-0.9	.040-.100 1.02-2.54	.012 0.3	.790 20.07	Brass, Pre-tin	350699-1	350706-1	466320-1	90300-1
					Brass, Gold	350699-2	350706-2	466320-1	90300-1
					Brass, Select Gold	350699-7	350706-7	466320-1	90300-1
20-14	0.5-2	.060-.130 1.52-3.3	.012 0.3	.790 20.07	Brass, Pre-tin	350687-1	350705-1	687763-1 687763-2	90296-1
					Brass, Gold	350687-2	350705-2	687763-1 687763-2	90296-1
					Brass, Select Gold	350687-7	350705-7	687763-1 687763-2	90298-1** 90299-1**
20-14	0.5-2	.130-.200 3.3-5.08	.012 0.3	.810 20.57	Brass, Pre-tin	350700-1	350707-1	687926-1 687926-2	90298-1** 90299-1**
					Brass, Gold	350700-2	350707-2	687926-1 687926-2	90298-1** 90299-1**
					Brass, Select Gold	350700-7	350707-7	687926-1 687926-2	90298-1** 90299-1**

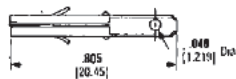
AMP recommends split pins be used in housings having 8, 9, 12 and 15 circuits to reduce mating force.
Hand Tool No. 90298-1 for wire size 20-18 AWG [0.5-0.9 mm²]. Hand Tool No. 90299-1 for wire size 16-14 AWG [1.25-2 mm²].

Grounding Pin (.100 [2.54] longer)
—Can be used in either plug or cap housings



Wire Size Range AWG	Ins. Dia. mm ²	Stock Thickness	L Dim.	Material & Finish	Contact Part No.		Miniature Applicator Part No.†	Hand Tool Part No.	
					Strip Form	Loose Piece			
20-14	0.5-2	.060-.130 1.52-3.3	.012 0.3	.890 22.61	Brass, Pre-tin	350854-1	350869-1	687763-1 687763-2	90296-1
					Phos. Brz., Pre-tin	350854-3	—	687763-1 687763-2	90296-1

Programmable Connector Contact
—Socket with 110 Series Special FASTON Tab



Material: .012 [0.3] Brass
Part No. 350877-7 (Select Gold) and 350877-1 (Pre-tin)

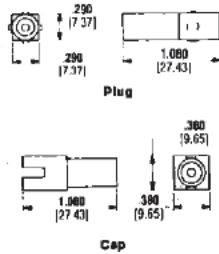
Mates with 110 Series FASTON Receptacle Part No. 350871-1 (strip).
Fits any plug or cap housing.
Allows simple field wiring or wiring changes.

† Miniature Applicator Part No. with -1 is for a "T" terminating unit used in automatic machines; -2 is for a "K" AMP-O-ELECTRIC bench machine. Stripper/Crimper Applicators for Jacketed Cable also available, contact AMP Incorporated, Harrisburg, PA 17105.

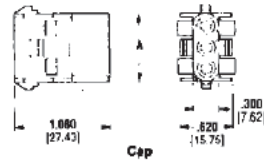
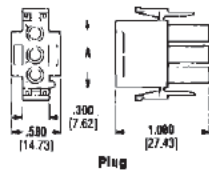
Connector Housing Specifications

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
Charts contain dimensions in inches over millimetres.
Dimensional tolerances are .015 (0.38) unless noted otherwise.

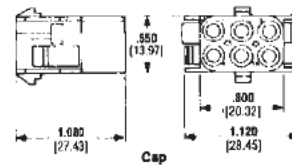
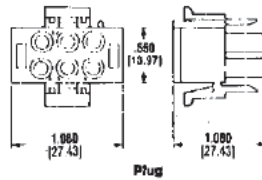
1 Circuit Free-Hanging



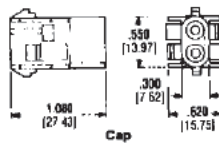
3, 4, 5, 6 and 8 Circuit



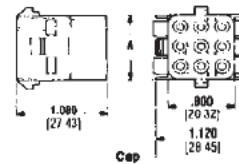
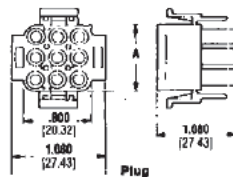
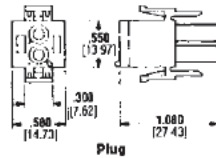
6 Circuit



2 Circuit



9, 12 and 15 Circuit



NOTES:
1. 94V-2 material part numbers listed are for natural nylon color (NEMA colors available upon request).
2. 94V-0 material is brick red color only.
3. Contacts are on .250 [6.35] center-line spacing.

No. of Circuits	A Dim.	Housing Part Numbers			
		Plug		Cap	
		94V-2	94V-0	94V-2	94V-0
1	-	1-350867-0	350865-1	1-350868-0	350866-1
		1-641084-0*		1-641083-0*	
2	-	1-480698-0**	350777-1**	1-480699-0**	350778-1**
		1-480700-0**	350766-1**	1-480701-0**	350767-1**
3	.20.32	1-641771-0**		1-641767-0**	
4	1.050 26.67	1-480702-0**	350779-1**	1-480703-0**	350780-1**
5	1.300 33.02	1-480783-0**	350808-1**	1-480764-0**	350810-1**
6	1.550 39.37	640585-1**	640581-1**		
		1-480704-0	350715-1	1-480705-0	350781-1
8	2.050 52.07	1-641770-0*		1-641768-0*	
		640588-1**	640582-1**		
9	.300 20.32	1-480705-0	350720-1	1-480707-0	350782-1
		1-641769-0*		1-641765-0*	
12	1.050 26.67	1-483708-0	350735-1	1-480709-0	350783-1
		1-641768-0*		1-641764-0*	
15	1.300 33.02	1-480710-0	350736-1	1-480711-0	350784-1

* Material has 125°C (257°F) temperature rating.
** In line version.
Note: S position cavity identification located on side of housing.

Connector Housing Specifications
(Continued)

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
Charts contain dimensions in inches over millimetres.
Dimensional tolerances are ± 0.015 (0.38) unless noted otherwise.

Adapters for Cap Housing

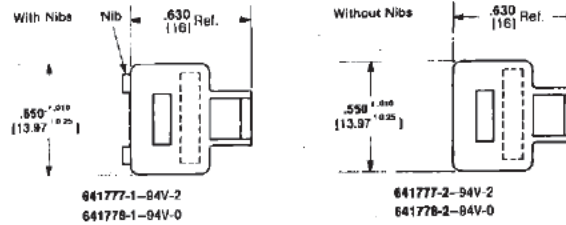
These adapters are designed to anchor the strain reliefs and assembly modules to the cap housings and are available as follows:

1) They accommodate various styles of panel mount latches on the cap housings. The 2 and 6 circuit housings have only one forward stop working in conjunction with the panel retention latch, whereas the remainder of housings (excluding the single circuit housing) have two forward stops.

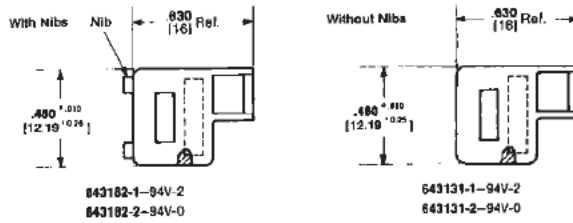
2) Actual part function—adapters are produced with and without 'nibs' on the top of the part to be used in conjunction with strain reliefs and assembly modules respectively. Adapters with 'nibs' are designed to retain strain relief securely at strain relief/housing interface. They are located on the internal sides of the strain relief halves to prevent the halves from 'drawing in' when the strain relief screws are being torqued down to clamp onto the cable harness. Adapters without 'nibs' are designed to allow the assembly module to be attached flush to the cap housing at the interface.

Cap Housing Panel Cutout

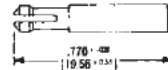
For All Positions Except 2 and 6 Circuit Cap Housings.



For 2 and 6 Circuit Cap Housings Only.



Keying Plug



Part Numbers
1-640415-1-94V-2
1-640415-0-94V-0

Note: Keying plug snaps into plug or cap housing.



No. of Circuits	DIMENSIONS*				
	A	B	C	D	E
2	.585	.340	.095	.630	.250
	14.35	8.64	2.41	13.46	6.35
3	.815	.340	.095	.530	.250
	20.7	8.64	2.41	13.46	6.35
4	1.065	.340	.095	.530	.250
	27.05	8.64	2.41	13.46	6.35
5	1.315	.340	.095	.530	.250
	33.4	8.64	2.41	13.46	6.35
6	.565	.480	.275	1.030	.250
	14.35	12.19	6.99	26.16	6.35
9	.815	.480	.275	1.030	.250
	20.7	12.19	6.99	26.16	6.35
12	1.065	.480	.275	1.030	.250
	27.05	12.19	6.99	26.16	6.35
15	1.315	.480	.275	1.030	.250
	33.4	12.19	6.99	26.16	6.35

* Dimensional tolerances are: ± 0.05 (0.13) for dims. A and D; ± 0.10 (0.25) for dims. B, C and E.

NOTES:

Recommended panel thickness—.030-.090 (0.76-2.29). Panel must be punched so that housing enters panel in same direction as the punch.

* Optional for keying housing to panel.

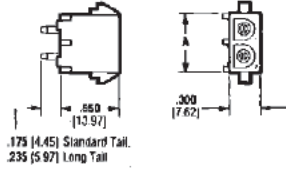
△ Circuit #1 location when using panel keying with 6, 9, 12 and 15 circuit.

• Circuit #1 location when using panel keying with 2, 3, 4 and 5 circuit.



**Printed Circuit Board
Pin Header Assemblies**

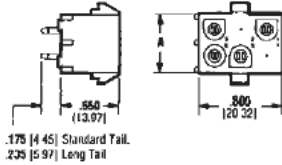
**2, 3, 4, 5, 6 and 8
In-Line Circuits**



Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
Charts contain dimensions in inches over
millimetres.
Dimensional tolerances are ± 0.015 [0.38]
unless noted otherwise.

No. of Circuits	Pin Assembly Part Numbers			Housing Material	A Dim	Pin Finish	Mates with Plug Housing Part Number (Using Socket Contacts)
	Standard Tail*	Standard Tail Polarized*	Long Tail**				
2	350428-1	641963-1	350582-1	94V-2	.550 13.97	Pre-Tin	1-480688-0
	350428-2	—	350582-2			Gold	
	350786-1	641964-1	350787-1	94V-0		Pre-Tin	350777-1
	350786-2	—	350787-2			Gold	
3	350429-1	641966-1	350583-1	94V-2	.600 20.32	Pre-Tin	1-480700-0
	350429-2	—	350583-2			Gold	
	350789-1	641968-1	350790-1	94V-0		Pre-Tin	350766-1
	350789-2	—	350790-2			Gold	
4	350430-1	641867-1	350584-1	94V-2	1.050 26.67	Pre-Tin	1-480702-0
	350430-2	—	350584-2			Gold	
	350792-1	641868-1	350793-1	94V-0		Pre-Tin	350779-1
	350792-2	—	350793-2			Gold	
5	640489-1	643405-1	—	94V-2	1.300 33.02	Pre-Tin	1-480763-0
	640800-1	643406-1	—	94V-0		350809-1	
6	641832-1	643407-1	—	94V-2	1.550 39.37	Pre-Tin	640585-1
	641831-1	643408-1	—	94V-0		—	
8	641825-1	643409-1	—	94V-2	2.050 52.07	Pre-Tin	640586-1
	641828-1	643410-1	—	94V-0		—	

**6, 9, 12 and 15
Multiple Row Circuits**



No. of Circuits	Pin Assembly Part Numbers			Housing Material	A Dim	Pin Finish	Mates with Plug Housing Part Number (Using Socket Contacts)
	Standard Tail*	Standard Tail Polarized*	Long Tail**				
6	350431-1	641969-1	350585-1	94V-2	.550 13.97	Pre-Tin	1-480704-0
	350431-2	—	350585-2			Gold	
	350711-1	641970-1	350732-1	94V-0		Pre-Tin	350715-1
	350711-2	—	350732-2			Gold	
9	350432-1	641971-1	350586-1	94V-2	.600 20.32	Pre-Tin	1-480706-0
	350432-2	—	350586-2			Gold	
	350712-1	641972-1	350742-1	94V-0		Pre-Tin	350720-1
	350712-2	—	350742-2			Gold	
12	350433-1	641973-1	350587-1	94V-2	1.050 26.67	Pre-Tin	1-480706-0
	350433-2	—	350587-2			Gold	
	350713-1	641974-1	350737-1	94V-0		Pre-Tin	350735-1
	350713-2	—	350737-2			Gold	
15	350434-1	641975-1	350588-1	94V-2	1.300 33.02	Pre-Tin	1-480710-0
	350434-2	—	350588-2			Gold	
	350714-1	641976-1	350738-1	94V-0		Pre-Tin	350736-1
	350714-2	—	350738-2			Gold	

NOTES:
Housing Material: 94V-2 rating, natural color (NEMA colors available); 94V-0 rating, brick red.
Socket Material: Phos. Bronze, pre-tin plate or .000030 [0.0008] min. gold over .000050 [0.0013] min. nickel.

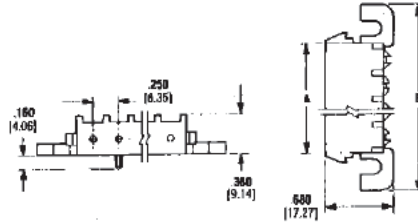
* Use Standard Tail for .082 [1.57] thick printed circuit board.
** Use Long Tail for .125 [3.18] thick printed circuit board.



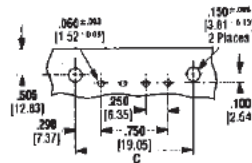
**Printed Circuit Board
Header Assemblies**

**Right Angle
Pin and Socket
Header Assemblies**
Contacts: Phos. Bronze

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
Charts contain dimensions in inches over
millimetres.
Dimensional tolerances are $\pm .015$ (0.38)
unless noted otherwise.



Board Layout



Use 6-32 UNC Pan Head Screw
3/8 (9.53) long for mounting

No. of Circuits	Dimensions			Part Numbers				Contact Finish	Mates with	
	A	B	C	Pin		Socket			94V-0	94V-2
				94V-2	94V-0	94V-2	94V-0			
2	.580	1.245	.830	1-350946-0	1-350942-0	643227-1	643228-1	Pre-Tin	350777-1	1-480698-0
	13.97	31.62	21.08	2-350946-0	2-350942-0	643227-2	643228-2	Gold		
3	.800	1.498	1.080	1-350947-0	1-350943-0	643229-1	643228-1	Pre-Tin	350766-1	1-480700-0
	20.32	37.97	27.43	2-350947-0	2-350943-0	643229-2	643228-2	Gold		
4	1.050	1.745	1.330	1-350948-0	1-350944-0	643231-1	643230-1	Pre-Tin	350779-1	1-480702-0
	26.67	44.32	33.78	2-350948-0	2-350944-0	643231-2	643230-2	Gold		
5	1.300	1.995	1.580	1-350949-0	1-350945-0	643233-1	643232-1	Pre-Tin	350805-1	1-480763-0
	33.02	50.67	40.13	2-350949-0	2-350945-0	643233-2	643232-2	Gold		
6	1.550	2.245	1.830	640587-1	640583-1	643235-1	643234-1	Pre-Tin	640581-1	640585-1
	39.37	57.02	46.48	640587-2	640583-2	643235-2	643234-2	Gold		
8	2.050	2.745	2.330	640588-1	640584-1	643237-1	643236-1	Pre-Tin	640582-1	640586-1
	52.07	69.72	59.16	640588-2	640584-2	643237-2	643236-2	Gold		

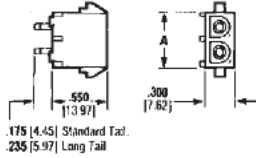
AMP INCORPORATED, HARRISBURG, PA 17105 • PHONE 717-564-0100 TWX 510-657-4110



Printed Circuit Board Socket Header Assemblies

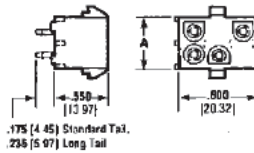
Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
Charts contain dimensions in inches over
millimetres.
Dimensional tolerances are $\pm .015$ [0.38]
unless noted otherwise.

2, 3, 4 and 5 Circuit



No. of Circuits	Socket Assembly Part Numbers			Housing Material	A Dim.	Socket Finish	Notes with Plug Housing Part Number (Using Pin Contacts)
	Standard Tail*	Standard Tail Polarized*	Long Tail**				
2	350739-4	643411-1	350889-4	94V-2	.550 13.97	Pre-Tin	1-480698-0
	350759-3	—	350886-3			Gold	
	350824-1	643412-1	350831-1			Pre-Tin	
3	350760-3	—	350887-2	94V-2	.800 20.32	Gold	1-480700-0
	350760-4	643413-1	350887-4			Pre-Tin	
	350825-1	—	350832-2			Gold	
4	350781-4	643415-1	350888-4	94V-2	1.050 26.67	Pre-Tin	1-480702-0
	350781-3	—	350888-3			Gold	
	350826-1	643416-1	350833-1			Pre-Tin	
5	350826-2	—	350833-2	94V-0	1.300 33.02	Gold	350779-1
	640467-1	643417-1	643061-1			Pre-Tin	
	640901-1	643418-1	643062-1			Gold	
	640901-2	—	—	94V-0		Pre-Tin	1-480783-0
				94V-0		Gold	350809-1

6, 9, 12 and 15 Circuits



No. of Circuits	Socket Assembly Part Numbers			Housing Material	A Dim.	Socket Finish	Notes with Plug Housing Part Number (Using Pin Contacts)
	Standard Tail*	Standard Tail Polarized*	Long Tail**				
6	350762-4	643423-1	350889-4	94V-2	.550 13.97	Pre-Tin	1-480704-0
	350782-3	—	350889-3			Gold	
	350827-1	643424-1	350834-1			Pre-Tin	
9	350827-2	—	350834-2	94V-0	.800 20.32	Gold	350715-1
	350783-4	643425-1	350890-4			Pre-Tin	
	350783-3	—	350890-3			Gold	
12	350828-1	643426-1	350835-1	94V-0	1.050 26.67	Pre-Tin	1-480705-0
	350828-2	—	350835-2			Gold	
	350784-4	643427-1	350891-4			Pre-Tin	
15	350784-3	—	350891-3	94V-2	1.300 33.02	Gold	1-480708-0
	350829-1	643428-1	350836-1			Pre-Tin	
	350829-2	—	350836-2			Gold	
	350765-4	643429-1	350892-4	94V-2	1.300 33.02	Pre-Tin	1-480710-0
	350765-3	—	350892-3			Gold	
	350830-1	643430-1	350837-1			Pre-Tin	
	350830-2	—	350837-2	94V-0		Gold	350736-1

NOTES:

Housing Material: 94V-2 rating, natural color (NEMA colors available), 94V-0 rating, brick red.
Pin Material: Phos. Bronze, pre-11% plate or .000030 [0.0008] min. gold over .000050 [0.0013] min. nickel.

*Use Standard Tail for .062 [1.57] thick printed circuit board.
**Use Long Tail for .125 [3.18] thick printed circuit board.



Assembly Modules

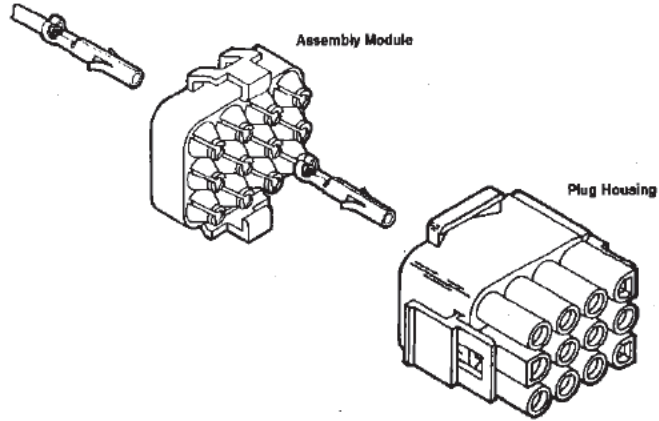
Material and Finish:
94V-0 (brick red)
Max. Wire O.D.: .160 [4.06]

Assembly Instructions:

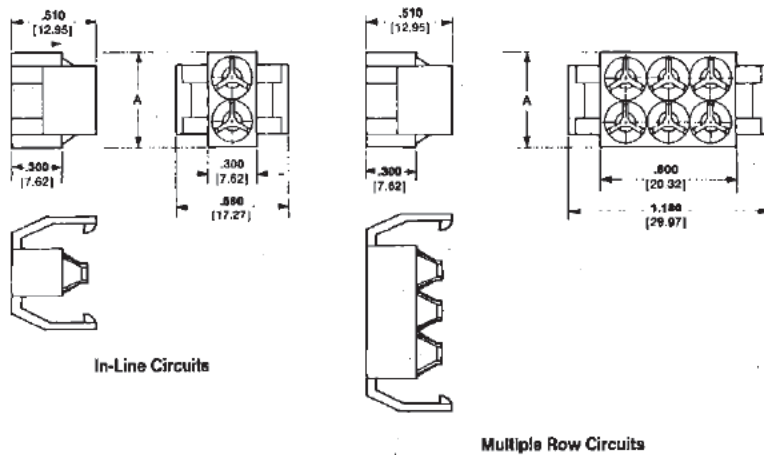
Snap module onto housing.
Fully insert contacts thru module and into housing.

(Note: Several clicks can be heard as the contact is pushed in place). Disengage latches on module and slide back from end of housing. Check for any contact not fully inserted into housing; insert any contacts not locked in housing.

Push module back against housing until latches are engaged.



Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
Chart contains dimensions in inches over millimetres.

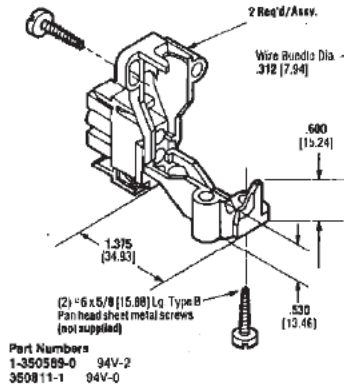


Description	No. of Circuits	A Dim.	Part Numbers
In-Line Circuits	2	.560 13.97	643250-1
	3	.800 20.32	643251-1
	4	1.050 26.67	643252-1
Multiple Row Circuits	6	.550 13.97	643253-1
	9	.800 20.32	643254-1
	12	1.050 26.67	643255-1
	15	1.300 33.02	643256-1

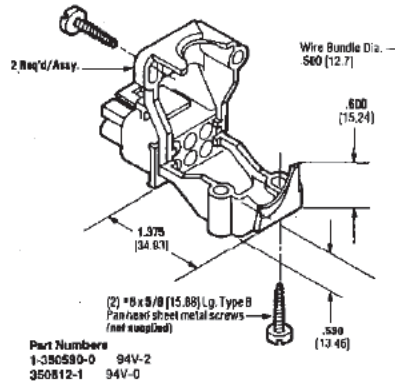
Strain Reliefs

Dimensioning:
 All dimensions in inches and millimetres.
 Values in brackets are metric equivalents.
 Chart contains dimensions in inches over
 millimetres.
 Dimensional tolerances are $\pm .015$ [0.38]
 unless noted otherwise.

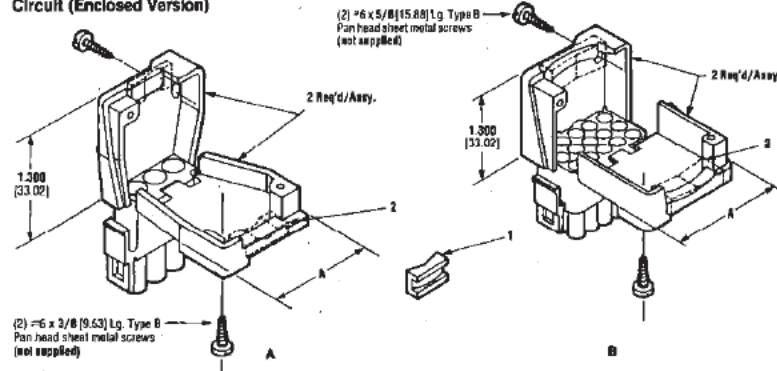
2, 3, 4 and 5 Circuit



6, 9, 12 and 15 Circuit



2, 3, 4, 5, 6, 9, 12 and 15 Circuit (Enclosed Version)



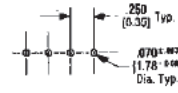
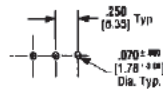
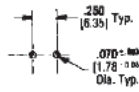
Type	No. of Circuits	A Dim.	Single Wire Dia. Range	Wire Bundle Dia. Range	Part Numbers	
					94V-2	94V-0
A	2	.560 24.38	.040-.100 1.02-4.83	-	1-640719-0	640713-1
	2	.560 24.38	-	.200-.350 5.08-8.89	1-640719-1	640713-2
	3	1.140 28.96	.040-.100 1.02-4.83	-	1-640720-0	640714-1
	3	1.140 28.96	-	.200-.350 5.08-8.89	641763-1	641945-1
	4	1.240 34.04	.040-.100 1.02-4.83	-	641775-1	641776-1
	4	1.240 34.04	-	.200-.350 5.08-8.89	641775-2	641776-2
	5	1.530 38.86	.040-.100 1.02-4.83	-	643000-3	643030-1
	5	1.520 38.86	-	.200-.350 5.08-8.89	643000-2	643030-4
	6	1.780 45.21	.040-.100 1.02-4.83	-	643685-1	643313-1
	6	1.780 45.21	-	.200-.350 5.08-8.89	643685-2	643313-2
	8	2.290 57.91	.040-.100 1.02-4.83	-	-	643314-1
	B	6	1.030 26.18	-	.120-.850 3.05-16.51	1-640721-0	640715-1
9		1.030 26.18	-	.120-.850 3.05-16.51	1-640722-0	640716-1
12		1.260 32.51	-	.150-.750 3.81-19.05	1-640723-0	640717-1
15		1.630 38.86	-	.200-.350 5.08-8.89	1-640724-0	640718-1

- Notes:**
1. Insert comes attached to strain relief. It can be used to provide additional adjustment for small wire bundles or discarded.
 2. Insert to be positioned as shown by dotted lines.
 3. Strain relief part numbers represent one-half of a strain relief. Two of a part number are required for one connector.

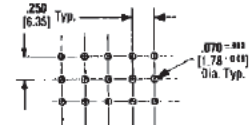
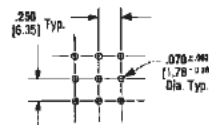
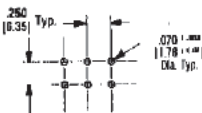
**Printed Circuit Board Mounting
Dimensions and Test Connectors**

Dimensioning:
All dimensions in inches and millimetres.
Values in brackets are metric equivalents.
Chart contains dimensions in inches over millimetres.
Dimensional tolerances are .015 (0.38) unless noted otherwise.

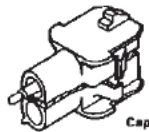
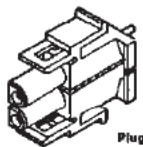
**2, 3, 4 and 5 Position
Pin or Socket
Header Assemblies**



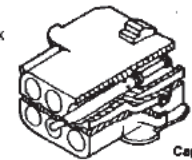
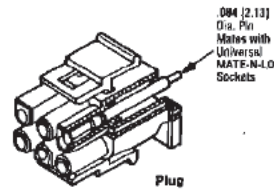
**6, 9, 12 and 15 Position
Pin or Socket
Header Assemblies**



**2, 3, 4 and 5 Circuit
Test Assemblies
(with spring loaded
contacts)**



**6, 9, 12 and 15 Circuit
Test Assemblies
(with spring loaded
contacts)**



Note: Test probes have 5 amp Max. current rating

Note: Test probes have 5 amp Max. current rating

Note: Housing Dimensions same as those on page 6.

No. of Circuits	Part Numbers			
	Plug 84V-2	Plug 84V-0	Cap 84V-2	Cap 84V-0
2	350772-2	350848-2	350773-2	350849-2
3	350772-3	350848-3	350773-3	350849-3
4	350772-4	350848-4	350773-4	350849-4
5	350772-5	350848-5	350773-5	350849-5
6	350772-6	350848-6	350773-6	350849-6
9	350772-9	350848-9	350773-9	350849-9
12	1-350772-2	1-350848-2	1-350773-2	1-350849-2
15	1-350772-5	1-350848-5	1-350773-5	1-350849-5

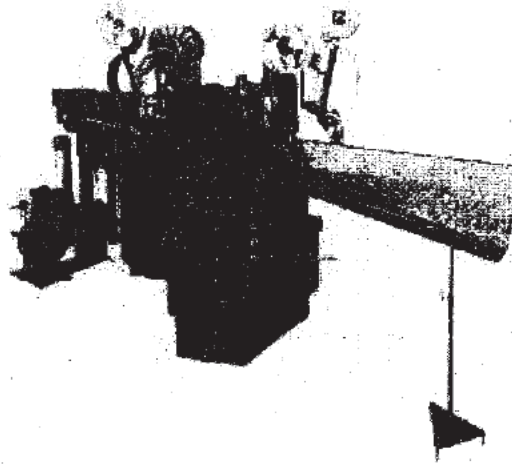
Application Tooling

AMPOMATOR

Lead Making Machines

AMP Incorporated provides five models of this machine. Similar in design, each contains two AMP Model "T" Terminating Devices adapted to the particular machine. Quick-change miniature applicators with dial settings permit product changeovers with minimal downtime.

Wire is fed into the machine through mechanical or electronic wire measuring devices. Depending on type of wire leads being produced, the leading end of the wire is stripped and terminated, then advanced through the machine to the programmed length. Upon completion of this operation, stripping and terminating of the trailing end is accomplished. Termination of the leading end of the wire is performed by one device and the trailing end by another, thereby making it possible to apply like to unlike terminals to a single wire lead. Machines incorporating two wire measuring devices can produce



two wire leads of different lengths simultaneously and apply up to four terminals in a single cycle of operation.

Specifications

Wedge: 4000 lbs. (1814.4 kg) (approximately)

Height: 86" (223.6 cm)

Width: 74" (190 cm)

Length: 155" (502.9 cm)

Air Supply: 100 psi (6.89 bars) at 7 cfm (198.24 liters/min.)

Power Requirements: Several options available; contact AMP Inc.

Production:

Up to 5700 10" (25.4 cm) leads;
1020 150" (381 cm) leads.
Model IV-B limited to 3000 leads;
cable range 24-12 AWG (0.2-3 mm).

Optional Accessories:

- Partial-strip kit
- Wire cleaner
- Short lead adaptor
- Wire marker
- Lamp wire kit
- Soap tank for asbestos wire
- Long lead stacker

**CERTI-CRIMP
Hand Tool**



For limited production, prototype, experimental and servicing applications, CERTI-CRIMP hand tools are ideal. The ratchet device located between the tool handles assures precise pressure needed to form a proper crimp.

**AMP-O-LECTRIC
Terminating Machine
with Standard or
Miniature Applicators**

The AMP-O-LECTRIC semi-automatic terminating machine is an easily moved, bench mounted unit designed to terminate a variety of reel-spool, open or closed barrel AMP products. The machine operates on standard 110 volt ac power and is actuated by a foot pedal. It operates as fast as the operator can insert the wire, up to 2,000 units/hr. Top quality terminations per hour are possible.

Specifications

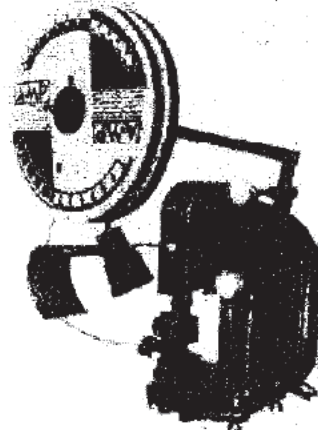
Power Required: 115 vac, 60 Hz

Weight: 230 lbs. (104.32 kg)

Height: 36" (91.4 cm)

Width: 21" (53.3 cm)

Depth: 20" (50.8 cm)



Application Tooling

(Continued)

Dimensions: All dimensions are metric equivalents.

Miniature Quick-Change Applicator

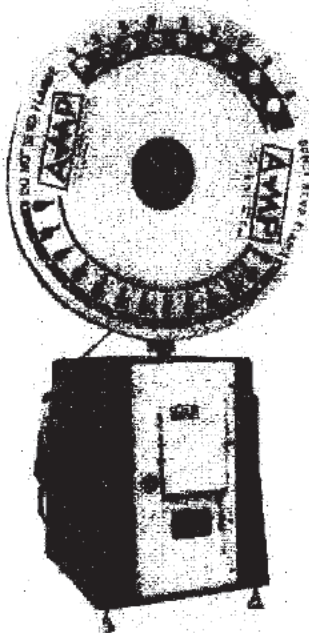


AMP Miniature Quick-Change Applicators are available for a wide variety of product applications and are adapted to be used with both fully automatic equipment and semi-automatic bench equipment. They are the most commonly used applicators produced by AMP Incorporated.

These applicators have many advantages over standard applicators:

- 1) quickly and easily replaced with another applicator to run different product using the same terminating device/machine, thereby reducing downtime to a minimum
- 2) easily replaced, thereby reducing maintenance cost
- 3) capable of handling similar products and various wire sizes, simply by dialing in the exact wire and insulation crimp height settings.

AMP-O-MATIC Side Feed Stripper/Crimper Machine
Part Number: 488848-1



This is a pneumatically operated bench-top machine capable of stripping wires and crimping side feed terminals. It is a compact machine and can be easily moved to other locations.

The machine is completely enclosed and the "target area" is visible through a closed window. In the door inter-changeable applicators used in this machine are similar to

the quick change type applicator. They feature wire and insulation crimp adjustment on the top of the applicator ram.

Unstripped wire is inserted and the foot valve depressed. The wire is automatically stripped and a terminal applied.

Depending on operator dexterity and work being processed rates in excess of 1,000 terminations/hour are attainable.

Specifications

- Weight: 95 lbs. (43.09 kg)
- Width: 14" (35.6 cm)
- Height: 30" (76.2 cm) including tool support
- Depth: 18" (45.7 cm)
- Wire Range: 22-16 AWG (0.03-1.4 mm²)
- Type Terminal: Side feed open barrel
- Air Supply: 80-100 psi (5.51-6.89 bara) at 1.5 cfm
- Power Required: 115 vac, 60 Hz
- NOTE: Rates including contact AMP Incorporated.



Numerical Index

PART NO. (SERIES)	PAGE	PART NO. (SERIES)	PAGE	PART NO. (SERIES)	PAGE	PART NO. (SERIES)	PAGE
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350429	8	350826	10	640688	8, 9, 9	643253	11
350430	8	350827	10	640687	9	643254	11
350431	8	350828	10	640688	9	643255	11
350432	8	350829	10	640713	12	643256	11
350433	8	350830	10	640714	12	643313	12
350434	8	350831	10	640715	12	643314	12
350536	5	350832	10	640716	12	643405	8
350537	5	350833	10	640717	12	643406	8
350538	5	350834	10	640718	12	643407	8
350547	5	350835	10	640719	12	643408	8
350550	5	350836	10	640720	12	643409	8
350551	5	350837	10	640721	12	643410	8
350552	5	350848	13	640722	12	643411	10
350570	5	350849	13	640723	12	643412	10
350582	8	350851	5	640724	12	643413	10
350583	8	350865	6	640900	8	643414	10
350584	8	350866	6	640901	10	643415	10
350589	12	350867	6	641083	6	643416	10
350590	12	350868	6	641084	6	643417	10
350854	8	350871	5	641783	12	643418	10
350669	5	350873	5	641784	8	643423	10
350687	5	350874	5	641785	6	643424	10
350688	5	350877	5	641786	6	643425	10
350690	5	350918	5	641787	6	643426	10
350700	5	350919	5	641788	6	643427	10
350705	5	350922	5	641789	6	643428	10
350706	5	350923	5	641770	6	643429	10
350707	5	350924	5	641771	6	643430	10
350711	8	350925	5	641775	12	643585	12
350712	8	350942	9	641776	12		
350713	8	350943	9	641777	7		
350714	8	350944	9	641778	7		
350715	8, 8, 10	350945	9	641825	8		
350720	8, 8, 10	350946	9	641828	8		
350732	8	350947	9	641831	8		
350735	6, 8, 10	350948	9	641832	8		
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350737	8	350988	10	641983	8		
350738	8	350987	10	641984	8		
350742	8	350988	10	641985	8		
350759	10	350989	10	641986	8		
350760	10	350990	10	641987	8		
350761	10	350991	10	641988	8		
350762	10	350992	10	641069	8		
350763	10	480698	6, 8, 10	641970	8		
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350766	8, 8, 9, 10	480701	6	641973	8		
350767	6	480702	6, 8, 10	641974	8		
350772	10	480703	6	641975	8		
350773	10	480704	6, 8, 10	641976	8		
350777	6, 8, 9, 10	480705	6	643030	12		
350778	6	480706	6, 8, 10	643061	10		
350779	6, 8, 9, 10	480707	6	643062	10		
350780	6	480708	6, 8, 10	643131	7		
350781	6	480709	6	643182	7		
350782	6	480710	6, 8, 10	643228	9		
350783	6	480711	6	643227	9		
350784	6	480713	6, 8, 10	643228	9		
350786	8	480764	6	643229	9		
350787	8	840309	5	643230	9		
350789	8	840310	5	643231	9		
350790	8	840347	5	643232	9		
350792	8	840415	7	643233	9		
350793	8	840468	8	643234	9		
350809	6, 8, 9, 10	840487	10	643235	9		
350810	6	840581	6, 9	643236	9		
350811	12	840582	6, 9	643237	9		
350812	12	840683	9	643260	11		

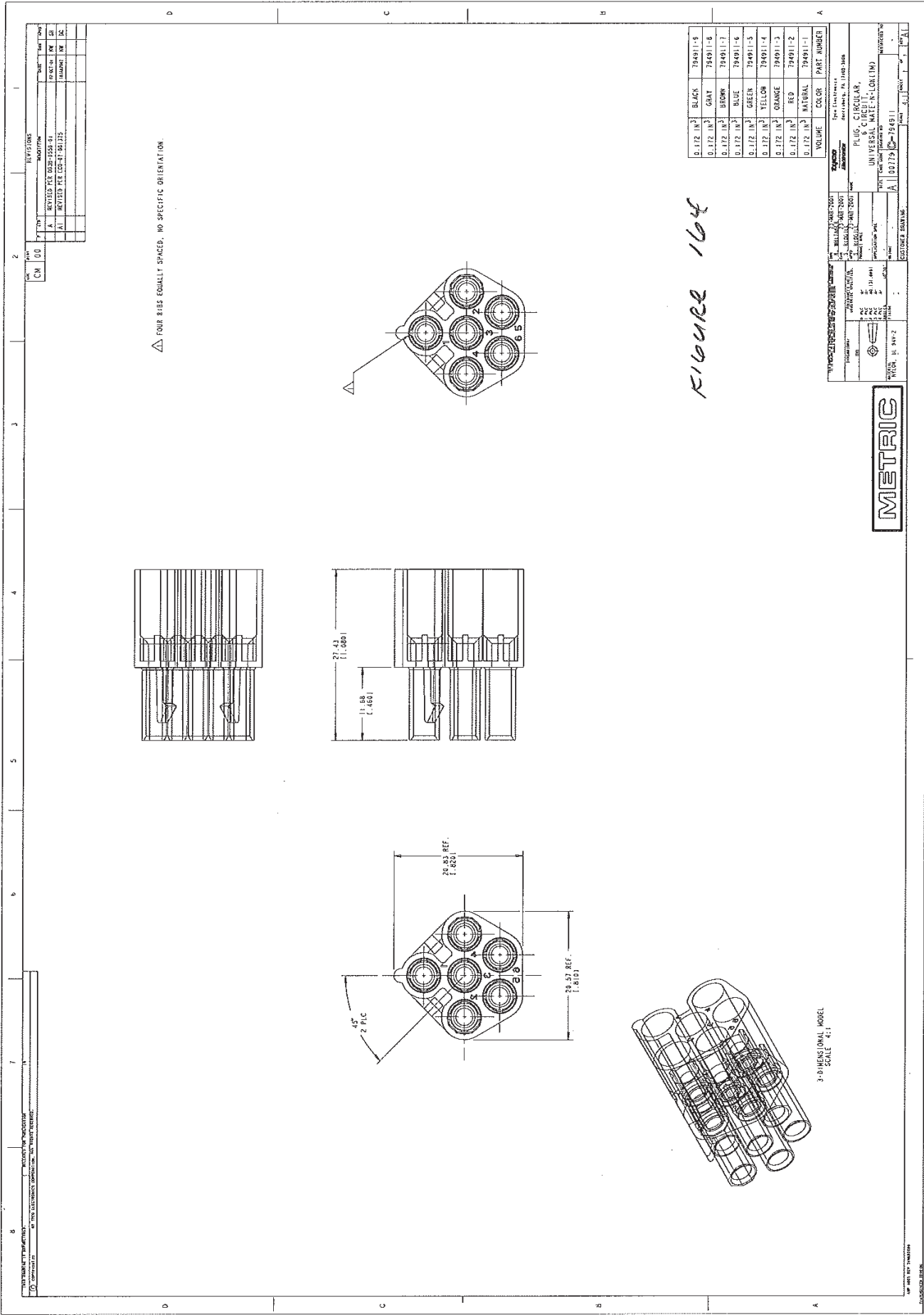
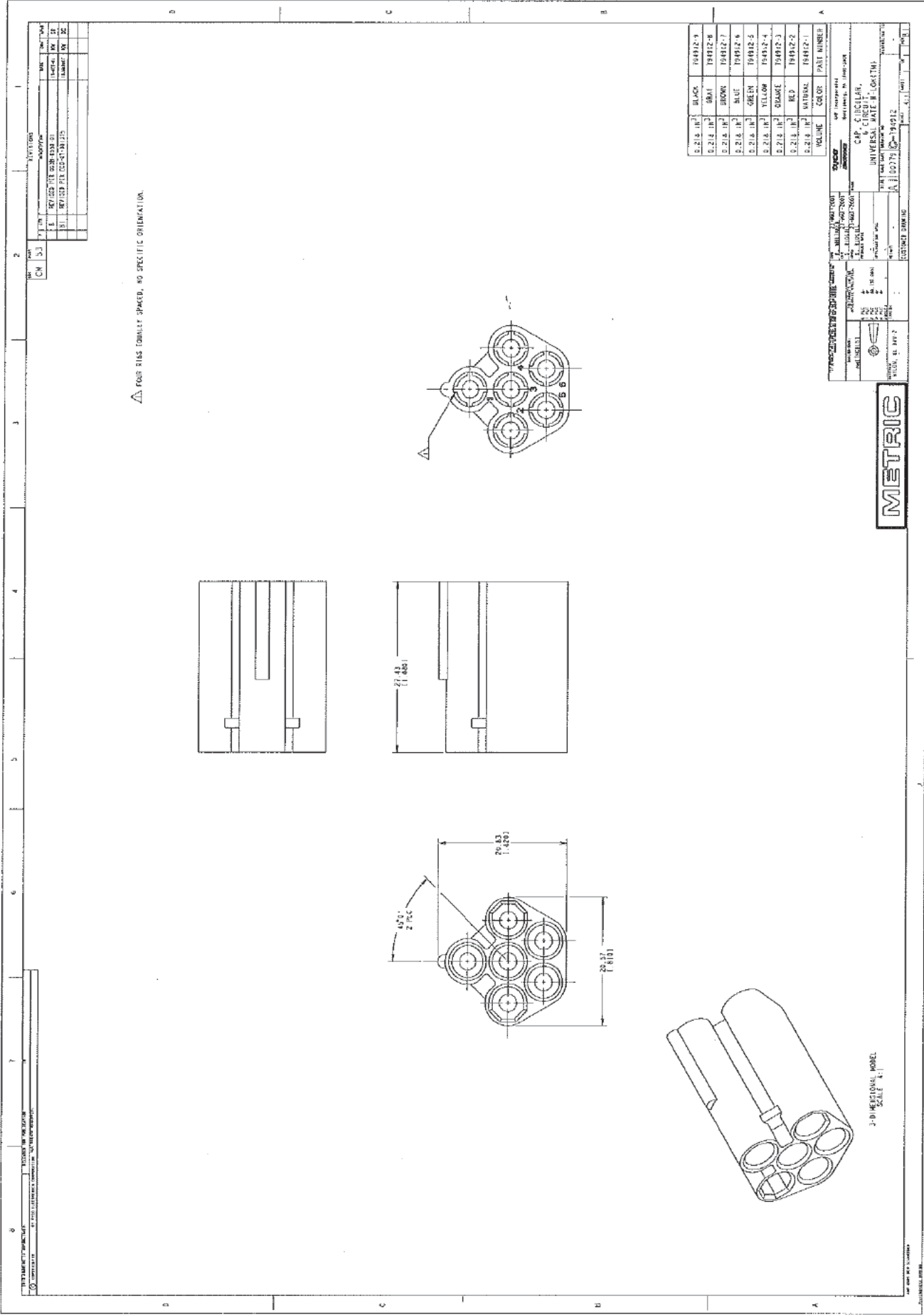


FIGURE 164



3-D ISOMETRIC MODEL
SCALE 1:1

METRIC

5.218 10 ³	BLACK	704912-9
0.218 10 ³	BRN	194912-6
0.218 10 ³	BROWN	194912-7
0.218 10 ³	BLU	704912-8
0.218 10 ³	GREEN	194912-5
0.218 10 ³	YELLOW	194912-4
0.218 10 ³	ORANGE	194912-3
0.218 10 ³	RED	194912-2
0.218 10 ³	WHITE	194912-1
VOLUME	COLOR	PART NUMBER

1. MILLING
 2. TURNING
 3. DRILLING
 4. GRINDING
 5. POLISHING
 6. OTHER

CAP. CIRCULAR
 UNIVERSAL CUTTING TOOL
 PART NO. 704912-9
 QUANTITY 1

METRIC
 SCALE 1:1

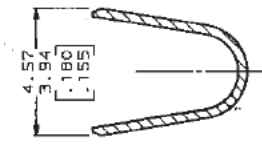
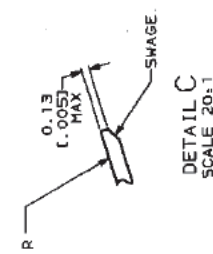
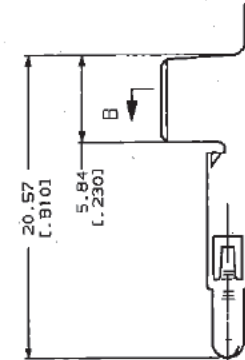
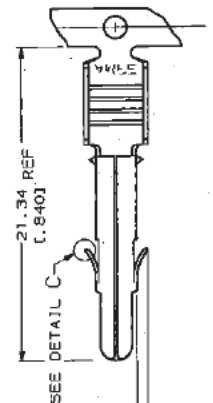
REV	DATE	BY	CHK	APP
1	REVISED TO 2028 1231 21			
2	REVISED TO 2028 1231 21			
3	REVISED TO 2028 1231 21			

△ FOUR RISE EQUALLY SPACED, NO SPECIFIC ORIENTATION.

FIG 165
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REVISIONS		DATE	BY	CHK	APP
CH	00				
REVISED PER EC 0636-0659-02		04-06-02	KJ	SR	

1. DIMENSIONS IN BRACKETS ARE IN INCHES.
2. WIRE RANGE 12 - 10 AWG.
3. INSULATION RANGE .05-.08 [.200] MAX LIMITED BY THE CONNECTOR HOUSING CAVITY.



SECTION B-B
SCALE 10:1

METRIC

DESIGNED		Tjaca Electronics	
DRAWN		Harrisburg, PA 17106-3008	
CHECKED		UNIVERSAL MATE-N-LOK™	
PART NUMBER		A200779-1585064	
CUSTOMER DRAWING		1585064-1	

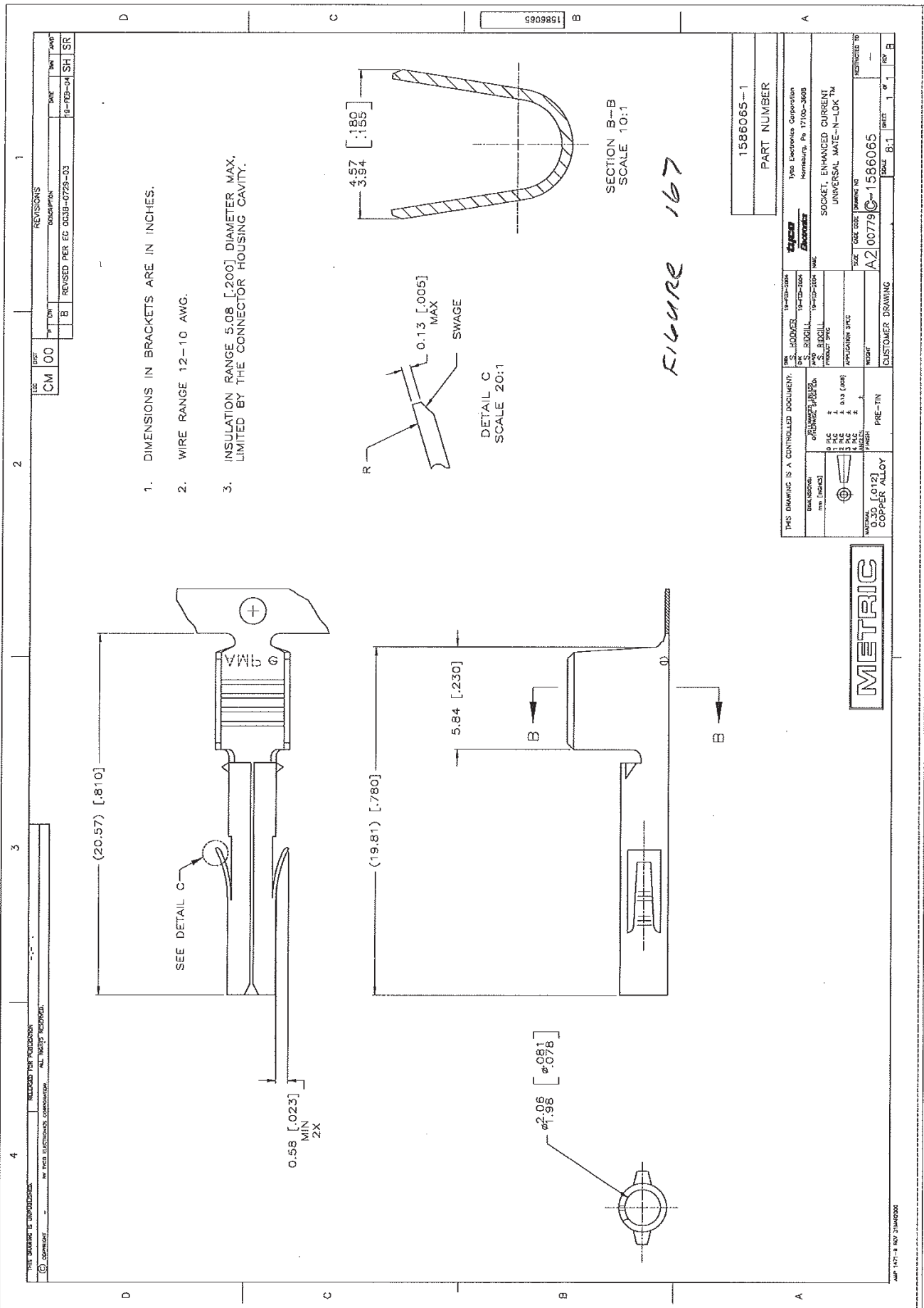
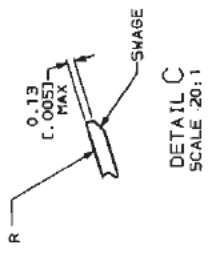
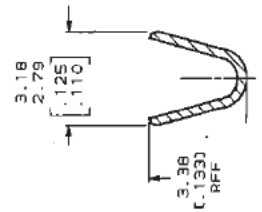
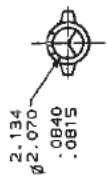
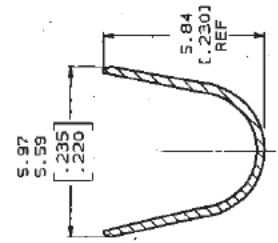
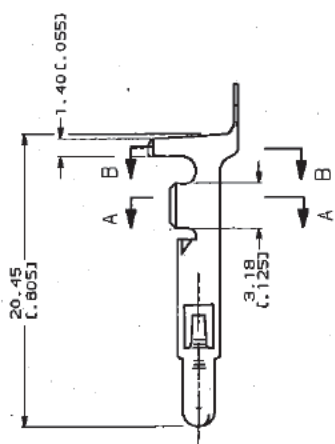
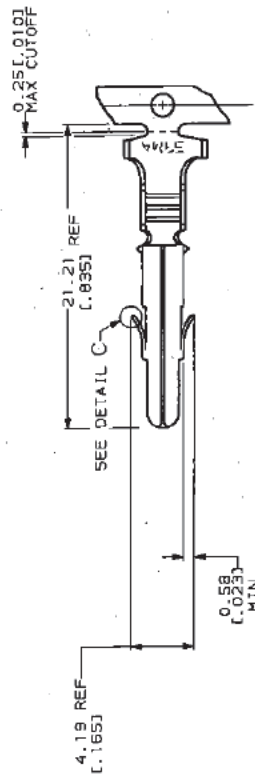


FIG 167
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

PART NUMBER: 1586066		REVISIONS	
REV	DATE	DESCRIPTION	BY
1	08-06-02	REVISED PER EC 063B-065B-02	SR

1. DIMENSIONS IN BRACKETS ARE IN INCHES.
2. WIRE RANGE 20 - 14 AWG, INSULATION RANGE #5.08 (1.200) MAX.



used with 480711, etc.

1586066-1
PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.		DATE	BY
DATE	BY	DATE	BY
08-06-02	SR	08-06-02	SR
MATERIALS		DRAWING NO.	
1. MILLESE	2. 300-300	1586066	
3. BUELL	3. 300-300	1586066	
INDUSTRIAL		INDUSTRIAL	
1. PLE	2. 131.680	PRE-TIN	
3. PLE	2. 131.680	PRE-TIN	
4. PLE	2. 131.680	PRE-TIN	
5. PLE	2. 131.680	PRE-TIN	
MATERIALS		MATERIALS	
COPPER ALLOY		COPPER ALLOY	
CUSTOMER DRAWING		CUSTOMER DRAWING	
A21007790-1586066		A21007790-1586066	
Tigo Electronics		Tigo Electronics	
Harrisburg, PA 17105-3608		Harrisburg, PA 17105-3608	
UNIVERSAL MATE-N-LOK™		UNIVERSAL MATE-N-LOK™	
PIN		PIN	
PART NUMBER		PART NUMBER	
1586066-1		1586066-1	

METRIC

SECTION B-B
SCALE 10:1

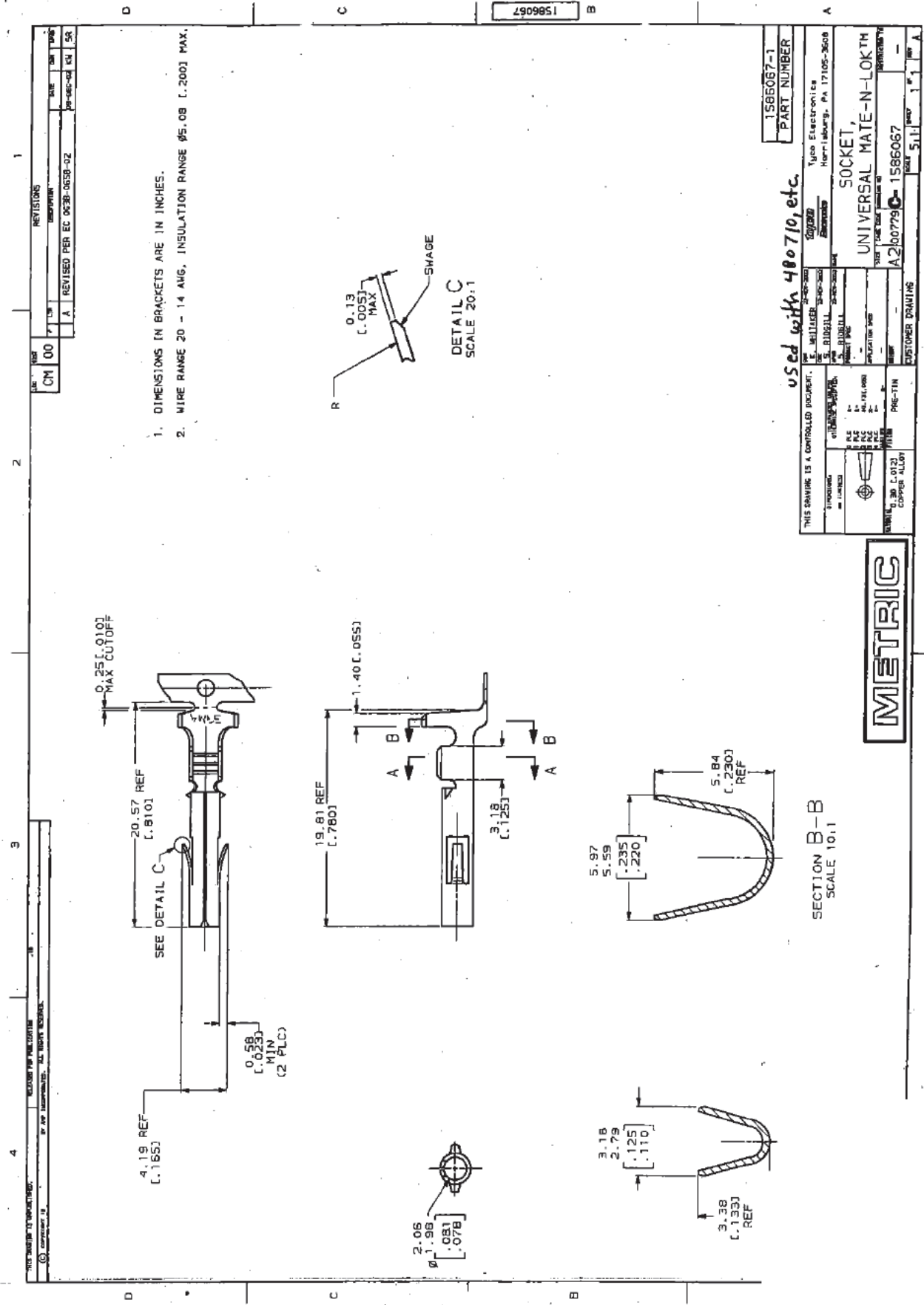
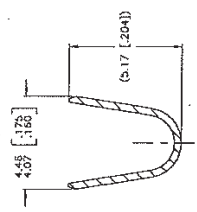
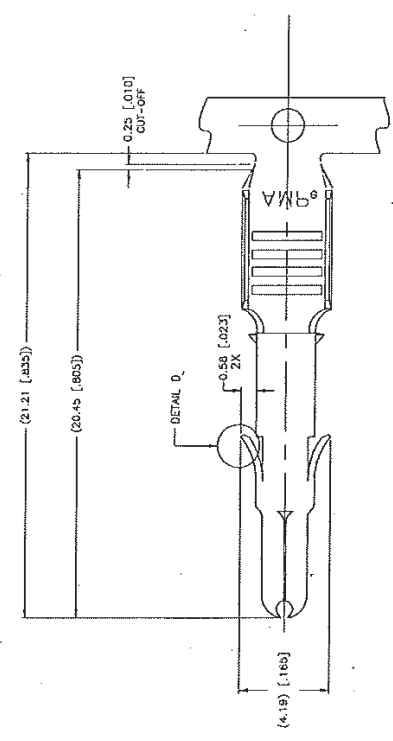
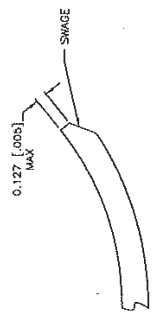
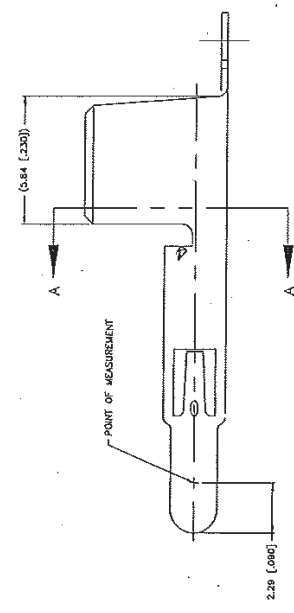


FIG 169
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	CHK
CM 00			
REVISIONS			
1			
2			
3			
4			
5			
6			
7			
PART NUMBER: 1586096 TITLE: PRE-TIN .012 COPPER ALLOY QUANTITY: 1586096-1 DRAWN BY: [REDACTED] CHECKED BY: [REDACTED] DATE: 10/15/88 SCALE: 1:1 SHEET NO: 1 OF 1			



1. WIRE RANGE: 12-10 AWG
WIRE INSULATION DIAMETER: 5.08 [.200] MAX.



POINT OF MEASUREMENT

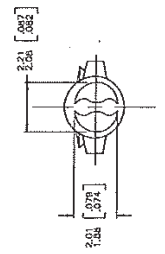
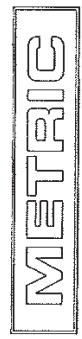


FIG. 170

PRE-TIN .012 COPPER ALLOY 1586096-1	
FIG. NO.	FIG. 170
REV.	
DATE	10/15/88
BY	[REDACTED]
CHK	[REDACTED]
THE DRAWING IS A CONTROLLED DOCUMENT. ALL CHANGES MUST BE APPROVED BY THE DESIGN ENGINEER. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE TO THE CENTERLINE OF THE PART. DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY.	
CUSTOMER DRAWING: A1 00779 C-1 586096 PART NUMBER: 1586096-1 QUANTITY: 1586096-1	



1586096

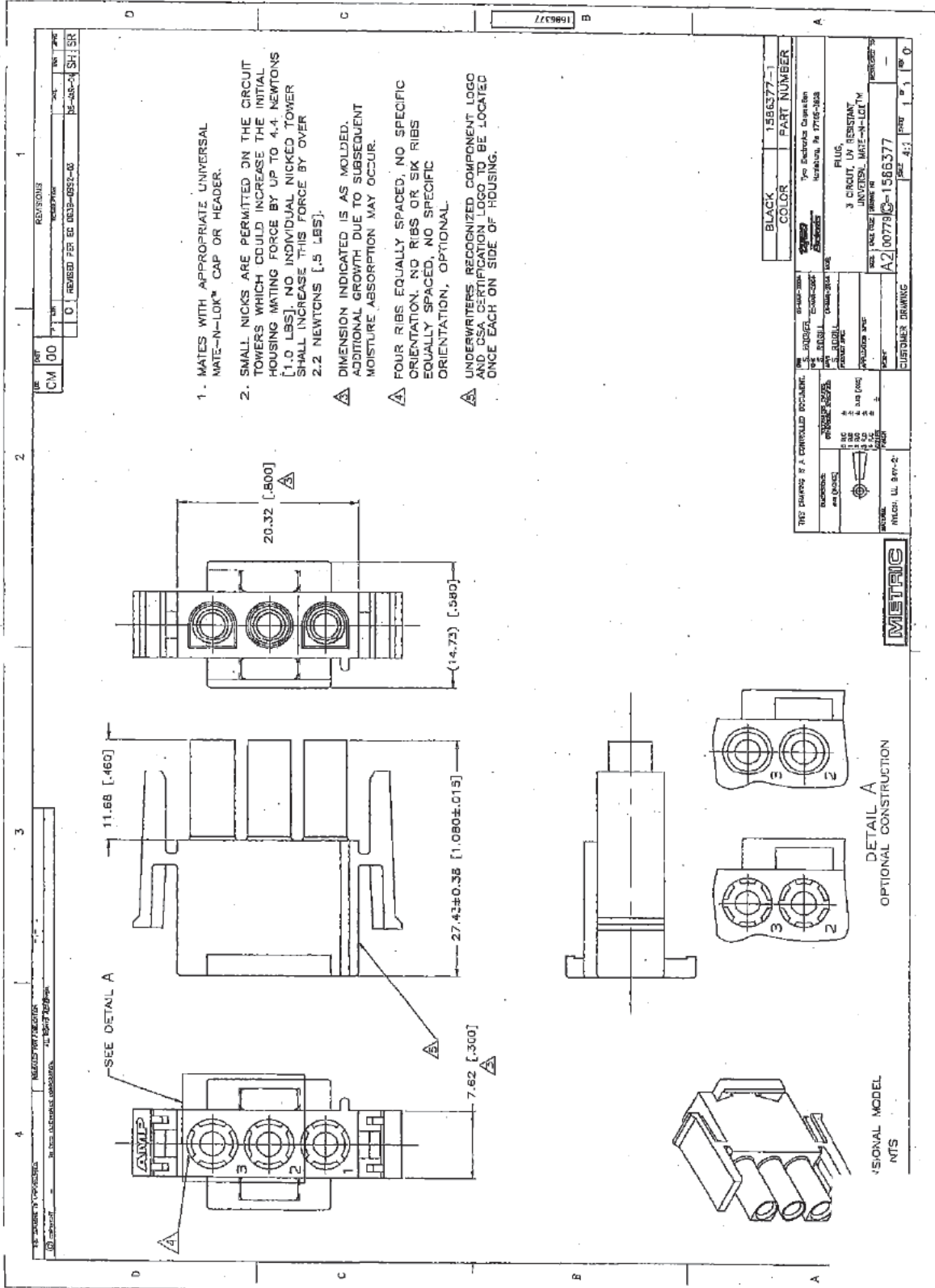
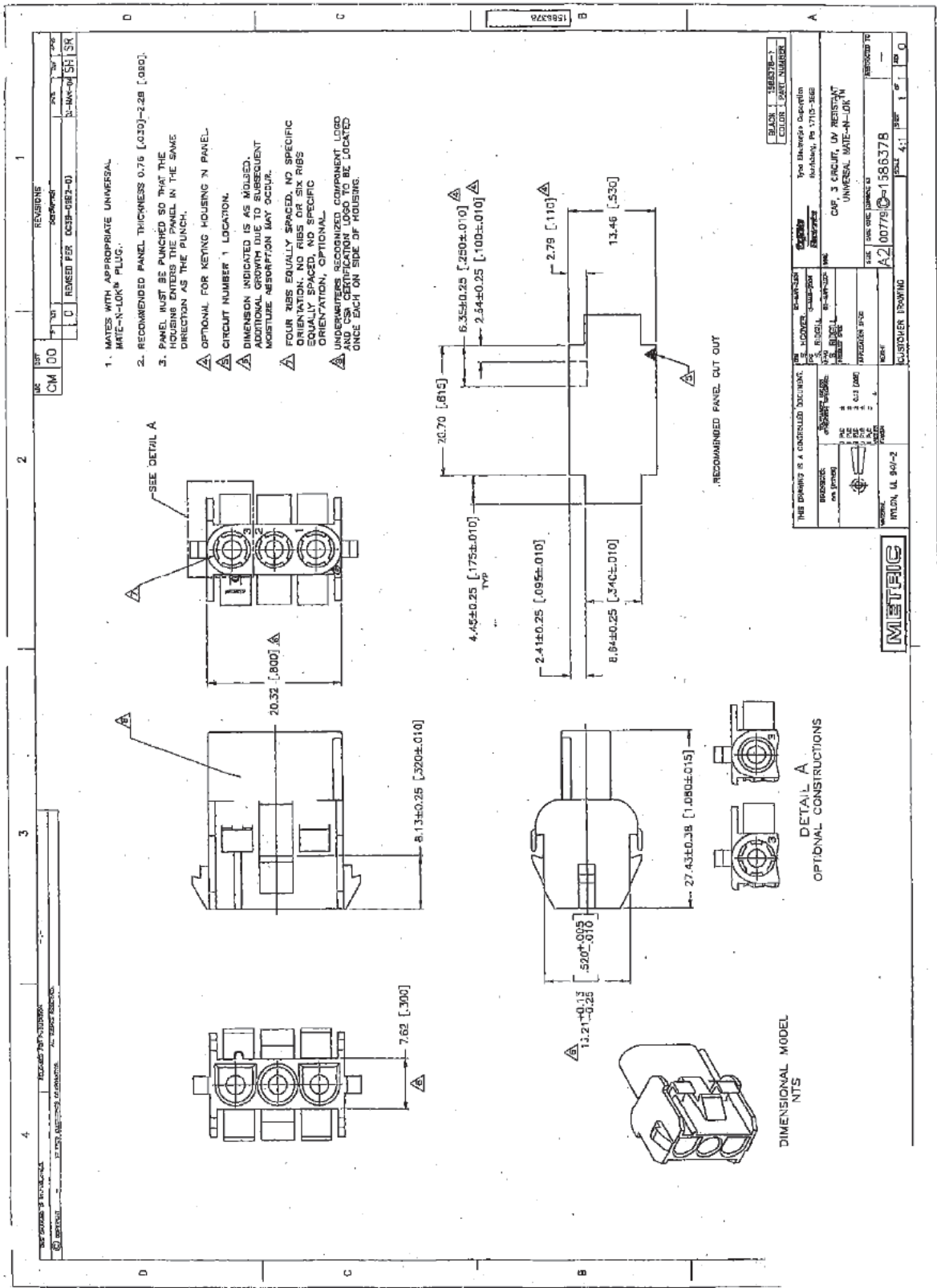


FIG 171
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549



1. MATE WITH APPROPRIATE UNIVERSAL MATE-N-LOK® PLUG.
 2. RECOMMENDED PANEL THICKNESS 0.76 [0.30]-2.28 [0.90].
 3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- △ OPTIONAL FOR NETING HOUSING IN PANEL.
 - △ CIRCUT NUMBER 1 LOCATION.
 - △ DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
 - △ FOUR RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION, OPTIONAL.
 - △ UNDERWATERS RECOGNIZED COMPONENT LOAD AND CERTIFICATION LOADS MUST BE LOCATED ONE EACH ON SIDE OF HOUSING.

REVISIONS	
REV	DESCRIPTION
CM 00	REVISED PER QCSB-CB7-0
DATE	BY
11-14-78	SH/SK

THIS DRAWING IS A CONTROLLED DOCUMENT.	REVISIONS	TYPE	DATE
BY: [Signature]	1	REVISED	11-14-78
BY: [Signature]	2	REVISED	11-14-78
BY: [Signature]	3	REVISED	11-14-78
BY: [Signature]	4	REVISED	11-14-78
BY: [Signature]	5	REVISED	11-14-78
BY: [Signature]	6	REVISED	11-14-78
BY: [Signature]	7	REVISED	11-14-78
BY: [Signature]	8	REVISED	11-14-78
BY: [Signature]	9	REVISED	11-14-78
BY: [Signature]	10	REVISED	11-14-78

THE DRAWING IS A CONTROLLED DOCUMENT.	REVISIONS	TYPE	DATE
BY: [Signature]	1	REVISED	11-14-78
BY: [Signature]	2	REVISED	11-14-78
BY: [Signature]	3	REVISED	11-14-78
BY: [Signature]	4	REVISED	11-14-78
BY: [Signature]	5	REVISED	11-14-78
BY: [Signature]	6	REVISED	11-14-78
BY: [Signature]	7	REVISED	11-14-78
BY: [Signature]	8	REVISED	11-14-78
BY: [Signature]	9	REVISED	11-14-78
BY: [Signature]	10	REVISED	11-14-78

FIG 172
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

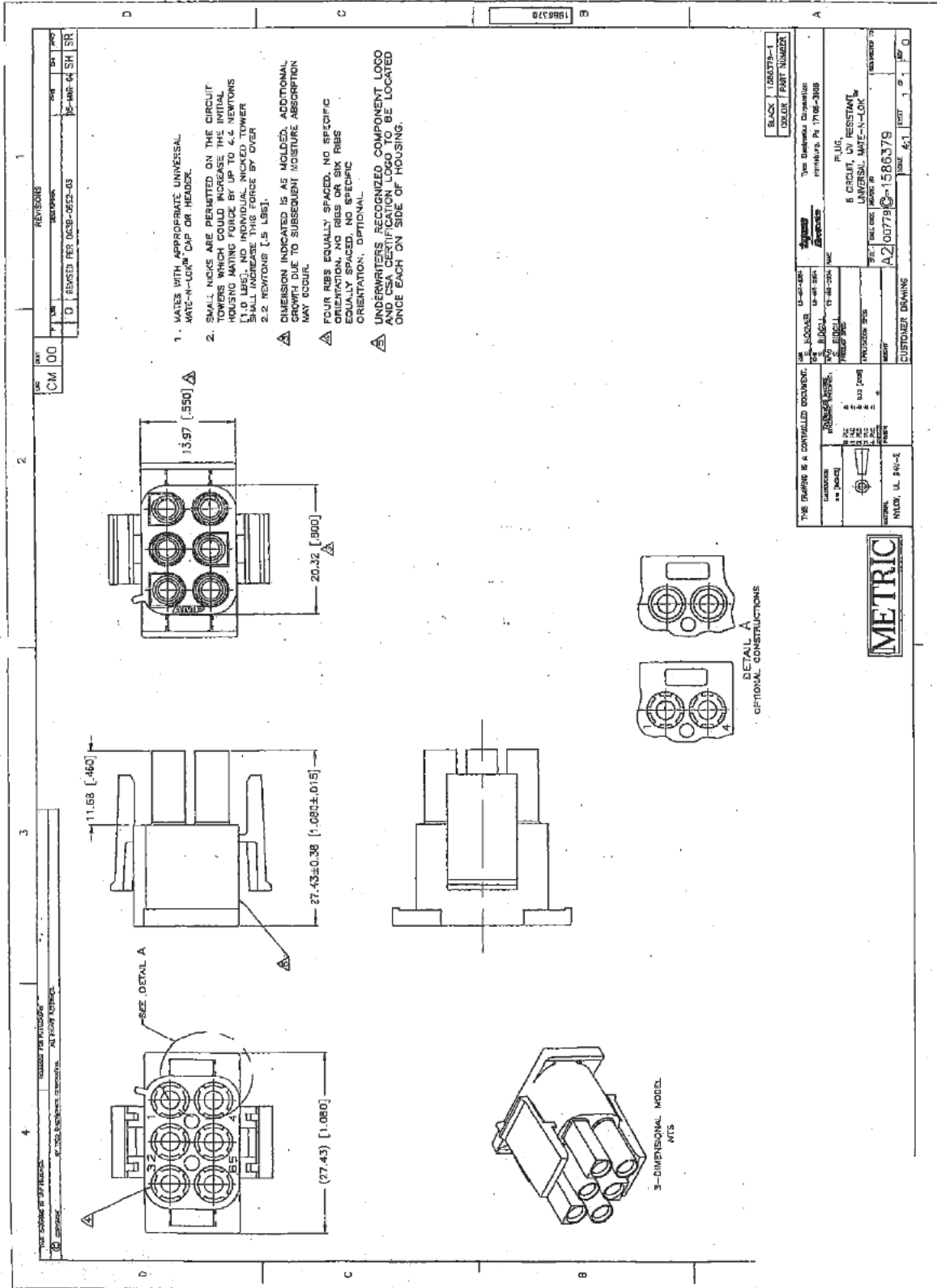


FIG 173
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

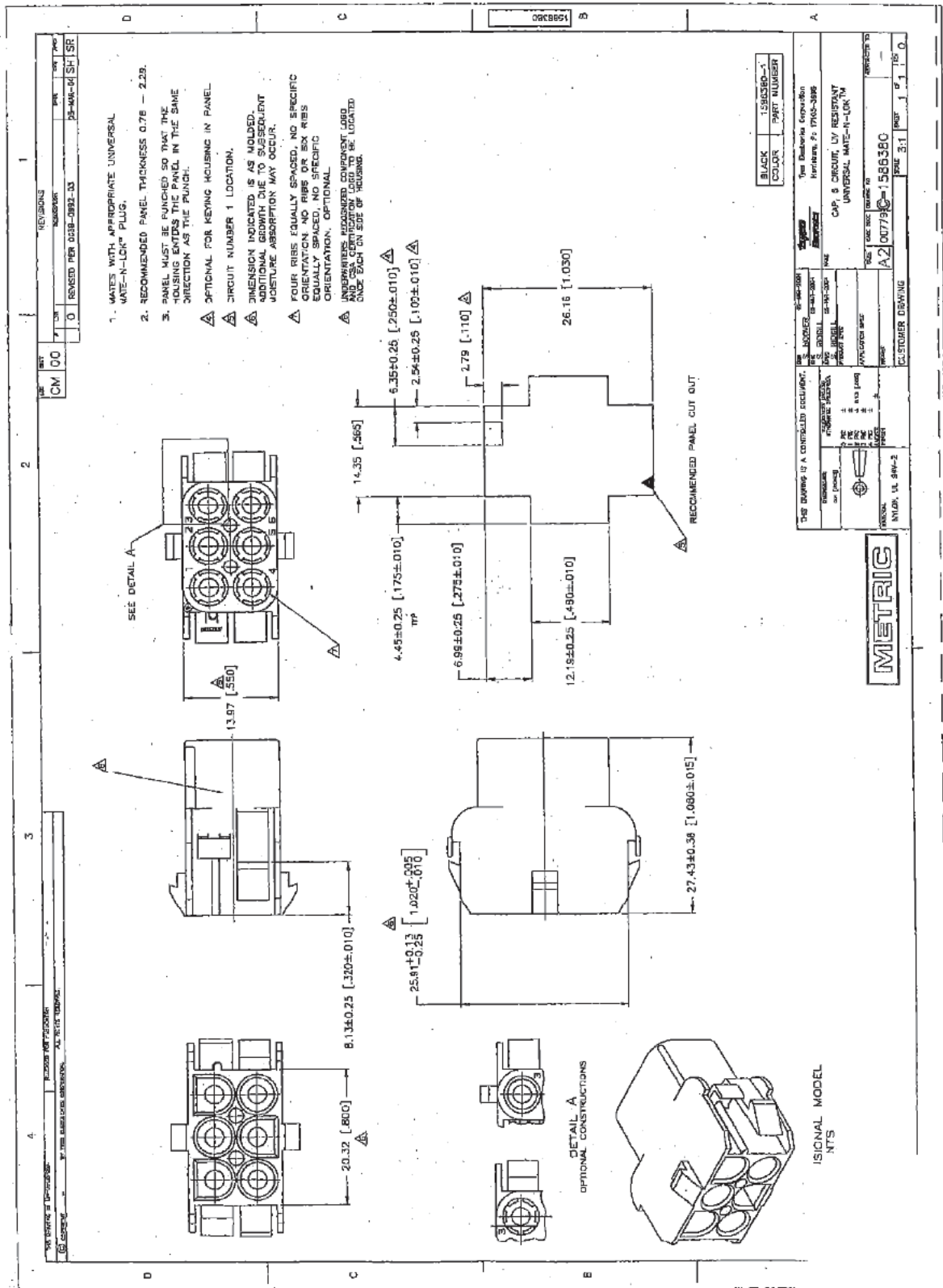
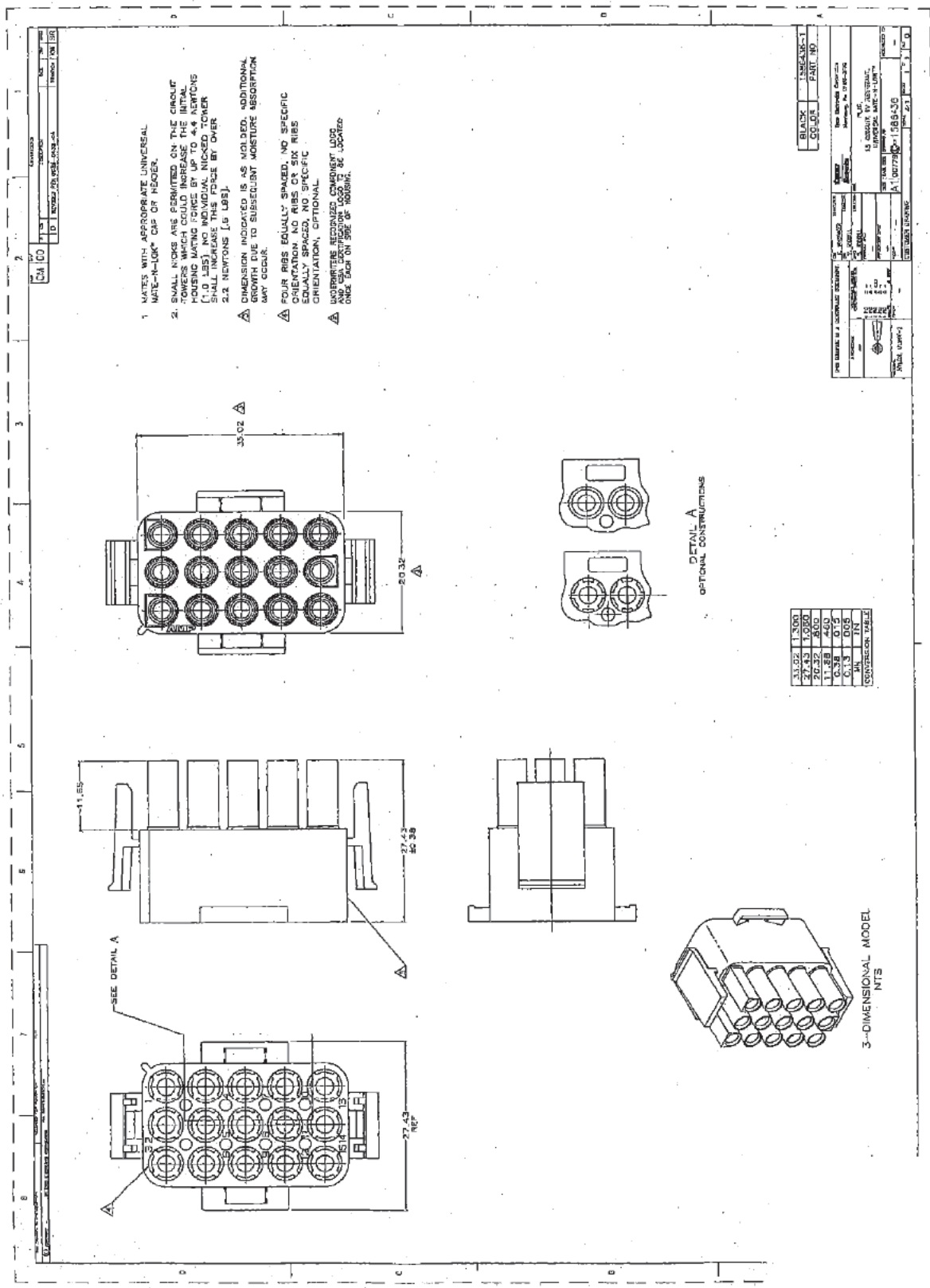


FIG 174
Project 70070692
Report 1030930
Contract 164196
LR 7189-549



REV	DATE	DESCRIPTION
1	10/21/75	ISSUE
2	11/13/75	REVISION
3	01/08/76	REVISION
4	03/02/76	REVISION
5	03/02/76	REVISION
6	03/02/76	REVISION
7	03/02/76	REVISION
8	03/02/76	REVISION
9	03/02/76	REVISION
10	03/02/76	REVISION

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FIG 175
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

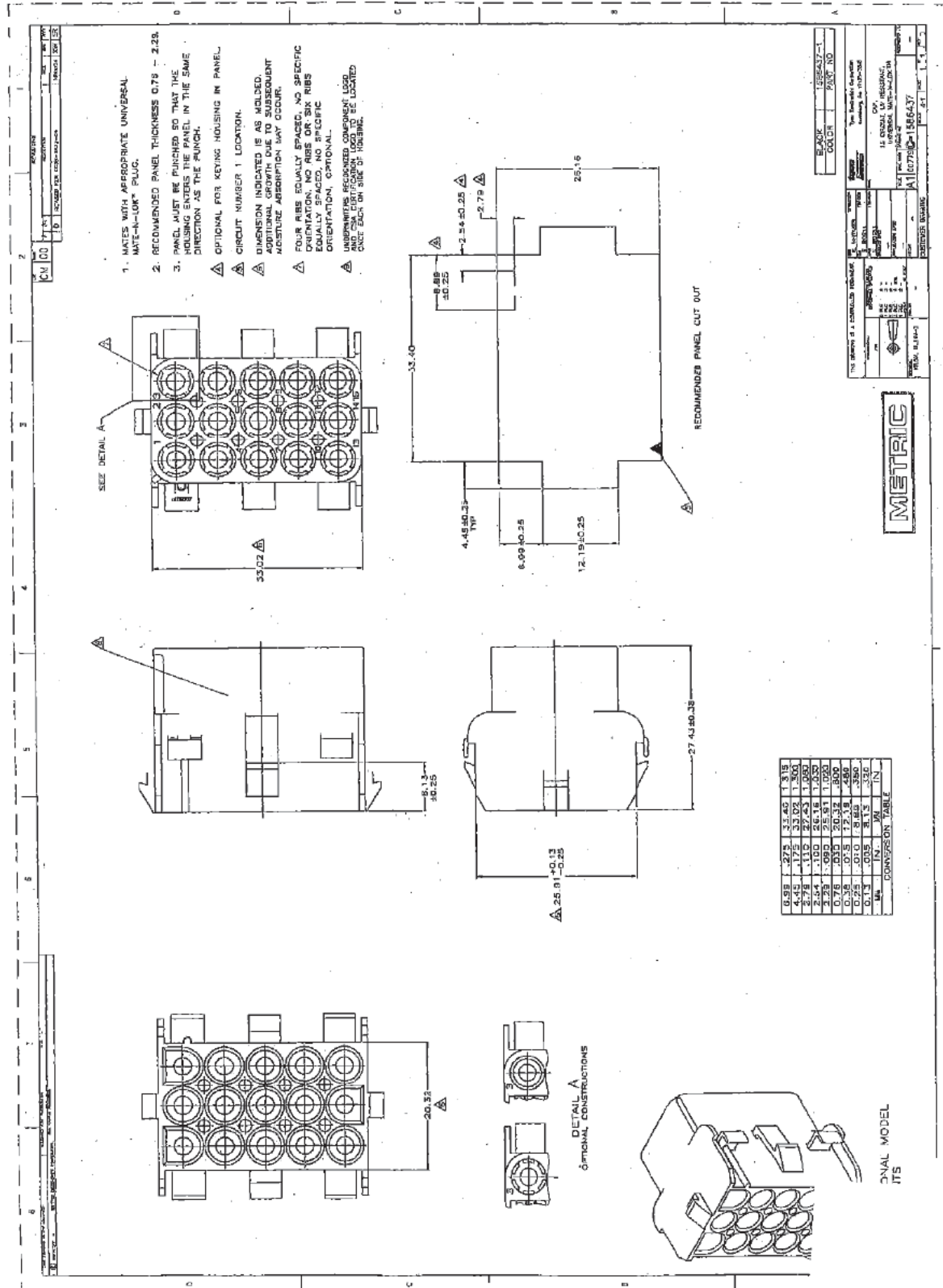
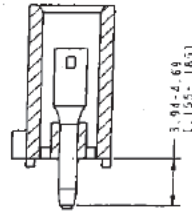
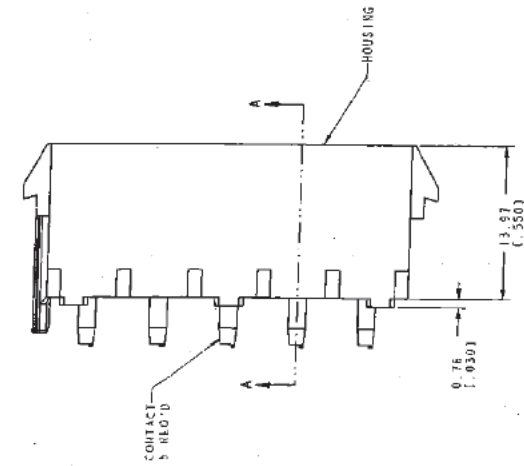
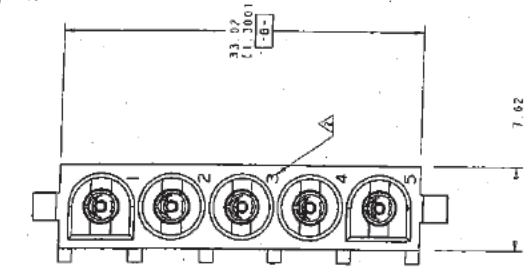


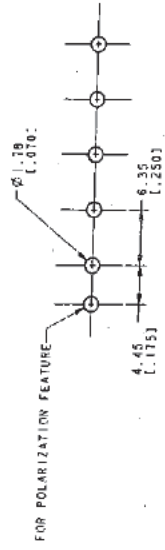
FIG 176
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

REV	DATE	BY	CHKD
1	11-11-63	...	...
2	...	...	...
3	...	...	...
4	...	...	...
5	...	...	...

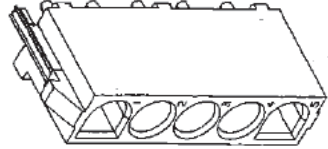
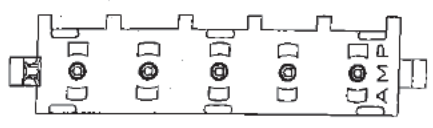
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-13.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES. DOT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENS ONS IN BRACKETS ARE IN 1/16-IN.



SECTION A-A



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 (0.062) THICK P. C. BOARD



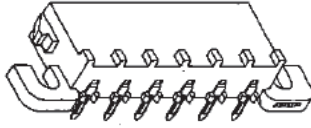
3 DIMENSIONAL MODEL

DESIGNATION	NYLON UL 94V-0 WHITE	794920
MATERIAL AND FINISH	SOULING MATERIAL AND COLOR	PART NUMBER
QUANTITY	1	1
DATE	11-11-63	DATE
BY	...	BY
CHKD	...	CHKD
APPROVED	...	APPROVED
REVISIONS	...	REVISIONS
REV	DATE	BY
1	11-11-63	...
2	...	...
3	...	...
4	...	...
5	...	...

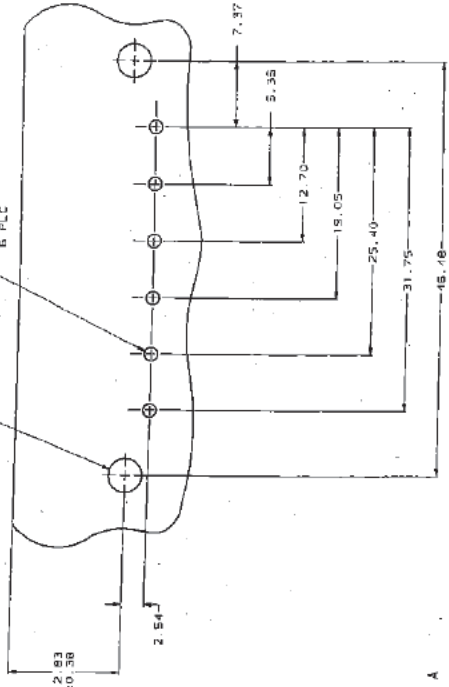
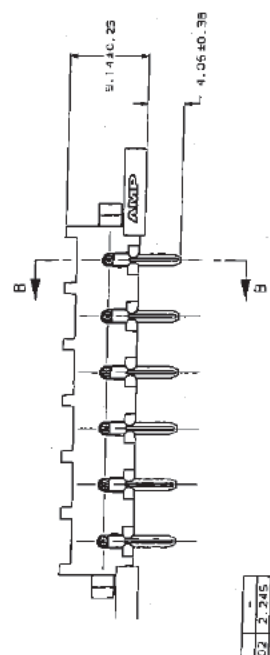
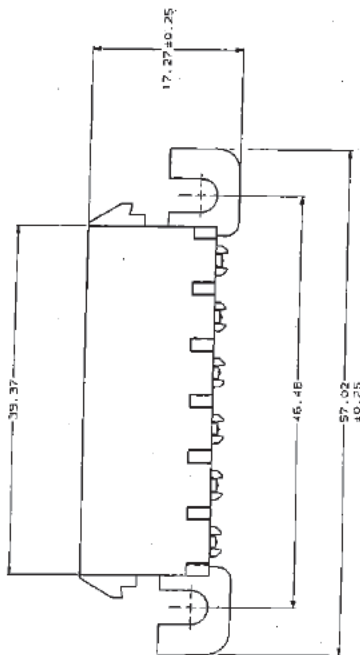
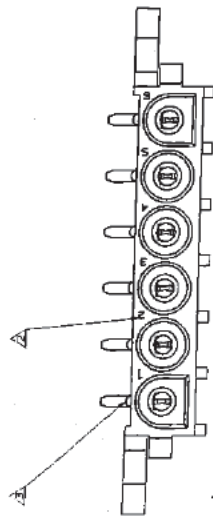


CM 53	REV. 1	REV. 2	REV. 3	REV. 4
DATE	BY	CHKD	APP'D	REVISION

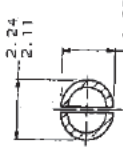
- PARTS COMPLY WITH AMP SOLIDENABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY VARY DUE TO PRINTING. OPTIONAL CONSTRUCTION MAY DELETE THIS RIB.



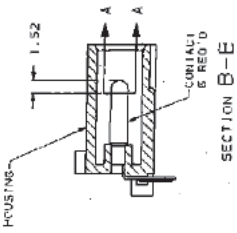
3-DIMENSIONAL MODEL
NITS



RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 THICK P.C. BOARD



SECTION A-A
SCALE 10x



SECTION B-B

CONNECTION TABLE	
4.0E	1.60
3.91	1.50
2.84	1.00
2.24	0.88
2.11	0.83
1.98	0.78
1.85	0.73
1.72	0.68
1.52	0.60
1.38	0.55
1.25	0.50
1.13	0.45
1.01	0.40
0.90	0.35
0.80	0.30
0.70	0.25
0.60	0.20
0.50	0.15
0.40	0.10
0.30	0.05
0.20	0.00

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AMP
COMMUNICATIONS DIVISION
PHILADELPHIA, PA. 19104-3000

PH BRZ TIN NYLON-VL84V-C, BLUE

1586005-1

DATE: 1-78

BY: [Signature]

CHKD: [Signature]

APP'D: [Signature]

DESIGNER: [Signature]

DRWING NO: [Signature]

REV. 1

REV. 2

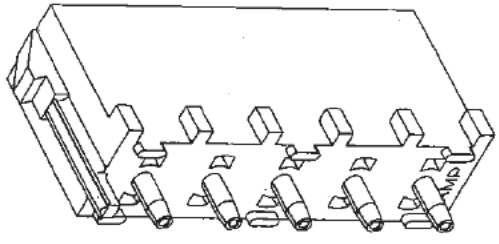
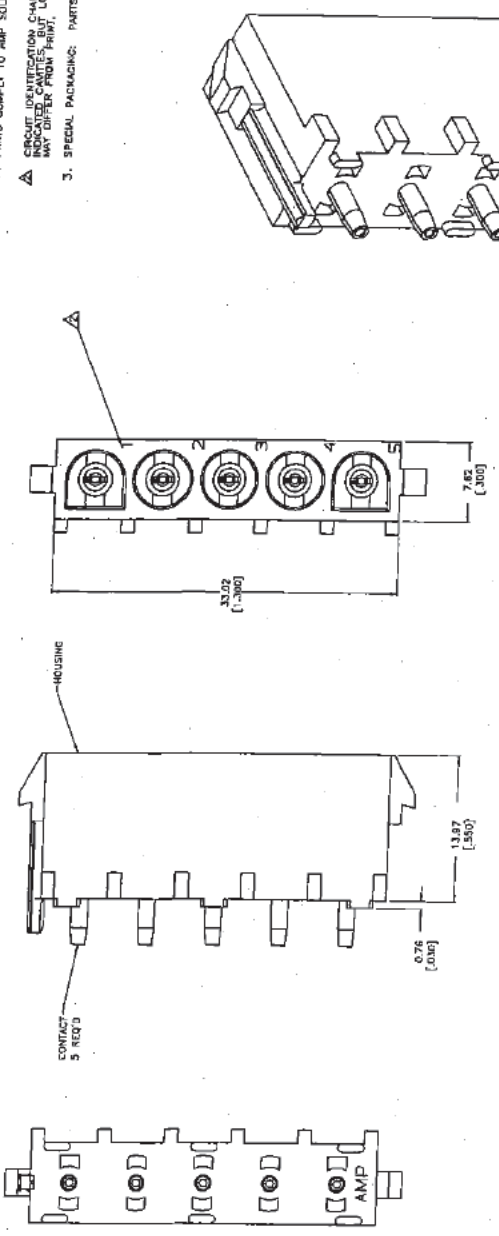
REV. 3

REV. 4

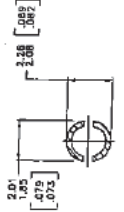


CM	CO	DR	IN	FL	FR

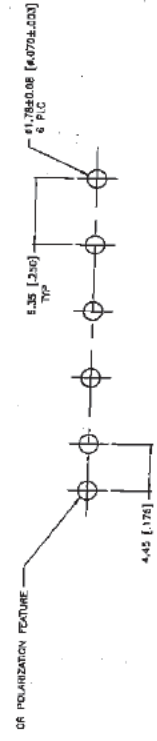
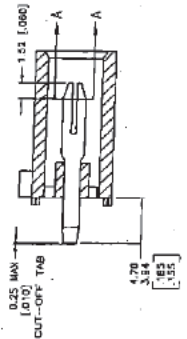
- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-13.
- 2. ⚠️ CIRCUIT INDICATORS CHARACTERISTICS ARE ADJACENT TO THE INDICATED CAVITIES BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. SPECIAL PACKAGING: PARTS TO BE PACKAGED IN GPMA.



3-DIMENSIONAL MODEL
NTS



SECTION A-A
SCALE 10:1



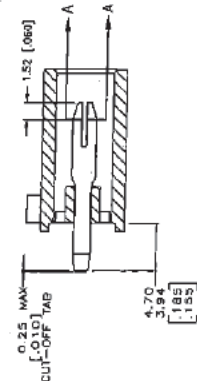
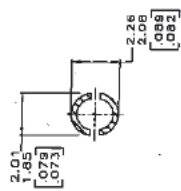
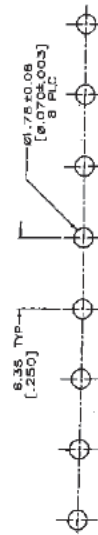
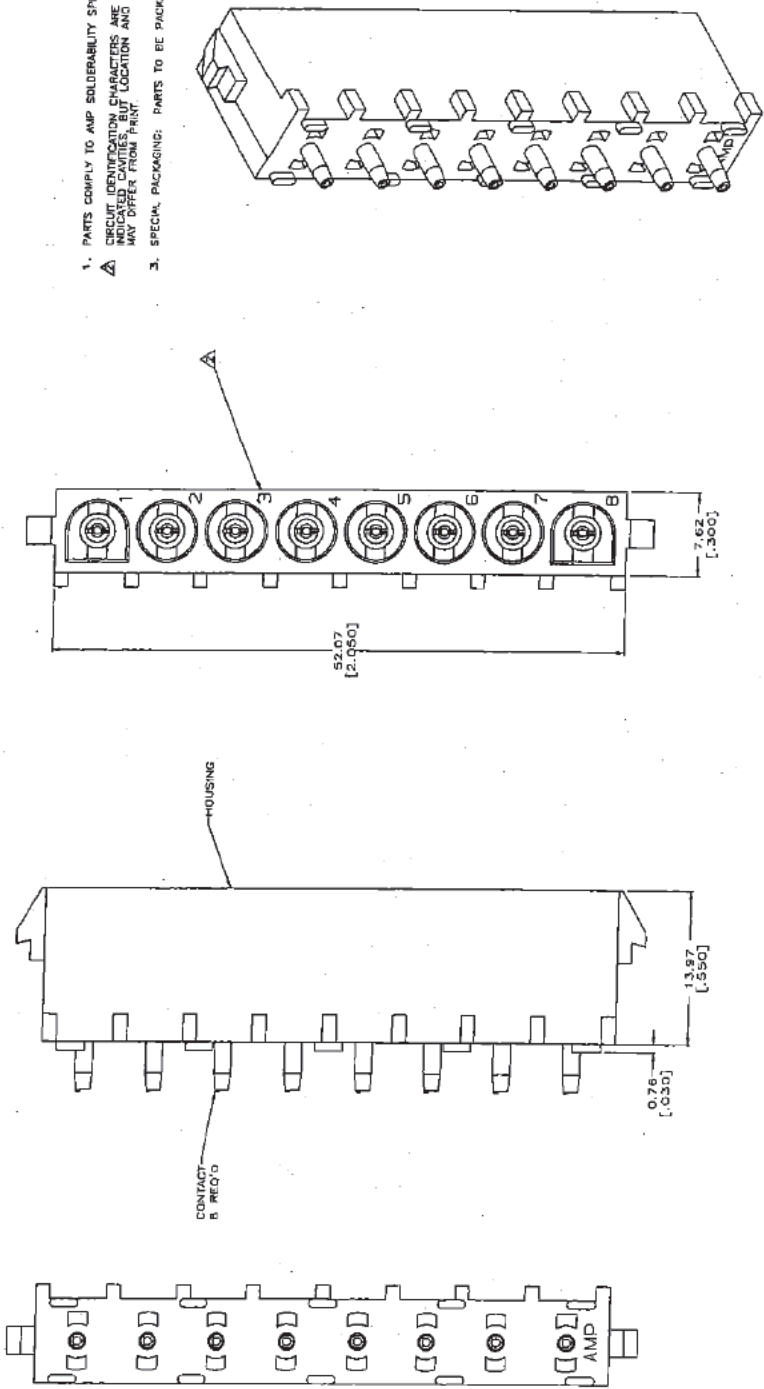
RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 [62] THICK P.C. BOARD



PHOSPHOR BRONZE, PRE-TIN PA CONTACT MATERIAL AND FINISH	NYLON, UL94V-2, NATURAL HOUSING MATERIAL	15B5051-1 PART NUMBER
THE DRAWING IS A CONTROL DRAWING		
DATE: 08-17-70	DESIGNER: J. B. BROWN	DATE: 08-17-70
CHECKED: J. B. BROWN	APPROVED: J. B. BROWN	DATE: 08-17-70
ENGINEER: J. B. BROWN	SCALE: 1:1	DATE: 08-17-70
DRAWN: J. B. BROWN	SIZE: 3/4"	DATE: 08-17-70
DATE: 08-17-70	TIME: 10:10	DATE: 08-17-70
BY: J. B. BROWN	BY: J. B. BROWN	DATE: 08-17-70
APP'D: J. B. BROWN	APP'D: J. B. BROWN	DATE: 08-17-70
CHECKED: J. B. BROWN	CHECKED: J. B. BROWN	DATE: 08-17-70
DATE: 08-17-70	DATE: 08-17-70	DATE: 08-17-70

CM 100	D	RELEASED	08/10/58
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1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE CONTACT CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. SPECIAL PACKAGING: PARTS TO BE PACKAGED IN GPAX.

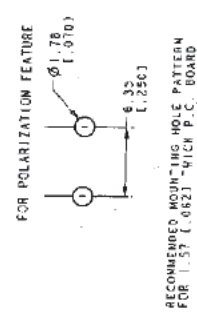
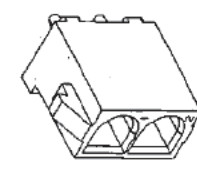
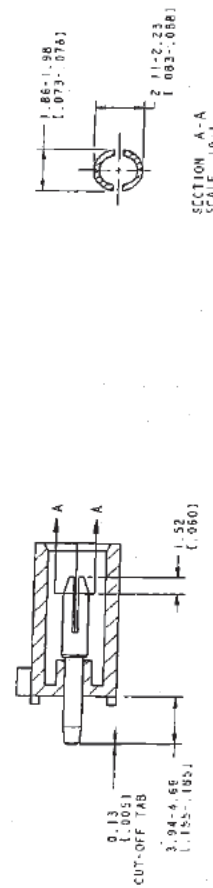
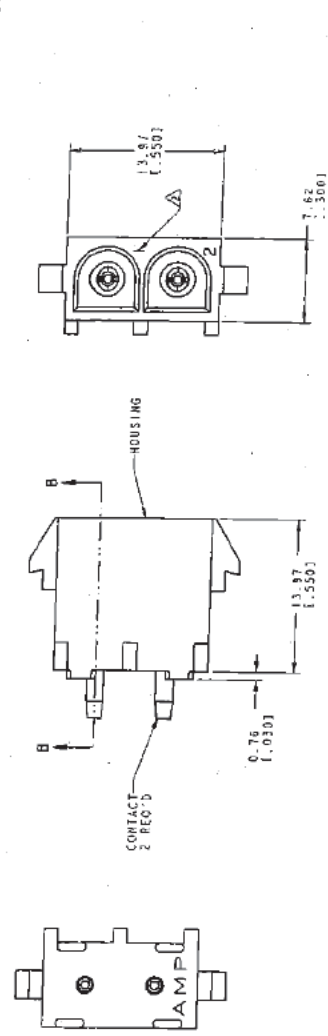


PHOSPHOR BRONZE, PRE-TIN	NYLON LUL9AV-2, NATURAL	15SR8052-1
FIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL	PART NUMBER
SEE REFERENCE AT 7 CONTACTS CONTAINER.	SEE REFERENCE AT 7 CONTACTS CONTAINER.	SEE REFERENCE AT 7 CONTACTS CONTAINER.
DATE 12/22/58	DATE 12/22/58	DATE 12/22/58
BY J.B. HALL	BY J.B. HALL	BY J.B. HALL
CHECKED BY J.B. HALL	CHECKED BY J.B. HALL	CHECKED BY J.B. HALL
APPROVED BY J.B. HALL	APPROVED BY J.B. HALL	APPROVED BY J.B. HALL
DATE FOR CASE 01/11/59	DATE FOR CASE 01/11/59	DATE FOR CASE 01/11/59
BY J.B. HALL	BY J.B. HALL	BY J.B. HALL
DATE 01/11/59	DATE 01/11/59	DATE 01/11/59
BY J.B. HALL	BY J.B. HALL	BY J.B. HALL



REV	DATE	BY	CHKD	APP'D
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- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.

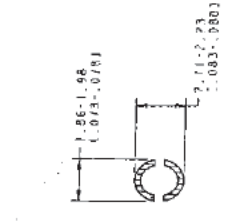
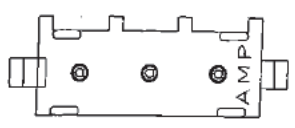
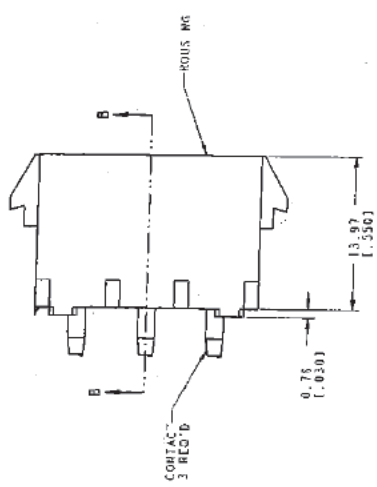
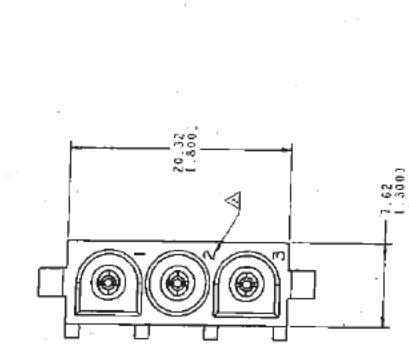


PROSPOR BIRONZE, POC TIN	NYLON 6/6-3AV 2, NATURAL	1596076 1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
MANUFACTURER	MANUFACTURER	MANUFACTURER
DATE	DATE	DATE
REV	DATE	BY
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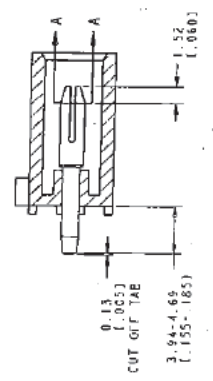


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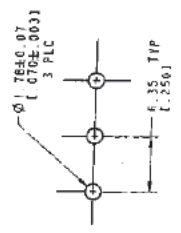
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



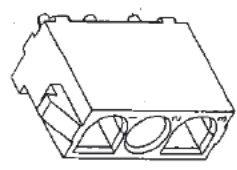
SECTION A-A
SCALE 10:1



SECTION B-B



RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 (1.002) THICK P.C. BOARD




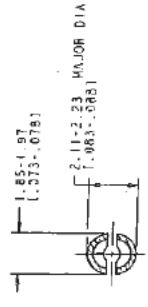
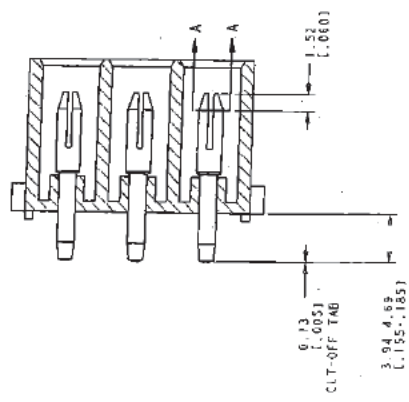
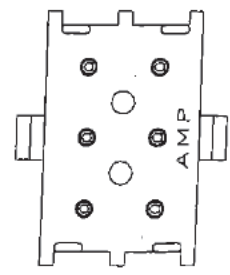
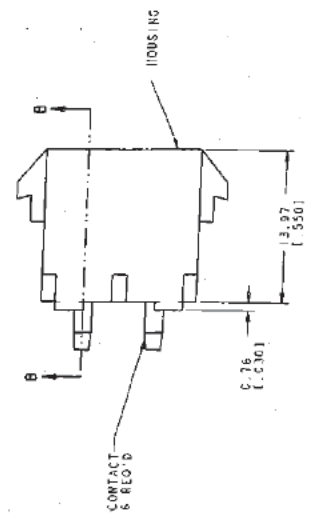
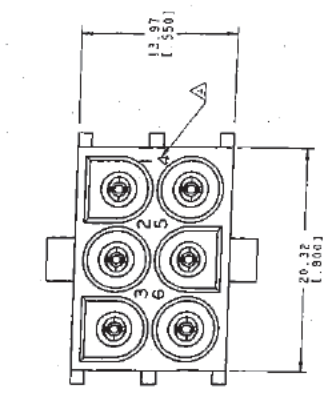
3 DIMERS ORAL MODEL
SCALE 4:1

PROSPON B007C, PRE TIN	NYLON, UL94V-2, NATURAL	1580073
P II CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
DESIGN	DATE	REV
1	11/13/73	1
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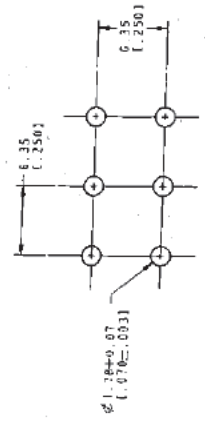
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- 1 PARTS MATR WITH HOUSING 280704
- 2 PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 103-11-3.
- 3 PARTS MOLDED WITHOUT BRAIN HOLES.
- 4  CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT
- 5 DIMENSIONS IN BRACKETS ARE IN INCHES.

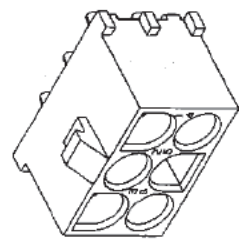


SECTION A-A
SCALE 10:1


SECTION B-B



RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.51 [(.062)] THICK P.C. BOARD

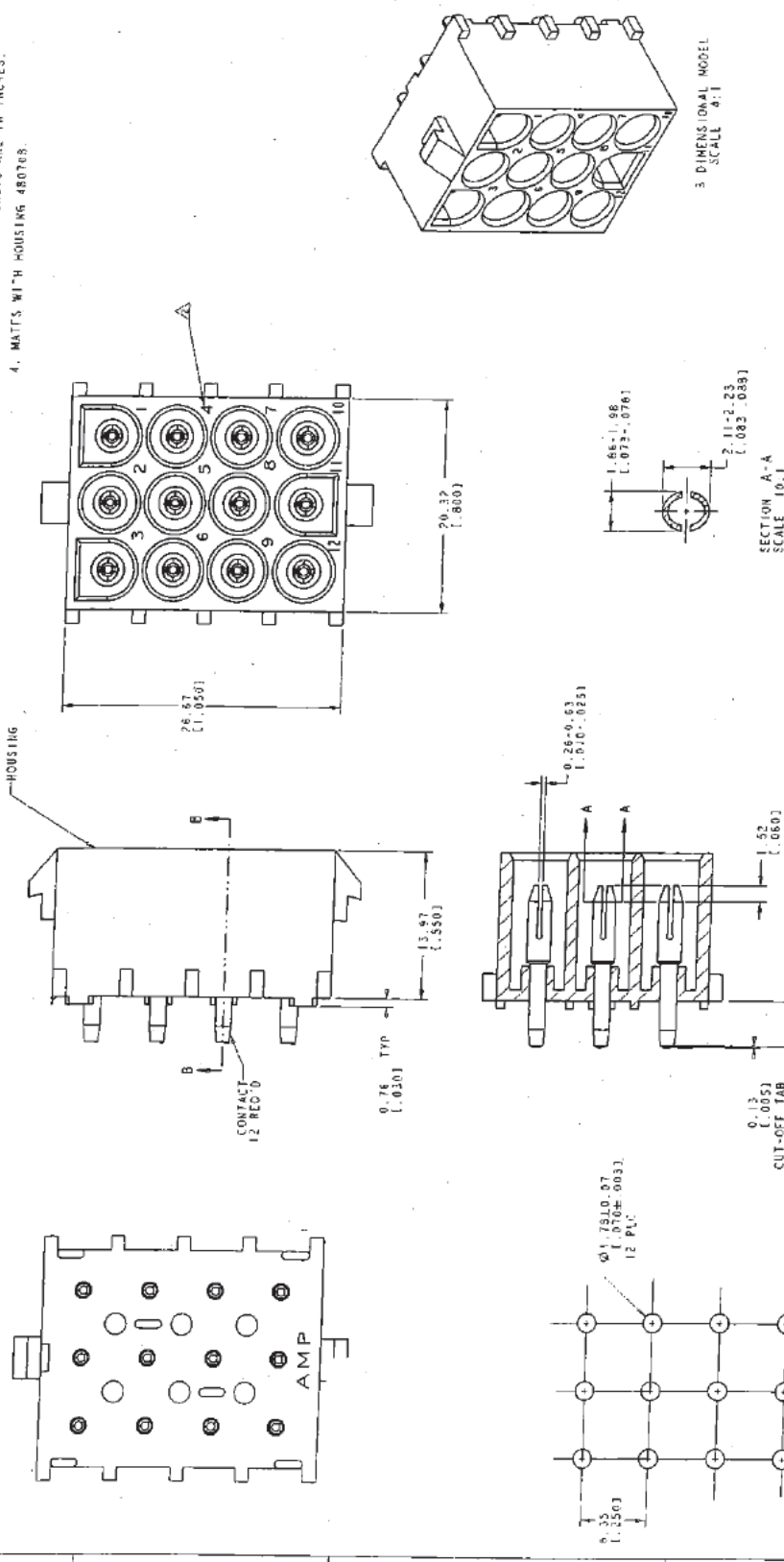


3-D ISOMETRIC MODEL
SCALE 4:1

PHOSFOR BRONZE, PRE-TIN	NYLON, UL94V-2, NATURAL	1586375-1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
MFG. PART NO. MFG. NAME MFG. CITY MFG. STATE MFG. COUNTRY	MFG. PART NO. MFG. NAME MFG. CITY MFG. STATE MFG. COUNTRY	MFG. PART NO. MFG. NAME MFG. CITY MFG. STATE MFG. COUNTRY
		
PIN HEADER ASSEMBLY UNIVERSAL, WATE-H-LCR™ UNIVERSAL, WATE-H-LCR™ UNIVERSAL, WATE-H-LCR™		
MFG. PART NO. MFG. NAME MFG. CITY MFG. STATE MFG. COUNTRY	MFG. PART NO. MFG. NAME MFG. CITY MFG. STATE MFG. COUNTRY	MFG. PART NO. MFG. NAME MFG. CITY MFG. STATE MFG. COUNTRY

REV	DATE	BY	CHK	APP
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- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 199-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.
- 4. MATTS WITH HOUSING 480768.



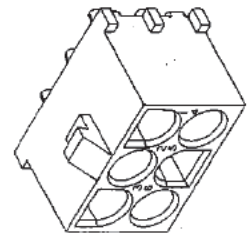
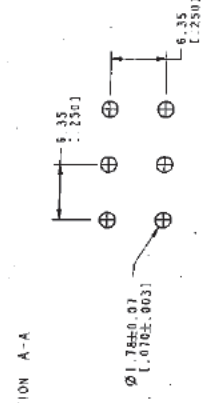
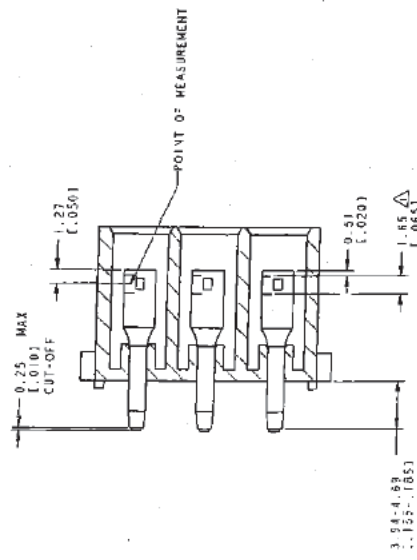
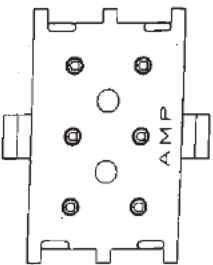
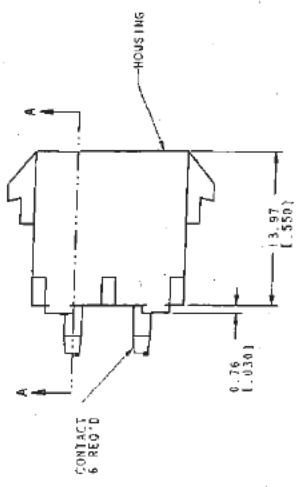
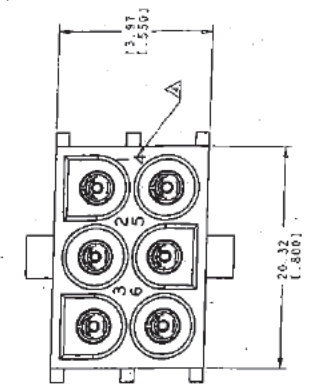
FINISH FOR BRONZE - PRE TIN	NYLON - UL94V-2 - NATURAL	1386079
FIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
1. MIL-SPEC	2. MIL-SPEC	3. MIL-SPEC
4. MIL-SPEC	5. MIL-SPEC	6. MIL-SPEC
7. MIL-SPEC	8. MIL-SPEC	9. MIL-SPEC
10. MIL-SPEC	11. MIL-SPEC	12. MIL-SPEC
13. MIL-SPEC	14. MIL-SPEC	15. MIL-SPEC
16. MIL-SPEC	17. MIL-SPEC	18. MIL-SPEC
19. MIL-SPEC	20. MIL-SPEC	21. MIL-SPEC
22. MIL-SPEC	23. MIL-SPEC	24. MIL-SPEC
25. MIL-SPEC	26. MIL-SPEC	27. MIL-SPEC
28. MIL-SPEC	29. MIL-SPEC	30. MIL-SPEC
31. MIL-SPEC	32. MIL-SPEC	33. MIL-SPEC
34. MIL-SPEC	35. MIL-SPEC	36. MIL-SPEC
37. MIL-SPEC	38. MIL-SPEC	39. MIL-SPEC
40. MIL-SPEC	41. MIL-SPEC	42. MIL-SPEC
43. MIL-SPEC	44. MIL-SPEC	45. MIL-SPEC
46. MIL-SPEC	47. MIL-SPEC	48. MIL-SPEC
49. MIL-SPEC	50. MIL-SPEC	51. MIL-SPEC
52. MIL-SPEC	53. MIL-SPEC	54. MIL-SPEC
55. MIL-SPEC	56. MIL-SPEC	57. MIL-SPEC
58. MIL-SPEC	59. MIL-SPEC	60. MIL-SPEC
61. MIL-SPEC	62. MIL-SPEC	63. MIL-SPEC
64. MIL-SPEC	65. MIL-SPEC	66. MIL-SPEC
67. MIL-SPEC	68. MIL-SPEC	69. MIL-SPEC
70. MIL-SPEC	71. MIL-SPEC	72. MIL-SPEC
73. MIL-SPEC	74. MIL-SPEC	75. MIL-SPEC
76. MIL-SPEC	77. MIL-SPEC	78. MIL-SPEC
79. MIL-SPEC	80. MIL-SPEC	81. MIL-SPEC
82. MIL-SPEC	83. MIL-SPEC	84. MIL-SPEC
85. MIL-SPEC	86. MIL-SPEC	87. MIL-SPEC
88. MIL-SPEC	89. MIL-SPEC	90. MIL-SPEC
91. MIL-SPEC	92. MIL-SPEC	93. MIL-SPEC
94. MIL-SPEC	95. MIL-SPEC	96. MIL-SPEC
97. MIL-SPEC	98. MIL-SPEC	99. MIL-SPEC
100. MIL-SPEC	101. MIL-SPEC	102. MIL-SPEC

METRIC

RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 (.062) THICK P.C. BOARD

REV	DATE	BY	CHKD
1	11/14/68	WJ	WJ
2	11/14/68	WJ	WJ
3	11/14/68	WJ	WJ
4	11/14/68	WJ	WJ
5	11/14/68	WJ	WJ

- 1. CONTACT IS STAMPED FROM PRE-PLATED STOCK WHICH IS PLATED OVERALL WITH 60/40 NICKEL. IT IS FINISHED WITH 0.0025 THICK GOLD IN CONTACT AREA INDICATED AND WATTE THIN ON SOLDER TAIL END.
- 2. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-3.
- 3. PARTS MOLDED WITHOUT DRAIN HOLES.
- 4. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 5. DIMENSIONS IN BRACKETS ARE IN INCHES.



3-D DIMENSIONAL MODEL
SCALE 4:1

PHOSPHOR BRONZE GOLD	NYLON, UL94V-2, NATURAL	1586085-1																								
P/N CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER																								
<table border="1"> <tr> <td>DESIGN</td> <td>DATE</td> <td>BY</td> <td>CHKD</td> </tr> <tr> <td>1586085-1</td> <td>11/14/68</td> <td>WJ</td> <td>WJ</td> </tr> </table>	DESIGN	DATE	BY	CHKD	1586085-1	11/14/68	WJ	WJ	<table border="1"> <tr> <td>DESIGN</td> <td>DATE</td> <td>BY</td> <td>CHKD</td> </tr> <tr> <td>1586085-1</td> <td>11/14/68</td> <td>WJ</td> <td>WJ</td> </tr> </table>	DESIGN	DATE	BY	CHKD	1586085-1	11/14/68	WJ	WJ	<table border="1"> <tr> <td>DESIGN</td> <td>DATE</td> <td>BY</td> <td>CHKD</td> </tr> <tr> <td>1586085-1</td> <td>11/14/68</td> <td>WJ</td> <td>WJ</td> </tr> </table>	DESIGN	DATE	BY	CHKD	1586085-1	11/14/68	WJ	WJ
DESIGN	DATE	BY	CHKD																							
1586085-1	11/14/68	WJ	WJ																							
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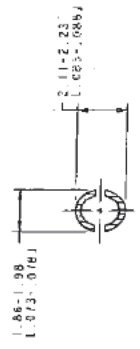
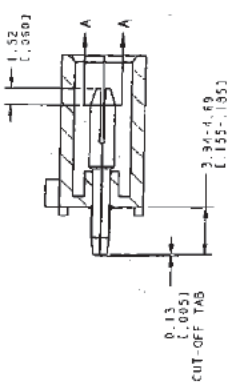
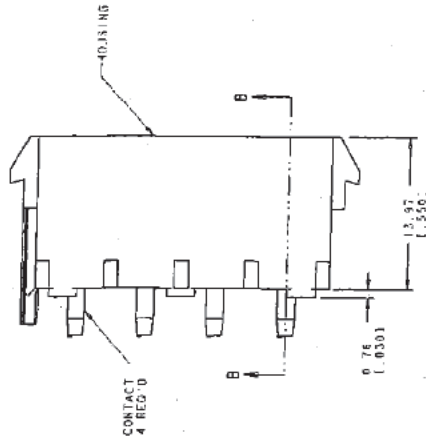
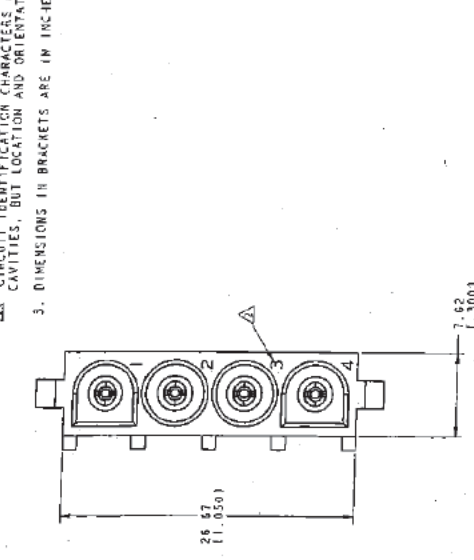


RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.17 (0.125) THICK P.C. BOARD

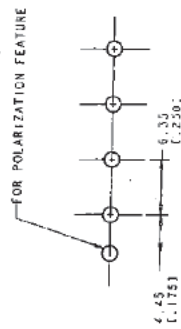
1586085-1

REV	DATE	BY	CHK
1			
2			

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.

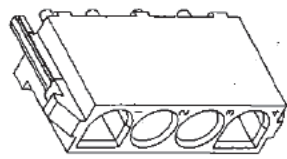
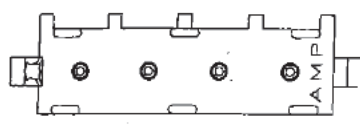


SECTION A-A
SCALE 10:1



FOR POLARIZATION FEATURE

RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 (.062) THICK P.C. BOARD



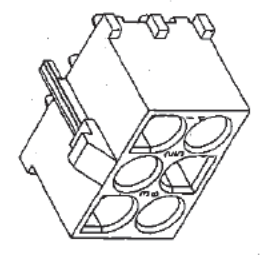
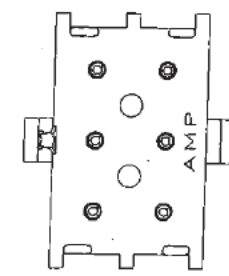
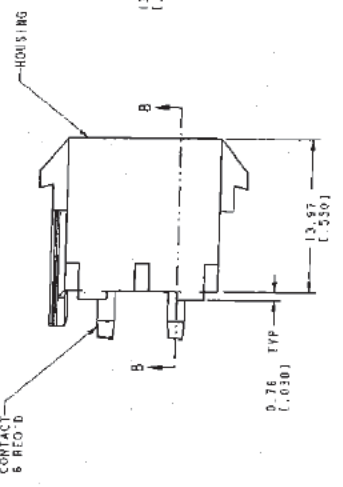
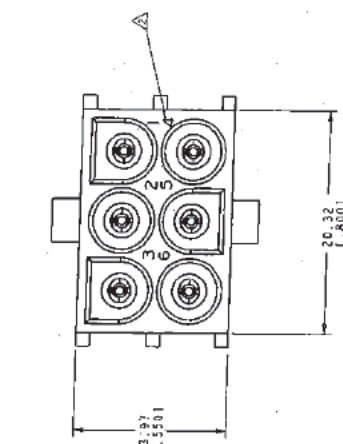
3 DIMENSIONAL MODEL
SCALE 4:1

PIN CONTACT MATERIAL AND FINISH	NYLON 6/66 OR 6/6	NATURAL	ISBSCORE 1
HOUSING MATERIAL AND COLOR			
PLATING			
FINISH			
MANUFACTURER'S PART NUMBER			
DATE			
DESIGNED BY			
CHECKED BY			
APPROVED BY			
DATE			
PROJECT	POLARIZATION ASSEMBLY		
UNIVERSAL MATERIALS	UNIVERSAL MATERIALS		
UNIVERSAL MATERIALS	UNIVERSAL MATERIALS		
UNIVERSAL MATERIALS	UNIVERSAL MATERIALS		
UNIVERSAL MATERIALS	UNIVERSAL MATERIALS		
UNIVERSAL MATERIALS	UNIVERSAL MATERIALS		

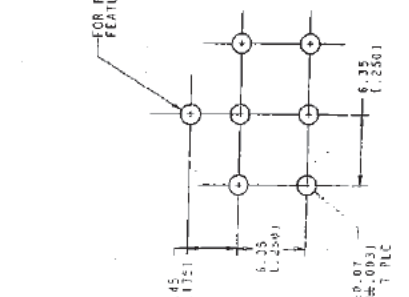
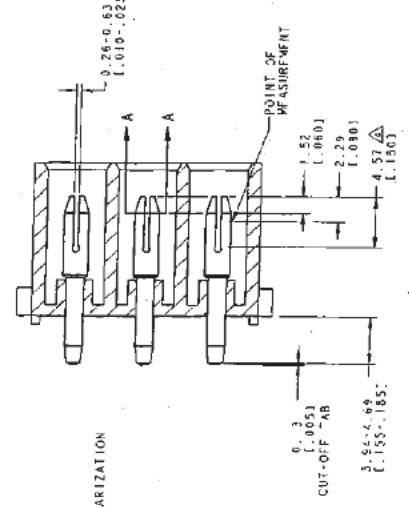
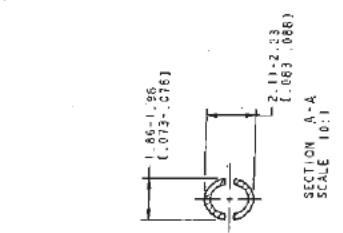


CM 100	REV	DATE
C	REVISED	12 19 63

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.
4. CONTACT IS PLATED OVERALL WITH 0.00127 (0.00050) NICKEL, THEN 0.00076 (0.00030) GOLD OVER CONTACT LENGTH INDICATED AND WHITE TIN ON SOLDER TAIL END.



3 DIMENSIONAL MODEL
SCALE 4:1



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.27 (.051) THICK P.C. BOARD

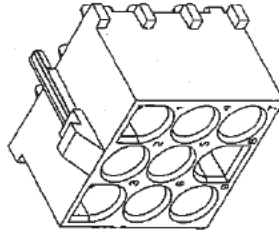
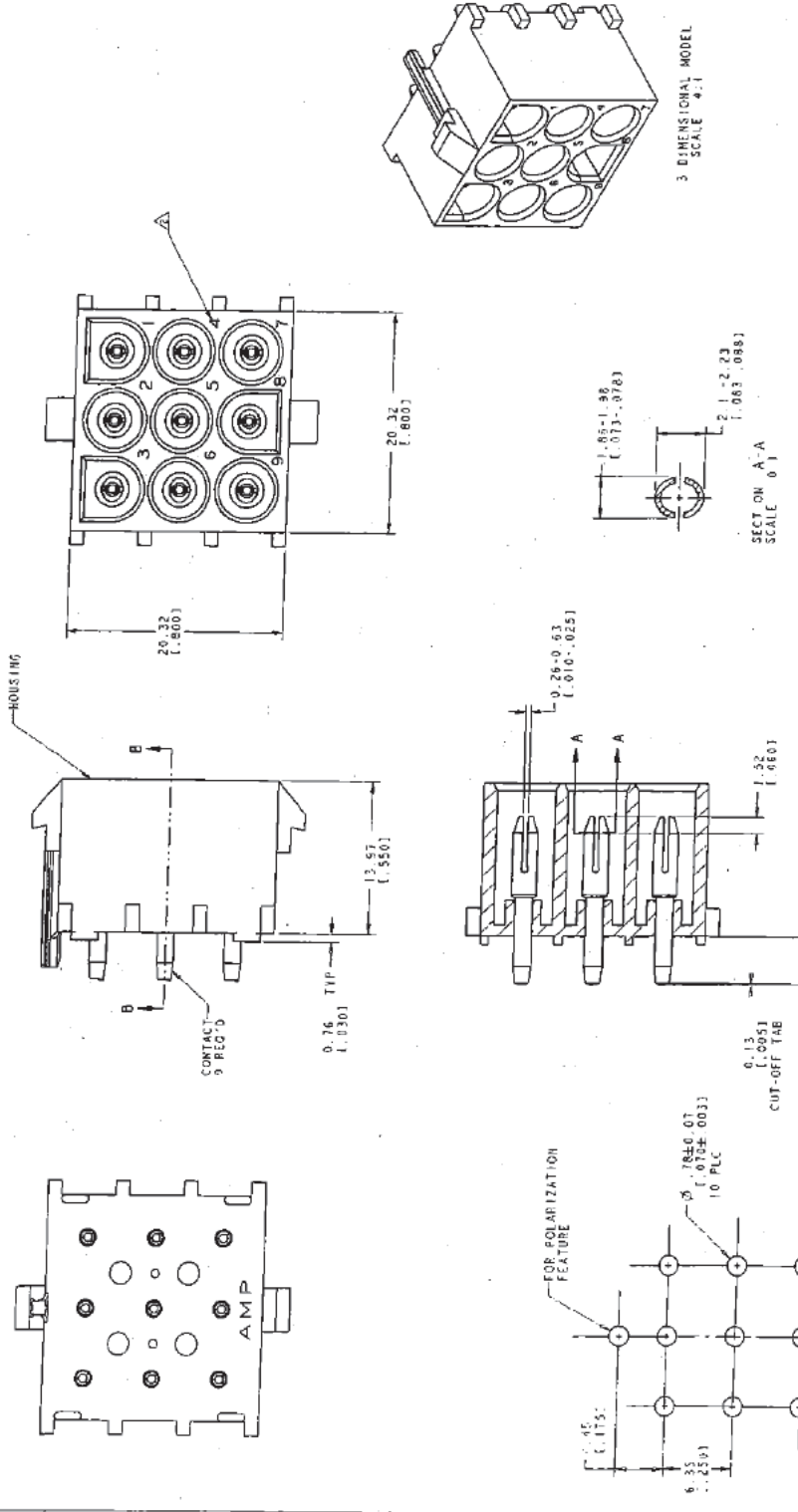
MATERIAL	FINISH	PROCESS	REF. DIM
HOUSING	BRONZE, GOLD	2	20.32
CONTACT	BRONZE, GOLD	2	13.97
HOUSING MATERIAL AND FINISH	NYLON, UL94V-2, NATURAL	1	20.32
PIN CONTACT MATERIAL AND COLOR	NYLON, UL94V-2, NATURAL	1	13.97



11-DIMENSIONAL MODEL

CM 80	1	2	3	4
C	REVISED			
C	REVISED			

- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.



3 DIMENSIONAL MODEL
SCALE 4:1

MATERIAL	PHOSFOR BRONZE, PRC T IN	FINISH	NILON, UL 94V 2, NATURAL
CONTACT MATERIAL	PHOSFOR BRONZE, PRC T IN	CONTACT FINISH	WATER-SOLUBLE FLUX
ASSEMBLY	UL-94V-2	ASSEMBLY	
PROJ		DESIGN	
DATE		REV	
ISSUED BY		APPROVED BY	
DRAWN BY		CHECKED BY	
DATE		DATE	
REVISION		REVISION	

METRIC

REV	DATE	BY	CHKD
1			
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18			
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- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.

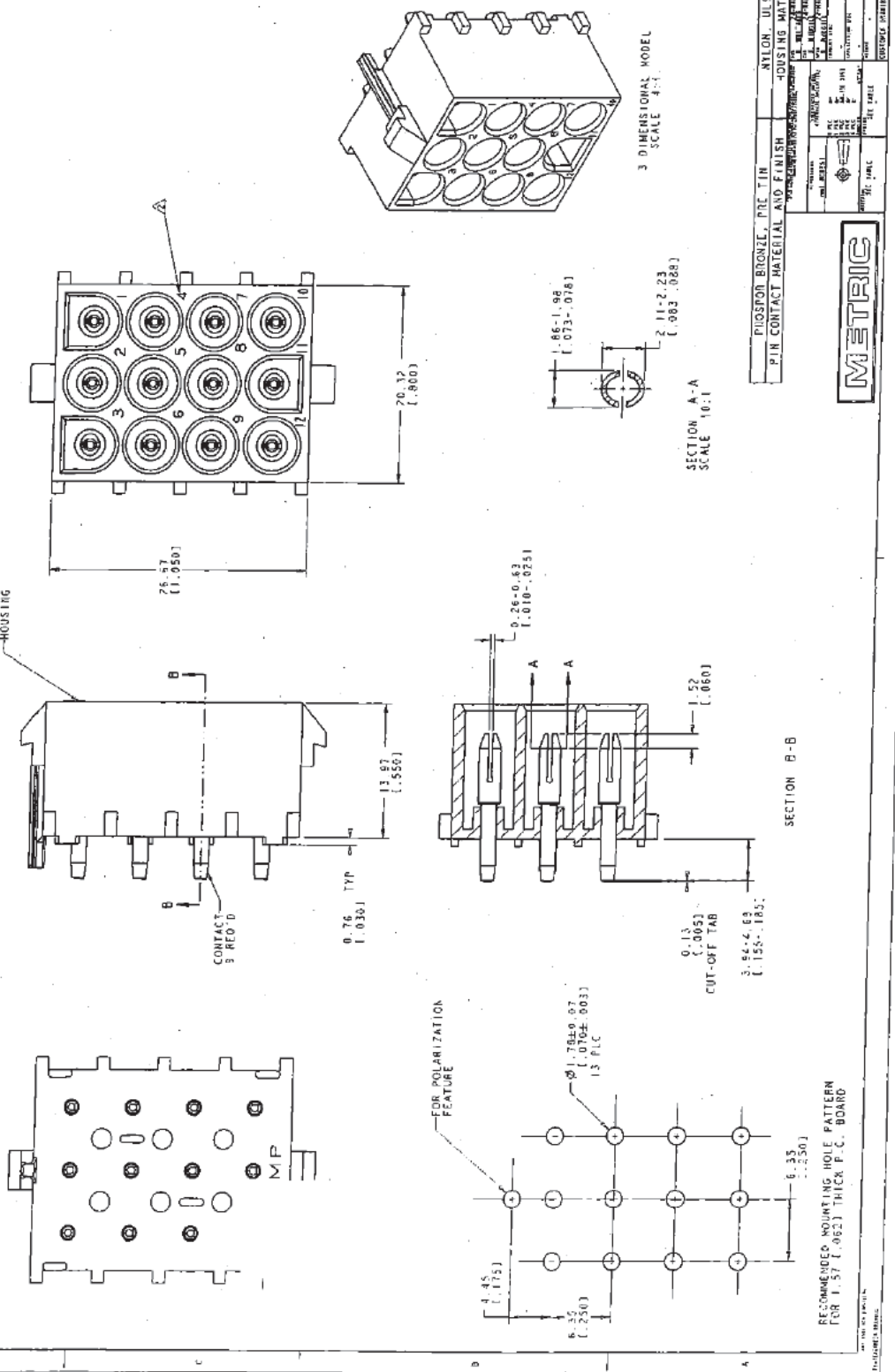
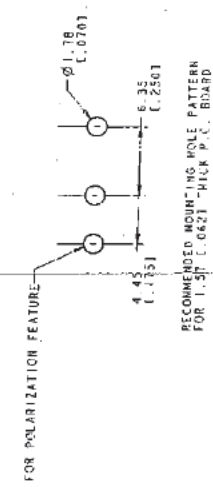
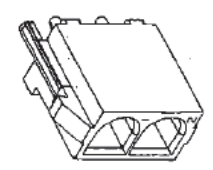
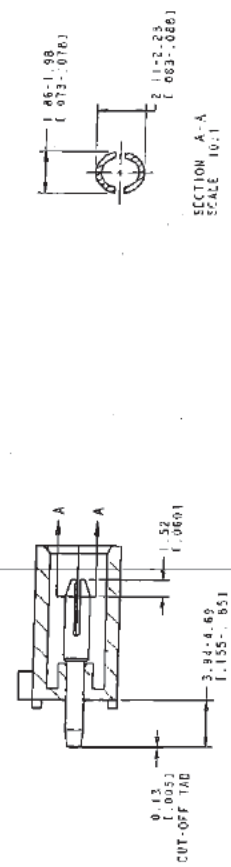
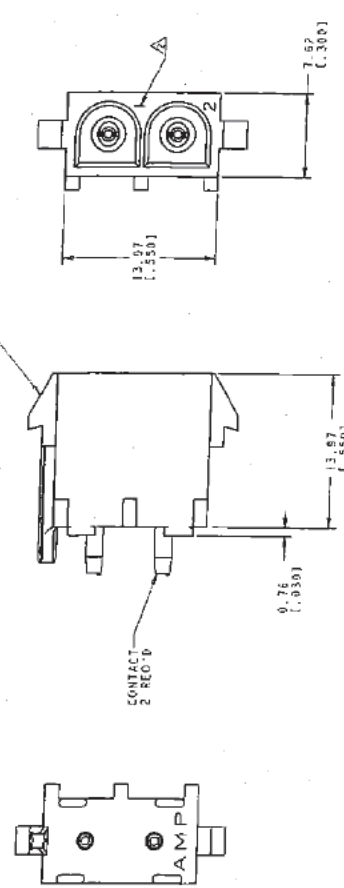


FIG 189
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	CHKD	APP'D
1				
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- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.

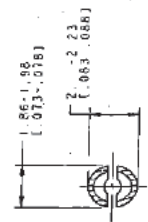
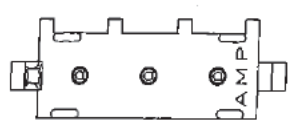
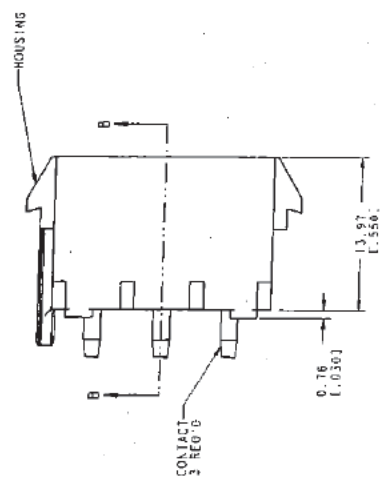
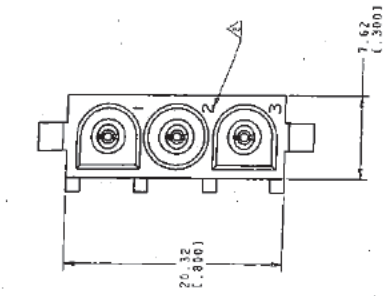


FINGERBOR BRONZE, PBC TIN		NYLON, UL94V-2, NATURAL		1565137.1	
PIN CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR		PART NUMBER	
MATERIAL: FINGERBOR BRONZE, PBC TIN		MATERIAL: NYLON, UL94V-2, NATURAL		REV. 1	
FINISH: 100% TIN		COLOR: NATURAL		DATE: 11/18/73	
DRAWN: J. H. BULL		CHECKED: J. H. BULL		APPROVED: J. H. BULL	
SCALE: 10:1		SCALE: 10:1		SCALE: 10:1	
PROJECT: 70070692		PROJECT: 70070692		PROJECT: 70070692	
SHEET: 1 OF 1		SHEET: 1 OF 1		SHEET: 1 OF 1	
TITLE: AMP HEADERS ASSEMBLY		TITLE: AMP HEADERS ASSEMBLY		TITLE: AMP HEADERS ASSEMBLY	
PART: 1565137.1		PART: 1565137.1		PART: 1565137.1	
REV: 1		REV: 1		REV: 1	

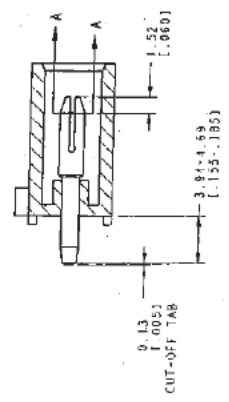


REV	DATE	BY	CHKD
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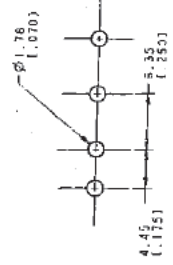
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.



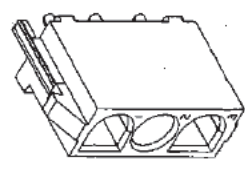
SECTION A-A
SCALE 10:1



SECTION B-B



RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 (0.062) THICK P.C. BOARD



3-DIMENSIONAL MODEL
SCALE 3:1

DESIGNER	DATE	REV	BY	CHKD
<p>PIN HEADER BRONZE, PINE TIN PIN CONTACT MATERIAL AND FINISH MILION, UL94V-2, NATURAL HOUSING MATERIAL AND COLOR 1588136-1 FAST NUMBER</p>				
<p>METRIC</p>				
<p>PIN HEADER ASSEMBLY POLARIZED: 3 CIRCUIT, TWO DRAIN HOLES, TOP CONTACT, UNIVERSAL, WATER-LOTTED</p>				

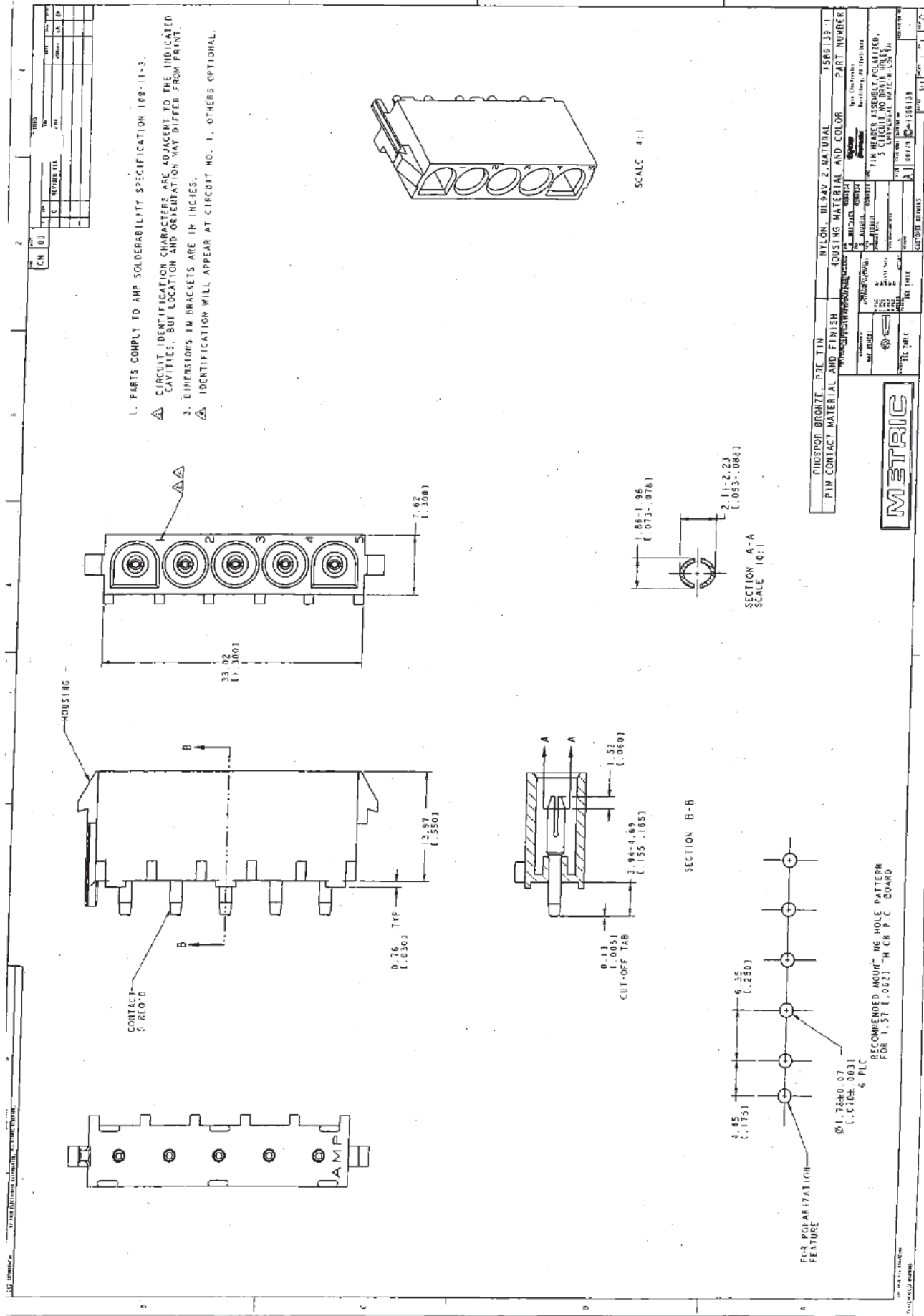
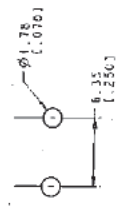
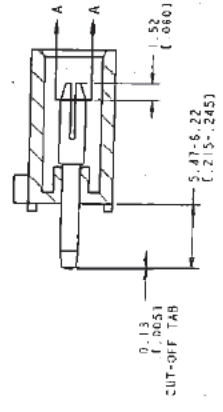
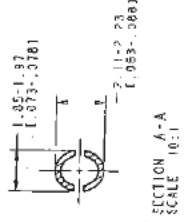
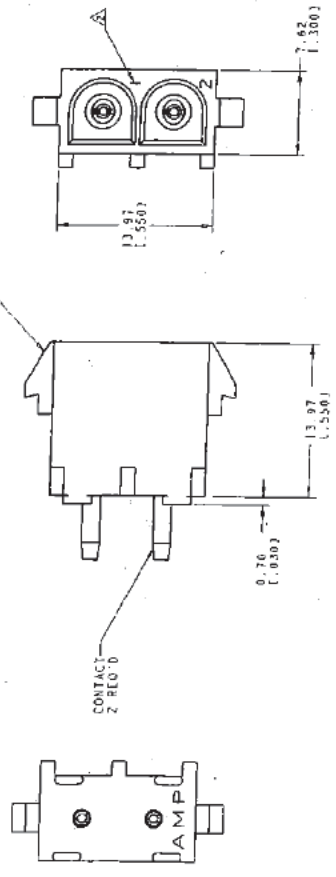


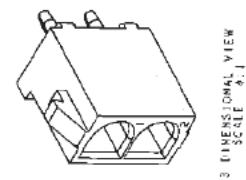
FIG 192
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

CM 500	1	2
CM 500	1	2
CM 500	1	2
CM 500	1	2
CM 500	1	2

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION-100-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



RECOMMENDED MOUNTING HOLE PATTERN FOR 3.18 (.125) TRICK P.C. BOARD

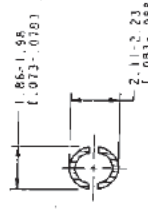
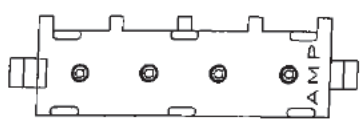
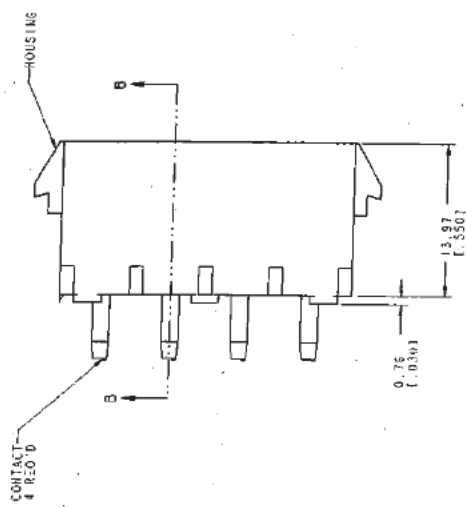
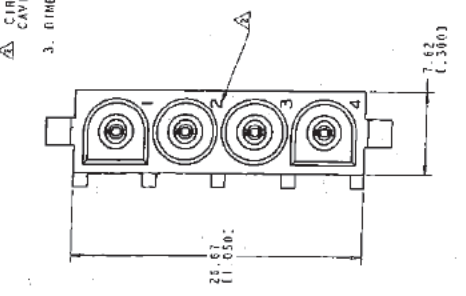


METRIC

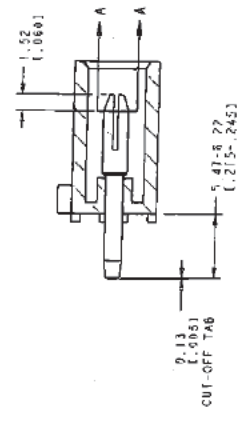
PHOSPOR BRONZE - 70% TIN		NYLON - UL94V 2 - NATURAL	ISS# 143
PIN CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR	PART NUMBER
HOUSING FINISH		HOUSING COLOR	
CONTACT FINISH			
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	
MATERIAL SPECIFICATION		DESIGNATION	

REV	DATE	BY	CHKD
1	10/11/58	W. J.
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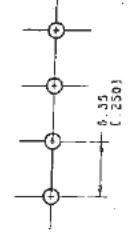
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.



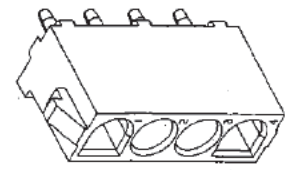
SECTION A-A
SCALE 10:1



SECTION B-B



RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.18 (0.125) THICK P.C. BOARD



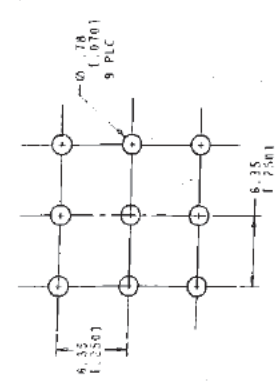
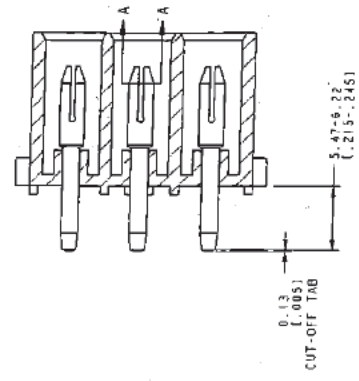
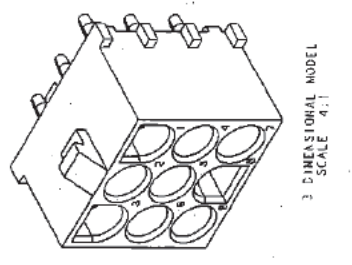
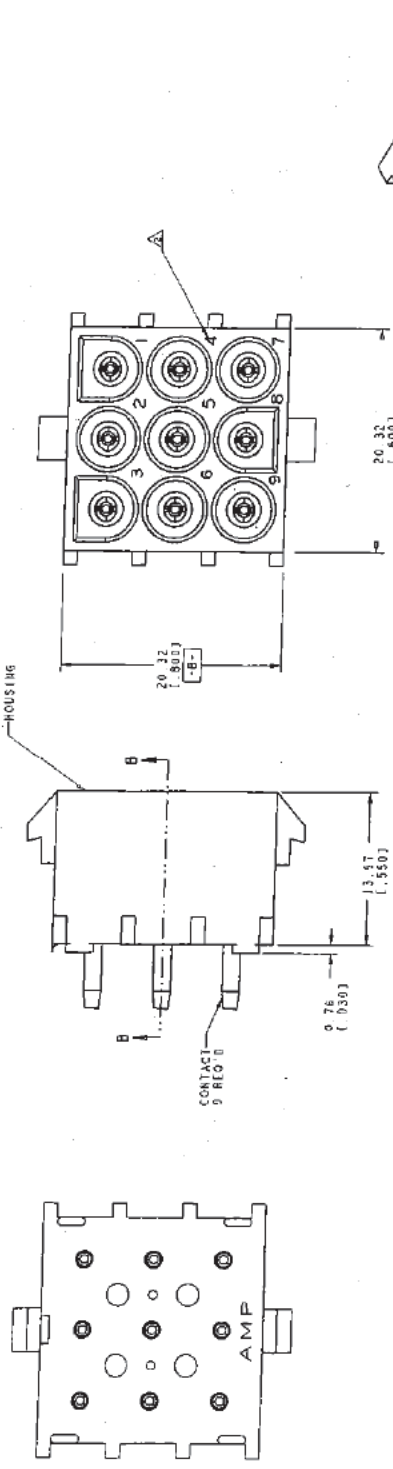
3 DIMENSIONAL MODEL
SCALE 3:1

DESIGNATION	1566145-1		
PART NUMBER	1566145-1		
DESCRIPTION	4 CONTACT PIN HEADER ASSEMBLY		
QUANTITY	1		
DATE	10/11/58		
BY	W. J. ...		
CHKD	...		
APPROVED	...		
REVISIONS			
REV	DATE	BY	CHKD
1	10/11/58	W. J.

METRIC

REV.	DATE	BY	CHKD.
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1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-114-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



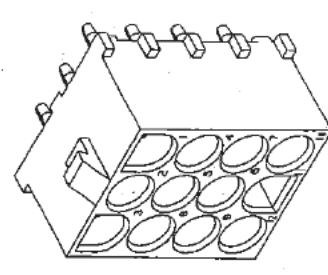
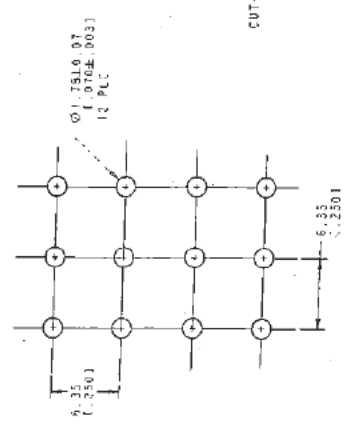
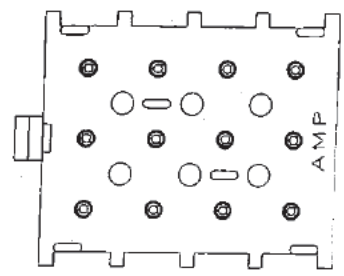
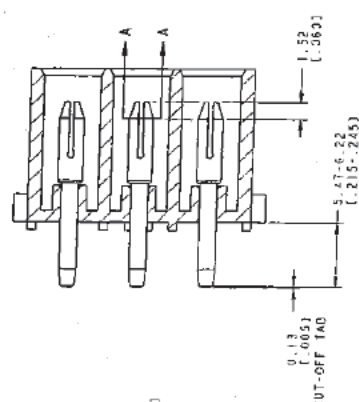
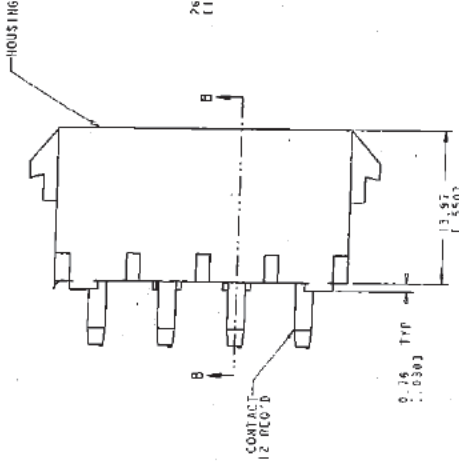
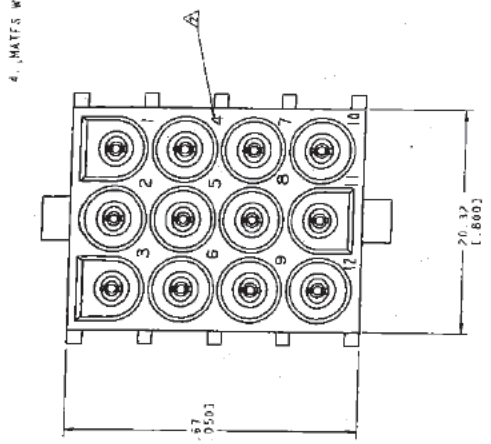
RECOMMENDED MOUNTING HOLE PATTERN FOR 3/16 (.125) THICK P.C. BOARD

DESIGNATOR	BRONZE	FINISH	PIN	NYLON	UL 94V-2	NATURAL	1586149 1
HOUSING MATERIAL AND COLOR							
PART NUMBER							
DESIGNED BY							
CHECKED BY							
DATE							
APPROVED BY							
SCALE							
WORKING DRAWING							
PROJECT							
DRAWING NO.							
REV.							
DATE							
BY							
CHKD.							
DATE							
BY							
CHKD.							
DATE							
BY							
CHKD.							
DATE							
BY							
CHKD.							
DATE							
BY							
CHKD.							
DATE							



REV	DATE	BY	CHK
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10			

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.
- 4. MATES WITH HOUSING 480705.



3 DIMENSIONAL MODEL
SCALE 4:1

SECTION A-A
SCALE 10:1

SECTION B-B

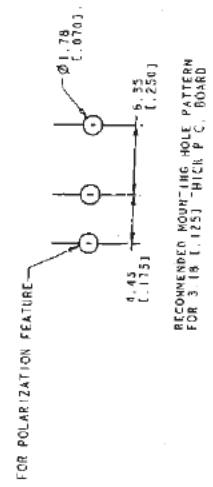
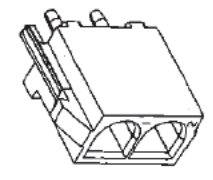
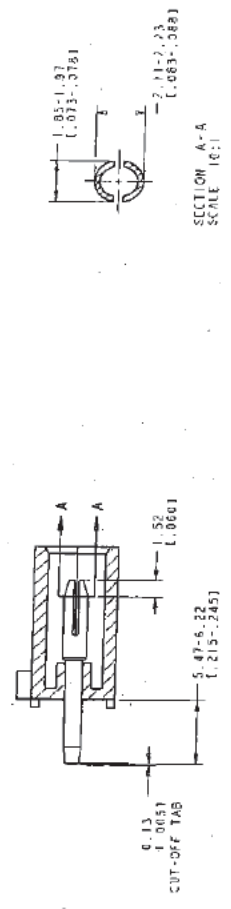
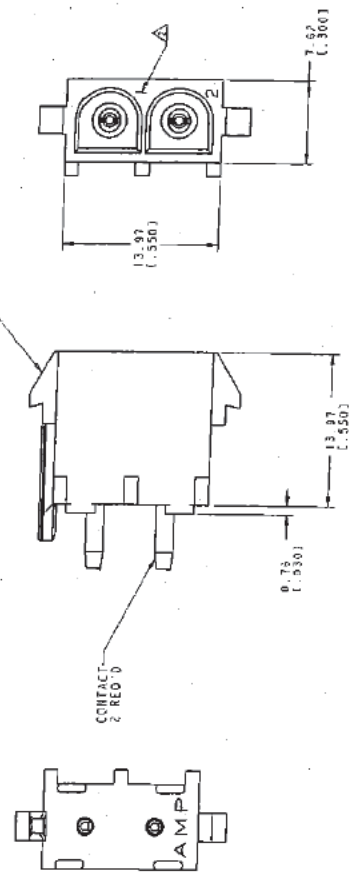
PHOSPHOR BRONZE	PIN IN	NYLON	GLASS	2. NATURAL	138215-1
PIN CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR		PART NUMBER	
12	PLC	12	PLC		
<p>APPROVED: [Signature]</p> <p>DATE: [Date]</p> <p>12 CIRCUIT P.C. BOARD P.C. BOARD</p> <p>12 CIRCUIT P.C. BOARD P.C. BOARD</p> <p>12 CIRCUIT P.C. BOARD P.C. BOARD</p>					
<p>DATE: [Date]</p> <p>SCALE: [Scale]</p> <p>CUTTING SHEET</p>					



RECOMMENDED MOUNTING HOLE PATTERN FOR 3.18 (0.125) THICK P.C. BOARD

LEN 00	REV	DATE	BY
	1		
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- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-2.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.

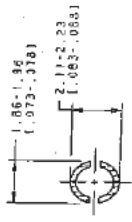
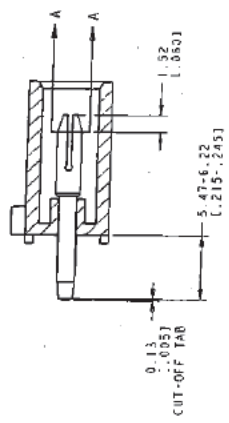
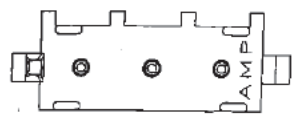
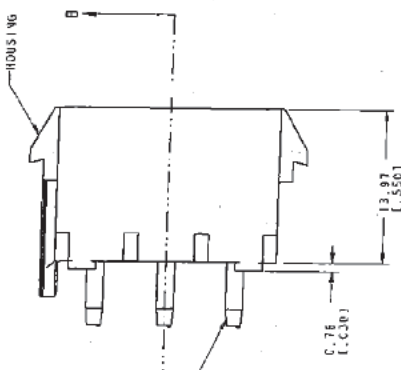


MATERIAL	PIGMENT	FINISH	PIN CONTACT MATERIAL AND COLOR	PART NUMBER
NYLON	UL94V-2	NATURAL	1586152-1	
<p>MANUFACTURED BY: METRIC ELECTRONICS, INC. (MILWAUKEE, WI, USA)</p> <p>DATE: 2017-01-15</p> <p>REV: 1</p>				

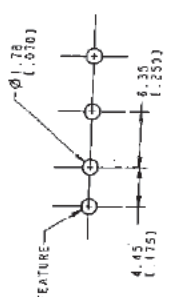


REV	DATE	BY	CHK	APP	DESC
CM 00		REVISED	AM		

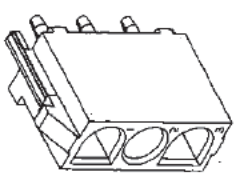
- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAPTITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION A-A
SCALE 10:1



RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.18 [1.253] THICK P.C. BOARD

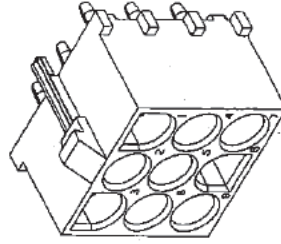
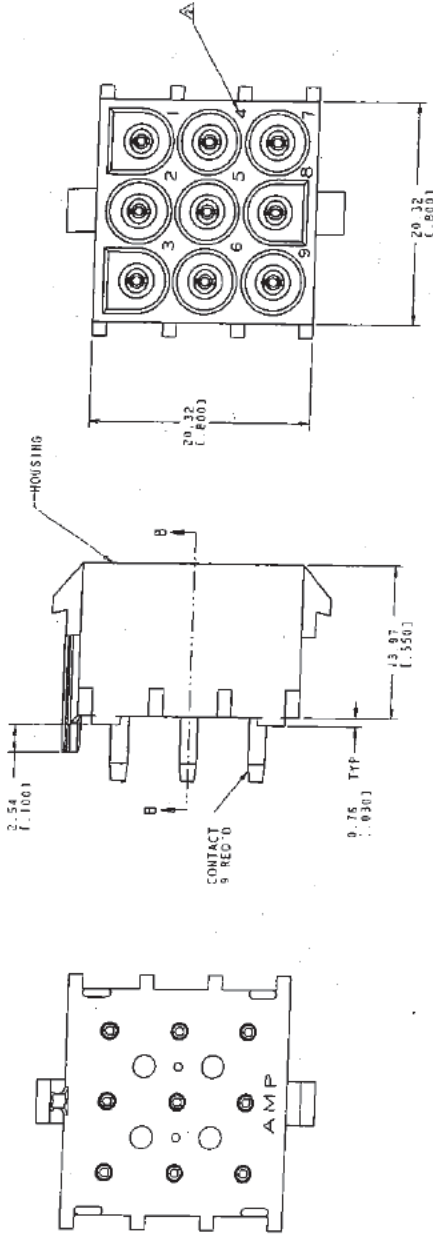


PIN CONTACT MATERIAL AND FINISH PHOSPHOR BRONZE, PIR TIN	HOUSING MATERIAL AND COLOR NILON, UL94V-2, NATURAL	PART NUMBER 1586153 1
MANUFACTURER METRIC	DESIGNER M. J. GIBSON	DRAWN BY M. J. GIBSON
CHECKED BY M. J. GIBSON	APPROVED BY M. J. GIBSON	DATE 12/10/61
TEST DATE	TEST PLACE	TEST RESULTS
ISSUE NO.	ISSUE DATE	ISSUE BY

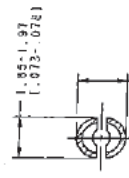
METRIC

REV	DATE	BY	CHKD
A	10-11-78	C	
B	10-11-78	C	
C	10-11-78	C	
D	10-11-78	C	

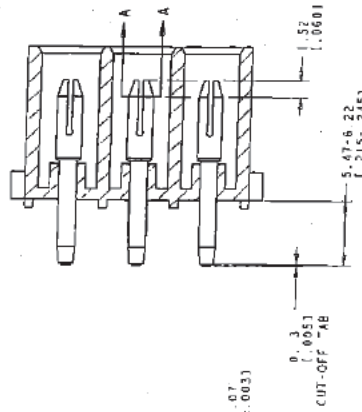
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-2.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.



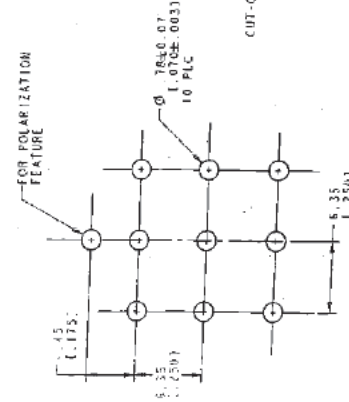
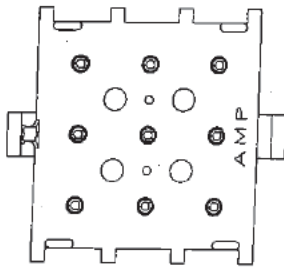
3-DIMENSIONAL MODEL
SCALE 4:1



SECT ON "A-A"
SCALE 10:1



SECTION B-B



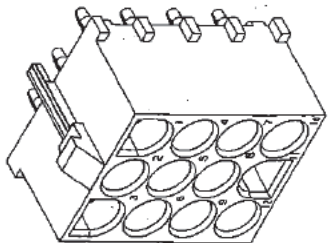
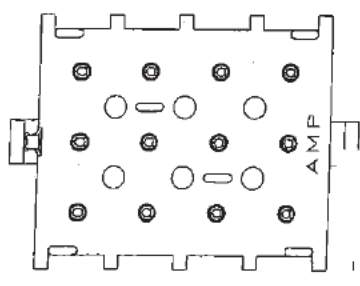
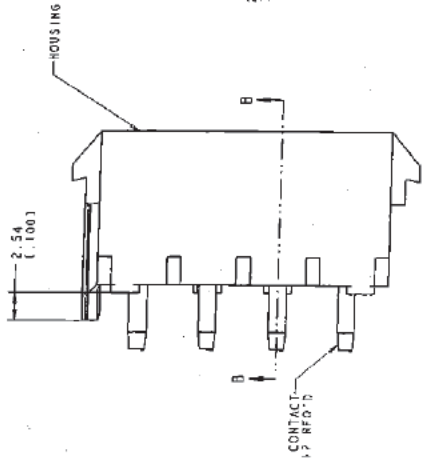
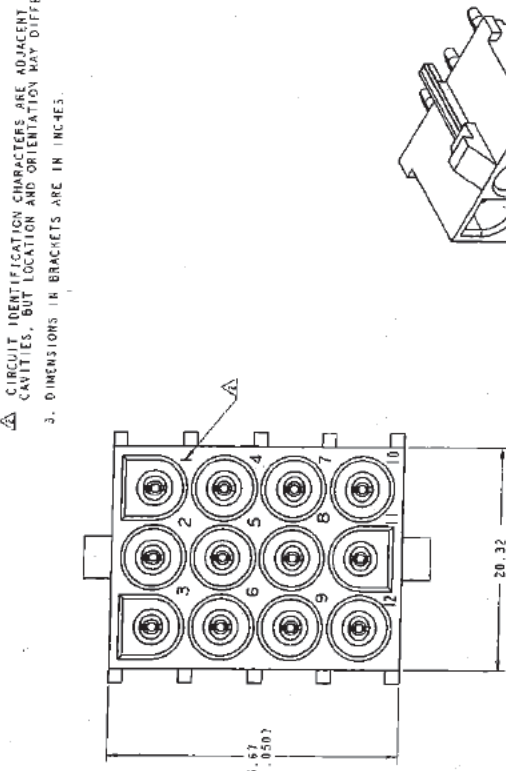
RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.18 (0.125) THICK P.C. BOARD

EPOXIPOL BRONZE, PRE TIN		NYLON, UL 94V-2, NATURAL		1386138 1
PIN CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR		PART NUMBER
MATERIAL		MATERIAL		
FINISH		FINISH		
SPECIFICATION		SPECIFICATION		
SOLDERABILITY		SOLDERABILITY		
SOLDERABILITY		SOLDERABILITY		
SOLDERABILITY		SOLDERABILITY		
SOLDERABILITY		SOLDERABILITY		
SOLDERABILITY		SOLDERABILITY		
SOLDERABILITY		SOLDERABILITY		
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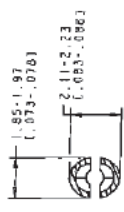
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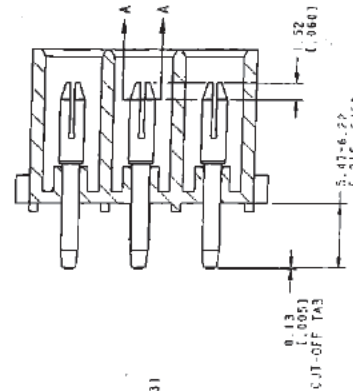
- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



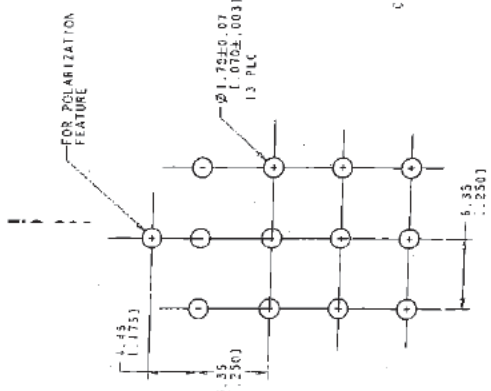
3 DIMENSIONAL MODEL
SCALE 1:1



SECTION A-A
SCALE 10:1



SECTION B-B



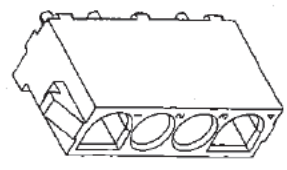
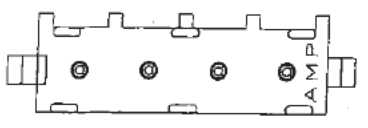
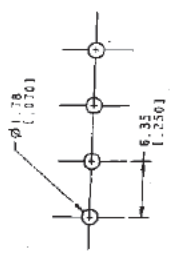
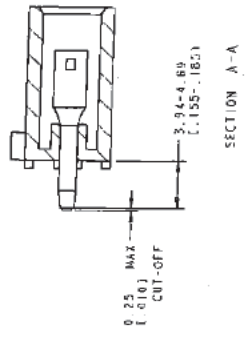
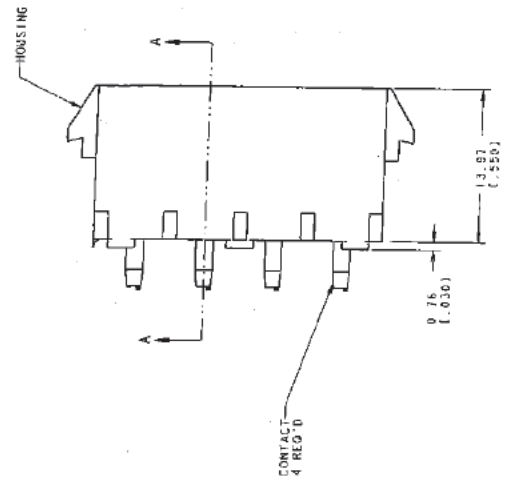
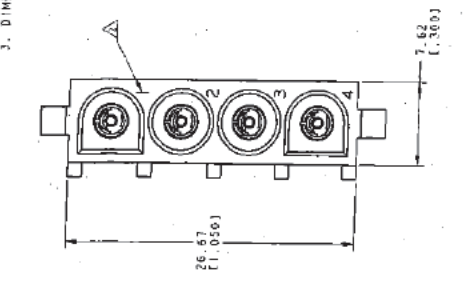
RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.18 (0.125) THICK P.C. BOARD.

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- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
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- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



PROSOPOR BRONZE, PRC TIN	NYLON, UL94V-2, NATURAL	1386200-1
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
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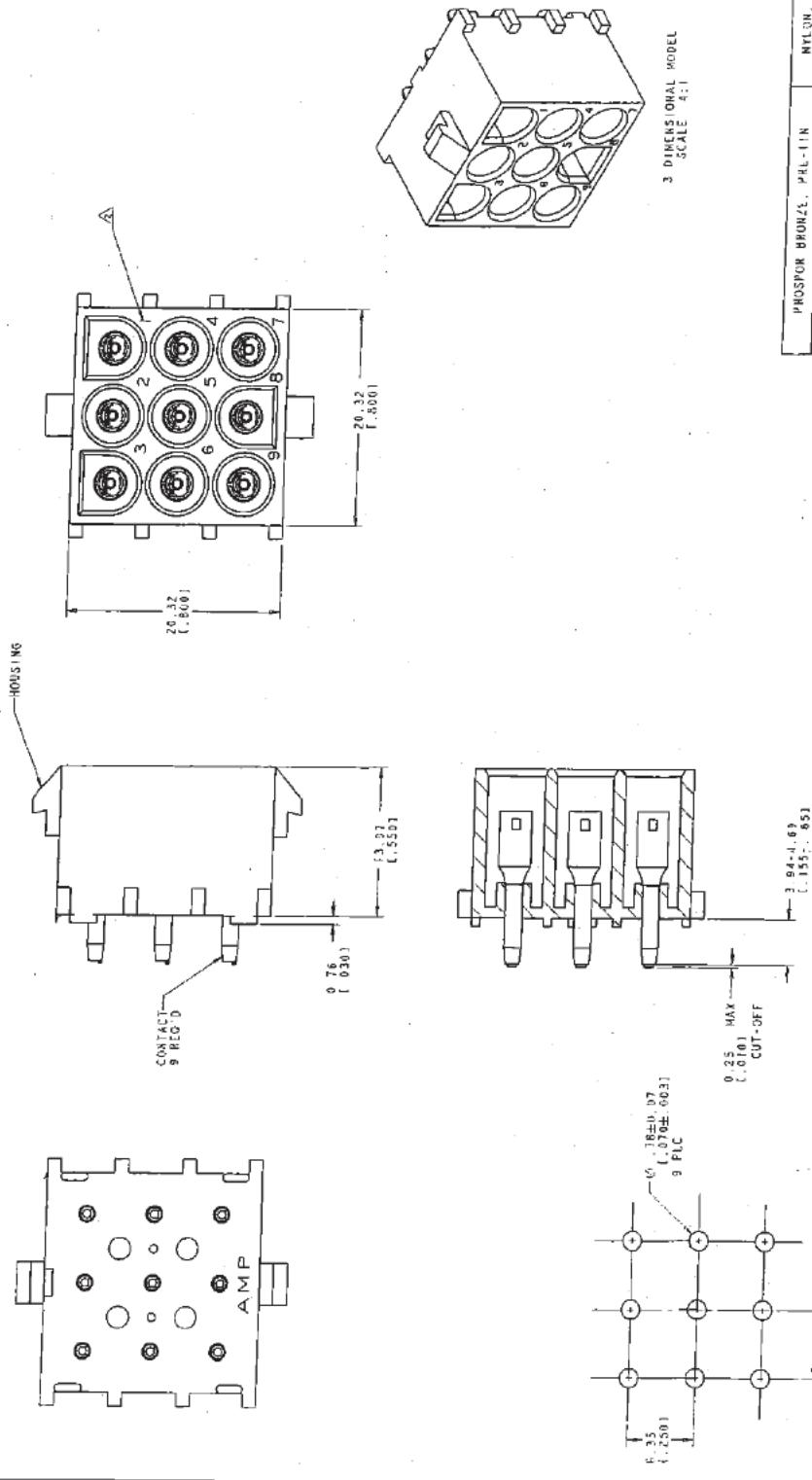


RECOMMENDED MOUNTING HOLE PATTERN FOR .57 (.023) THICK P.C. BOARD

3 DIMENSIONAL MODEL SCALE 1:1

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2. Δ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
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3 DIMENSIONAL MODEL
SCALE 4:1

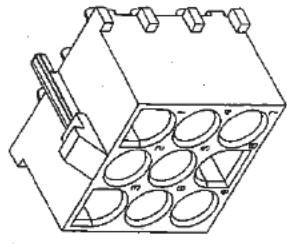
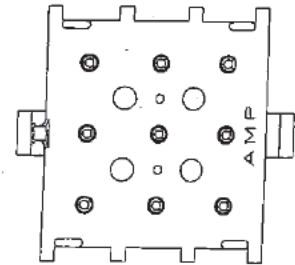
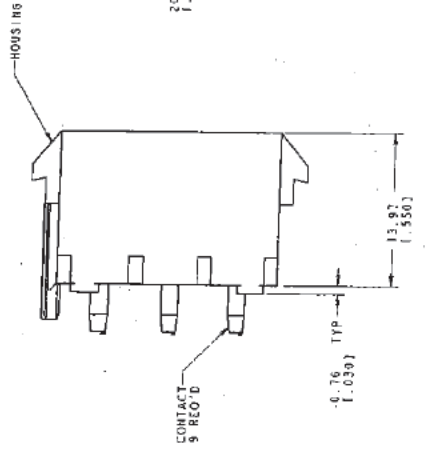
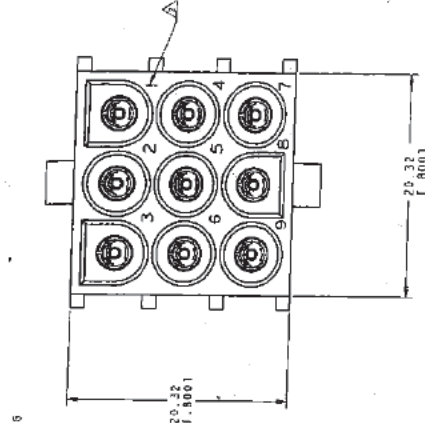
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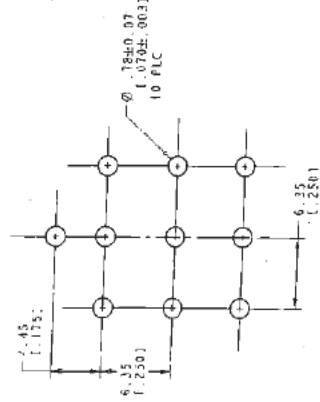
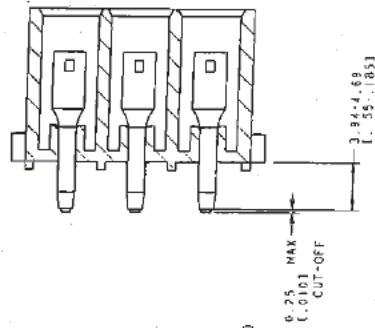
RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 (1.062) THICK P.C. BOARD

REVISED TO	DATE	BY
C	10/11/68	SM

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



3 DIMENSIONAL MODEL
SCALE 4:1



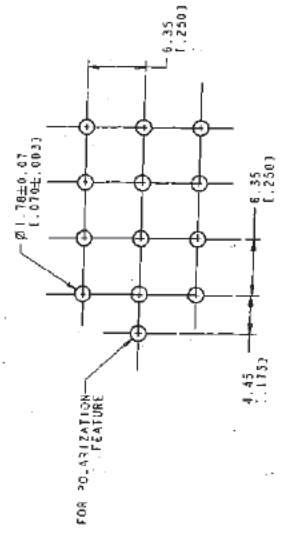
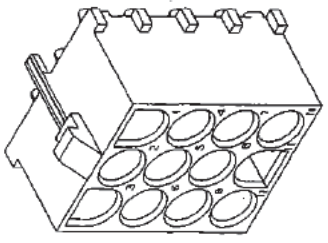
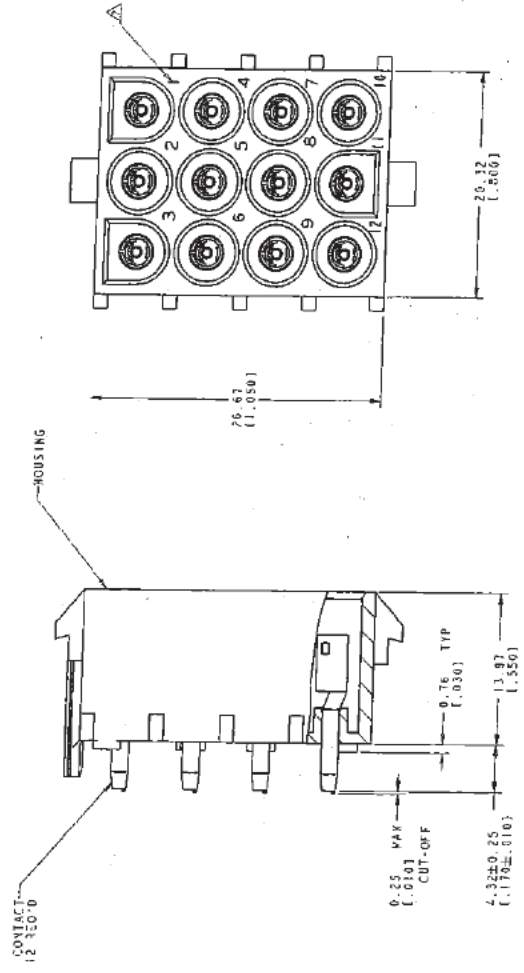
RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 (1.062) THICK P.C. BOARD



PIN CONTACT MATERIAL AND FINISH	PHOSPOR BRONZE, PGC TIN	NILON, UL94V-2	1566214-1
HOUSING MATERIAL	NYLON, UL94V-2		
PART NUMBER			
MANUFACTURER	TELETYPE ASSEMBLY SOCIETY, POLARIZER, 3 UNIVERSAL WAY, J.P. BOX 14		
DATE	10/11/68		
DESIGNER			
CHECKED BY			
DATE			
SCALE			
CUSTOMER ORDER NO.			

REV	DATE	BY	CHK	APP
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1. PARTS COMPLY WITH AMP SOLDERABILITY SPEC 109-11-2.
 2. CIRCUIT IDENTIFICATION CHARACTERS ARE AGENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.



3 DIMENSIONAL MODEL
 SCALE 4:1

PH BRZ	PRE-TIN	NYLON 94V-2	NATURAL	1586213-1
MATERIAL	FINISH	MATERIAL	COLOR	PART NO
HOUSING				
Type (Particular)				
Mfg. Part No. 1586213-1				
Mfg. Date 1982/07/23				
Mfg. Loc. 1586213-1				
Mfg. Lot No. 1586213-1				
Mfg. Qty. 1586213-1				
Mfg. Date 1982/07/23				
Mfg. Loc. 1586213-1				
Mfg. Lot No. 1586213-1				
Mfg. Qty. 1586213-1				
Mfg. Date 1982/07/23				
Mfg. Loc. 1586213-1				
Mfg. Lot No. 1586213-1				
Mfg. Qty. 1586213-1				
Mfg. Date 1982/07/23				
Mfg. Loc. 1586213-1				
Mfg. Lot No. 1586213-1				
Mfg. Qty. 1586213-1				

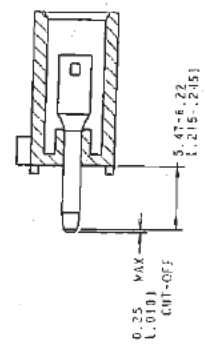
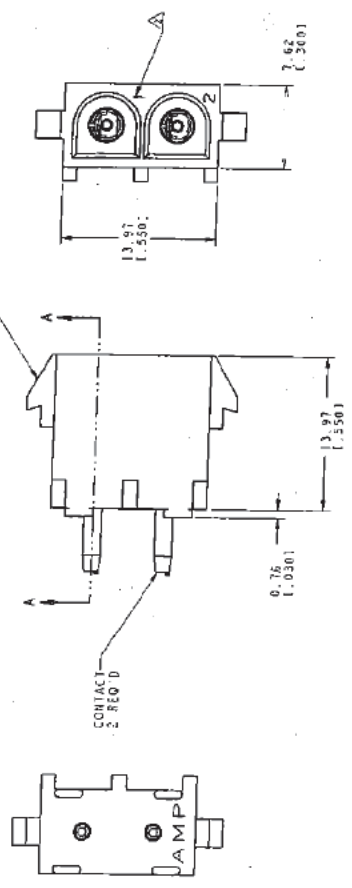
RECOMMENDED LAYOUT FOR
 1.57C, 0.621 THICK P.C. BOARD



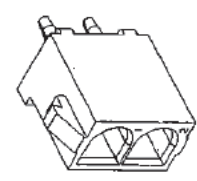
REV	DATE	BY	CHK	APP
CM 00				
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REV	DATE	BY	CHKD
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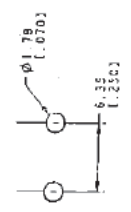
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION A-A



3 DIMENSIONAL VIEW
SCALE 4:1



RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.18 (1.25) - HICK P.C. BOARD

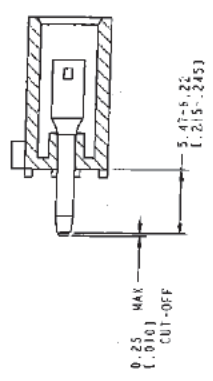
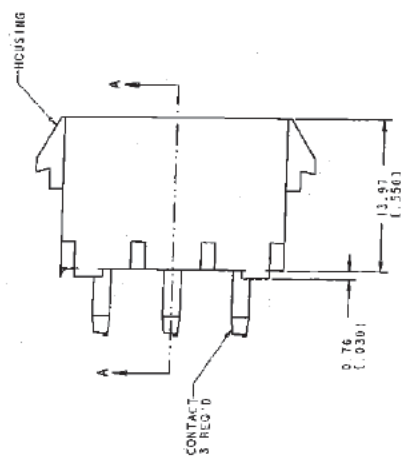
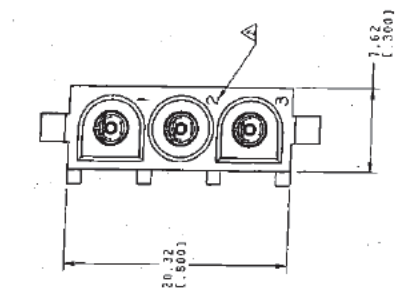
PLIESTON BRONZE DIE TIN	NYLON UL54Y 2 NATURAL	1586217
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
MANUFACTURER	MANUFACTURER	MANUFACTURER
DATE	DATE	DATE
REV	REV	REV
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10



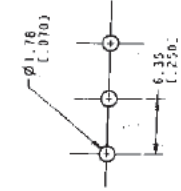
SOCKET HEADER ASSEMBLY
2 CIRCUIT BOARD MATE P.C.B.
REV 10/19/78
1586217

REV	DATE	BY	CHKD
1	10-10-60	WJ	WJ
2	11-10-60	WJ	WJ
3	11-10-60	WJ	WJ
4	11-10-60	WJ	WJ
5	11-10-60	WJ	WJ
6	11-10-60	WJ	WJ
7	11-10-60	WJ	WJ
8	11-10-60	WJ	WJ
9	11-10-60	WJ	WJ
10	11-10-60	WJ	WJ

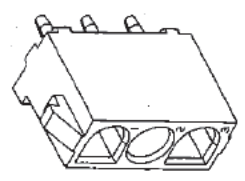
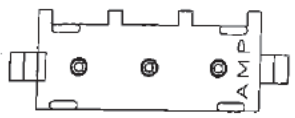
1. PARTS COMPLY TO ANP SOLDERABILITY SPECIFICATION 109-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION A-A



RECOMMENDED MOUNTING HOLE PATTERN FOR 3.18 (.125) THICK P.C. BOARD



3 DIMENSIONAL MODEL SCALE 1:1

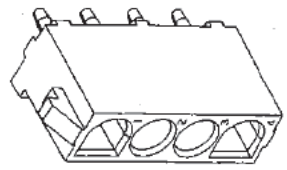
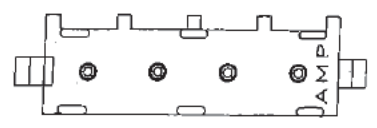
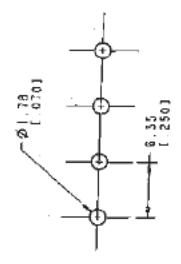
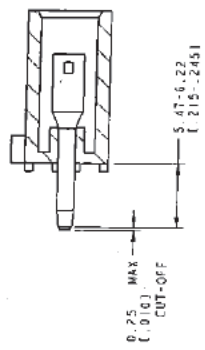
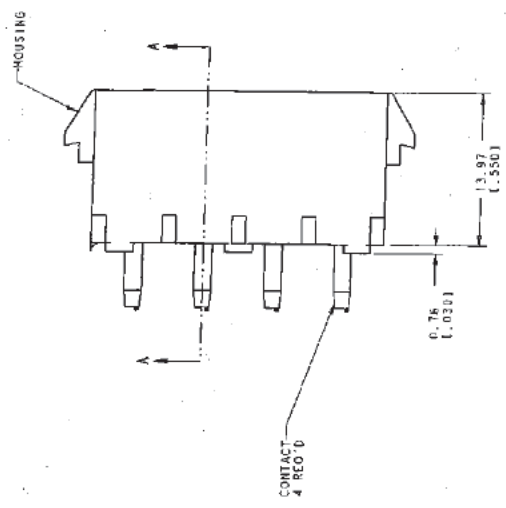
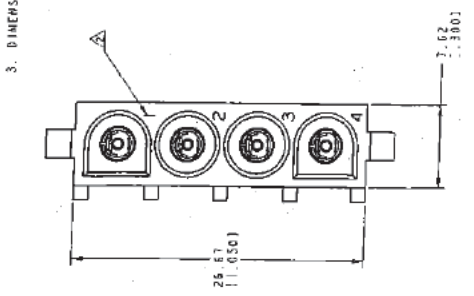
DESIGNATION	NYLON, UL94V-2, NATURAL	158621.8
CONTACT MATERIAL AND FINISH	CONTACT MATERIAL AND COLOR	PART RUBBER
MANUFACTURER	MANUFACTURER	MANUFACTURER
DATE	DATE	DATE
REV	REV	REV
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10



PROJECT	10179
DATE	11-10-60
BY	WJ
CHKD	WJ
APP'D	
REV	
1	
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REV	DATE	BY	CHKD
1	10-11-63	WJ	WJ
2	11-14-63	WJ	WJ
3	11-14-63	WJ	WJ
4	11-14-63	WJ	WJ
5	11-14-63	WJ	WJ
6	11-14-63	WJ	WJ
7	11-14-63	WJ	WJ
8	11-14-63	WJ	WJ
9	11-14-63	WJ	WJ
10	11-14-63	WJ	WJ

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-111-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



3 DIMENSIONAL MODEL
SCALE 4:1

PLIHOOR BRONZE, DIE TIN	NYLON, DL94V 2, NATURAL	1586219
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
MANUFACTURER	MANUFACTURER	MANUFACTURER
DESIGNER	DESIGNER	DESIGNER
DATE	DATE	DATE
REV	REV	REV
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
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RECOMMENDED MOUNTING HOLE PATTERN
FOR 3/16 (0.125) THICK P.C. BOARD

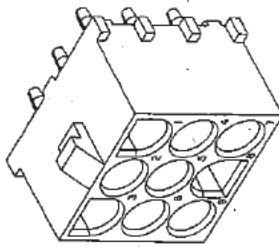
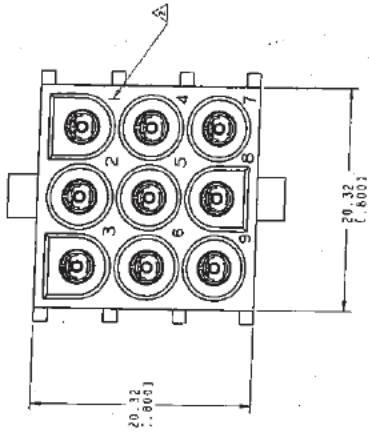
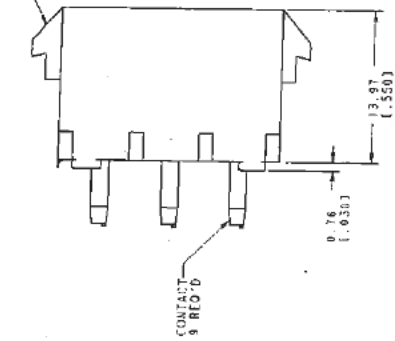
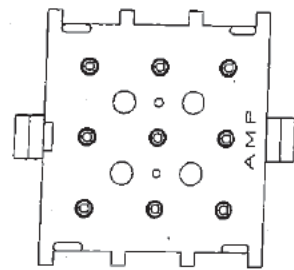
AMP
109-111-3

REV	DATE	BY	CHK	APP
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01				
02				
03				

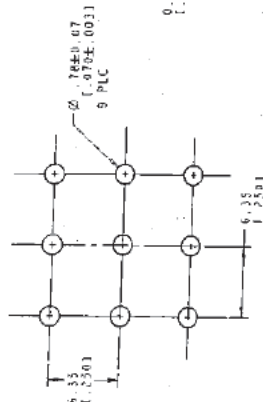
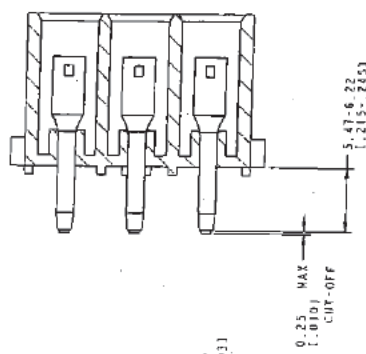
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 108-111-3.

2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.

3. DIMENSIONS IN BRACKETS ARE IN INCHES.



3 DIMENSIONAL MODEL
SCALE 4:1



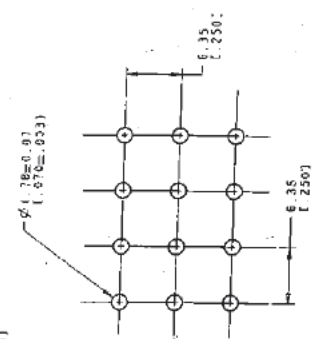
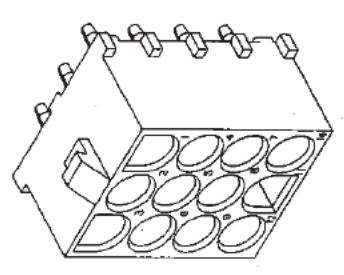
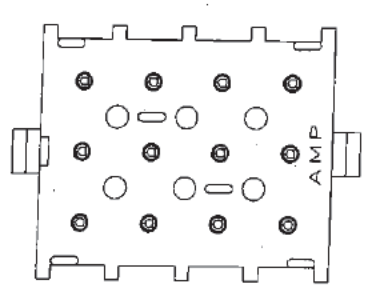
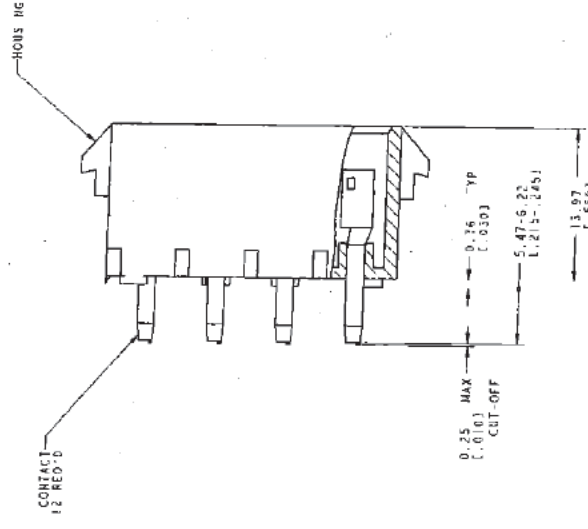
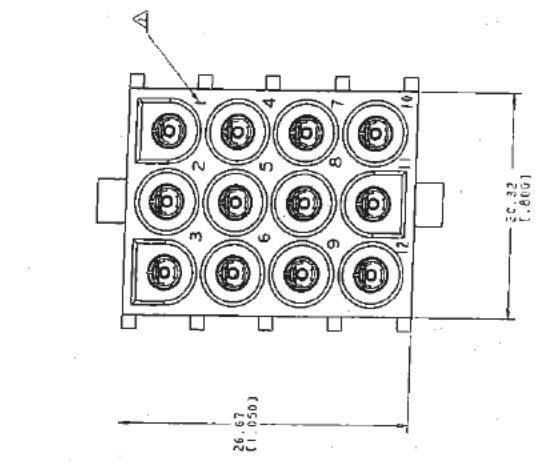
RECOMMENDED MOUNTING HOLE PATTERN FOR 3.18 (0.125) THICK P.C. BOARD

HOUSING BRONZE, DEC FIN	NYLON, UL94V-2	1586224 1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL	PART NUMBER
AMERICAN METRIC	1987	DATE
REWORKER	INSPECTOR	TESTER
DATE	TIME	LOC
REWORK ASSEMBLY, SOCKET		
3 CIRCULAR P.C. BOARD CONTACT		
METRIC DIMENSIONS IN INCHES		
PART NUMBER 1586224		
REV. 11119		
REV. 11119		



CM	00	77	78	79	80	81	82	83	84	85	86	87	88	89	90

1. PARTS COMPLY WITH AMP SOLDERABILITY SPEC. 109-11-2.
 △ CIRCUIT IDENTIFICATION CHARACTERS ARE AD-AGENT TO THE INDICATED CAVITIES IN LOCATION AND ORIENT ON MAT DIFFER FROM PRINT.



RECOMMENDED LAYOUT FOR
 3.18 (.125) THICK P.C. BOARD

3 DIMENSIONAL MODEL
 SCALE 4:1

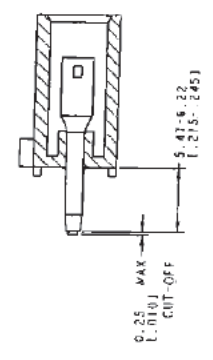
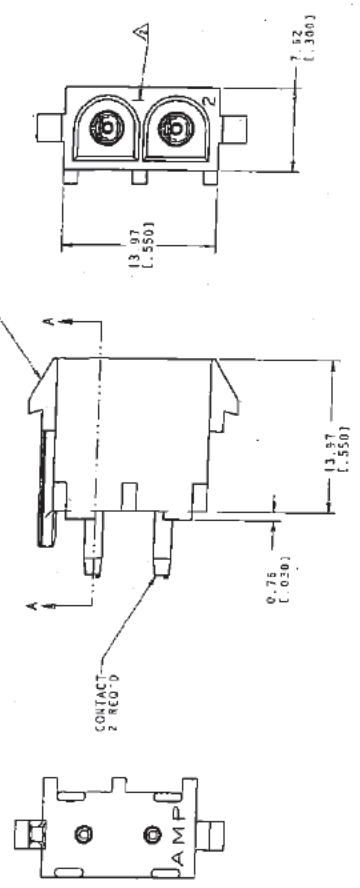
PH BRZ	PRE TIN	NYLON, 94V-2	NATURAL	1586223-1	PART NO
MATERIAL	FINISH	MATERIAL	COLOR		
HOUSING					
MATERIAL					
COLOR					
PART NO					
1586223-1					
MATERIAL					
COLOR					
PART NO					
1586223-1					
MATERIAL					
COLOR					
PART NO					
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COLOR					
PART NO					
1586223-1					

METRIC

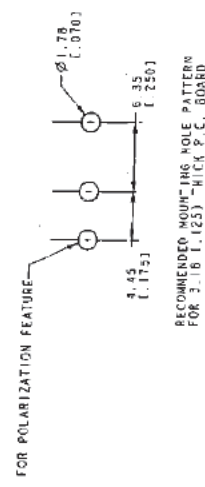
FIG 216
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

REV	DATE	BY	CHKD
CM	08		
C. REVISED TITLE			
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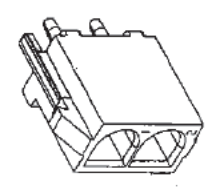
- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION A-A



FOR POLARIZATION FEATURE



3-DIMENSIONAL VIEW
SCALE 4:1

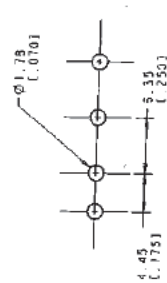
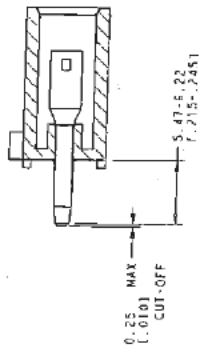
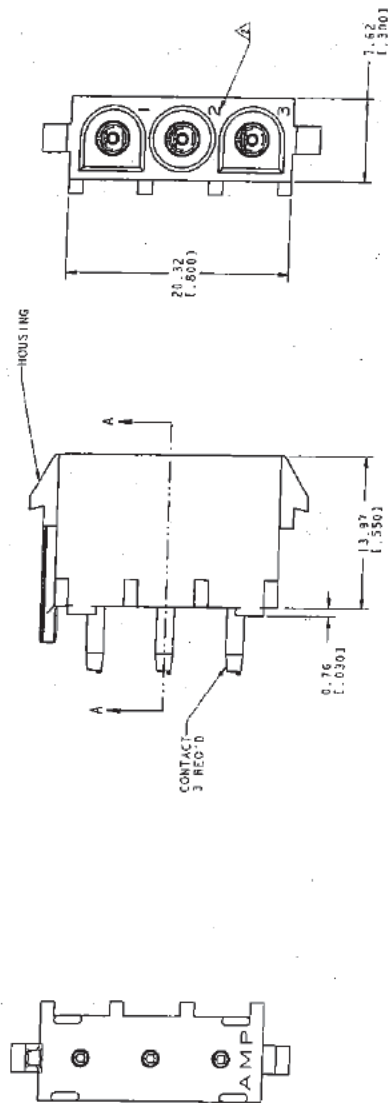
PHOSFOR BRONZE - 90% TIN	NYLON, UL94V-2, NATURAL	1586227 1
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
MIL-SPEC: MIL-C-20110	MIL-SPEC: MIL-PRC-13800	
MANUFACTURER: METRIC ELECTRONICS	MANUFACTURER: METRIC ELECTRONICS	
DESIGN: 1586227	DESIGN: 1586227	
DATE: 08/14/00	DATE: 08/14/00	
REV: 1	REV: 1	
REV: 2	REV: 2	
REV: 3	REV: 3	
REV: 4	REV: 4	
REV: 5	REV: 5	
REV: 6	REV: 6	
REV: 7	REV: 7	
REV: 8	REV: 8	
REV: 9	REV: 9	
REV: 10	REV: 10	
REV: 11	REV: 11	
REV: 12	REV: 12	
REV: 13	REV: 13	
REV: 14	REV: 14	
REV: 15	REV: 15	
REV: 16	REV: 16	
REV: 17	REV: 17	
REV: 18	REV: 18	
REV: 19	REV: 19	
REV: 20	REV: 20	
REV: 21	REV: 21	
REV: 22	REV: 22	
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REV: 60	REV: 60	
REV: 61	REV: 61	
REV: 62	REV: 62	
REV: 63	REV: 63	
REV: 64	REV: 64	
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REV: 74	REV: 74	
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REV: 78	REV: 78	
REV: 79	REV: 79	
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REV: 82	REV: 82	
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REV: 91	REV: 91	
REV: 92	REV: 92	
REV: 93	REV: 93	
REV: 94	REV: 94	
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REV: 100	REV: 100	



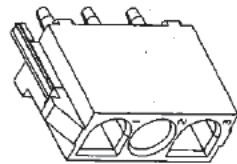
SOCIETY LEADER ASSEMBLY POLARIZING HOLES
3 CIRCULAR HOLES
MIL-SPEC: MIL-C-20110

CM	00								

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



RECOMMENDED MOUNTING HOLE PATTERN FOR 3 18 (.125) THICK P.C. BOARD



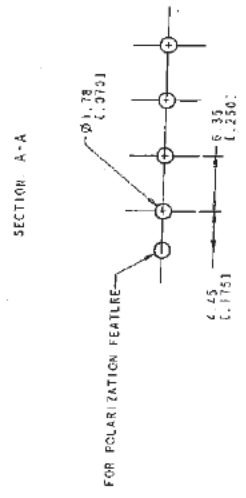
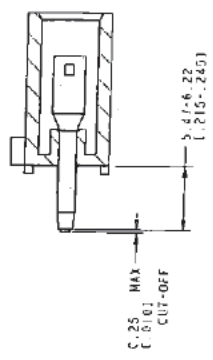
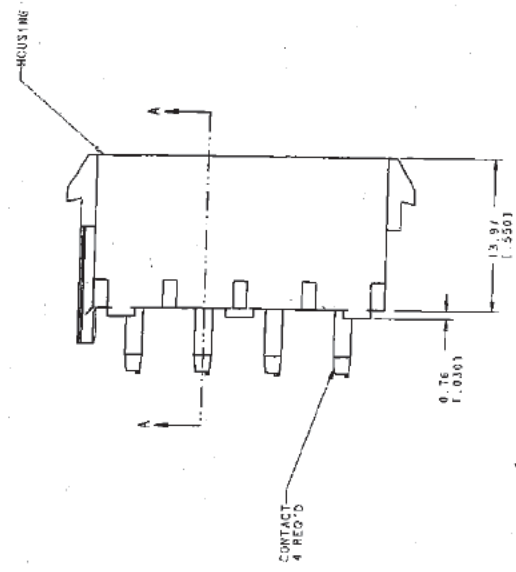
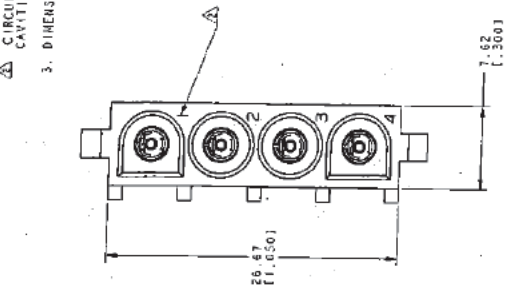
HARDSHIP BRONZE, 70% TIN		NYLON, UL94V-2, NATURAL		156632B-1	
CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR		PART NUMBER	
1. MATERIAL	2. FINISH	1. MATERIAL	2. COLOR	1. PART NUMBER	2. REV
1. HARDHIP BRONZE	2. 70% TIN	1. NYLON	2. NATURAL	1. 156632B-1	2. 1
DESIGNED BY: [Signature]		CHECKED BY: [Signature]		DATE: 10/15/68	
DRAWN BY: [Signature]		APPROVED BY: [Signature]		WORK CENTER: [Blank]	
MATERIAL SPECIFICATION: [Blank]		PROCESSING SPECIFICATION: [Blank]		TESTING SPECIFICATION: [Blank]	
MATERIAL NUMBER: [Blank]		PROCESSING NUMBER: [Blank]		TESTING NUMBER: [Blank]	
MATERIAL SPECIFICATION: [Blank]		PROCESSING SPECIFICATION: [Blank]		TESTING SPECIFICATION: [Blank]	
MATERIAL NUMBER: [Blank]		PROCESSING NUMBER: [Blank]		TESTING NUMBER: [Blank]	
MATERIAL SPECIFICATION: [Blank]		PROCESSING SPECIFICATION: [Blank]		TESTING SPECIFICATION: [Blank]	
MATERIAL NUMBER: [Blank]		PROCESSING NUMBER: [Blank]		TESTING NUMBER: [Blank]	
MATERIAL SPECIFICATION: [Blank]		PROCESSING SPECIFICATION: [Blank]		TESTING SPECIFICATION: [Blank]	
MATERIAL NUMBER: [Blank]		PROCESSING NUMBER: [Blank]		TESTING NUMBER: [Blank]	



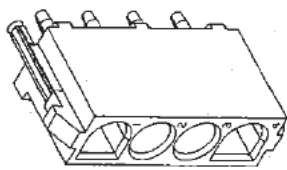
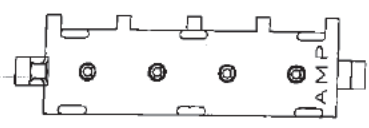
FIG 218
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	CHKD	APP'D
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- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ROUGHEST TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



RECOMMENDED MOUNTING HOLE PATTERN FOR 3/8 (1.25) THICK P.C. BOARD

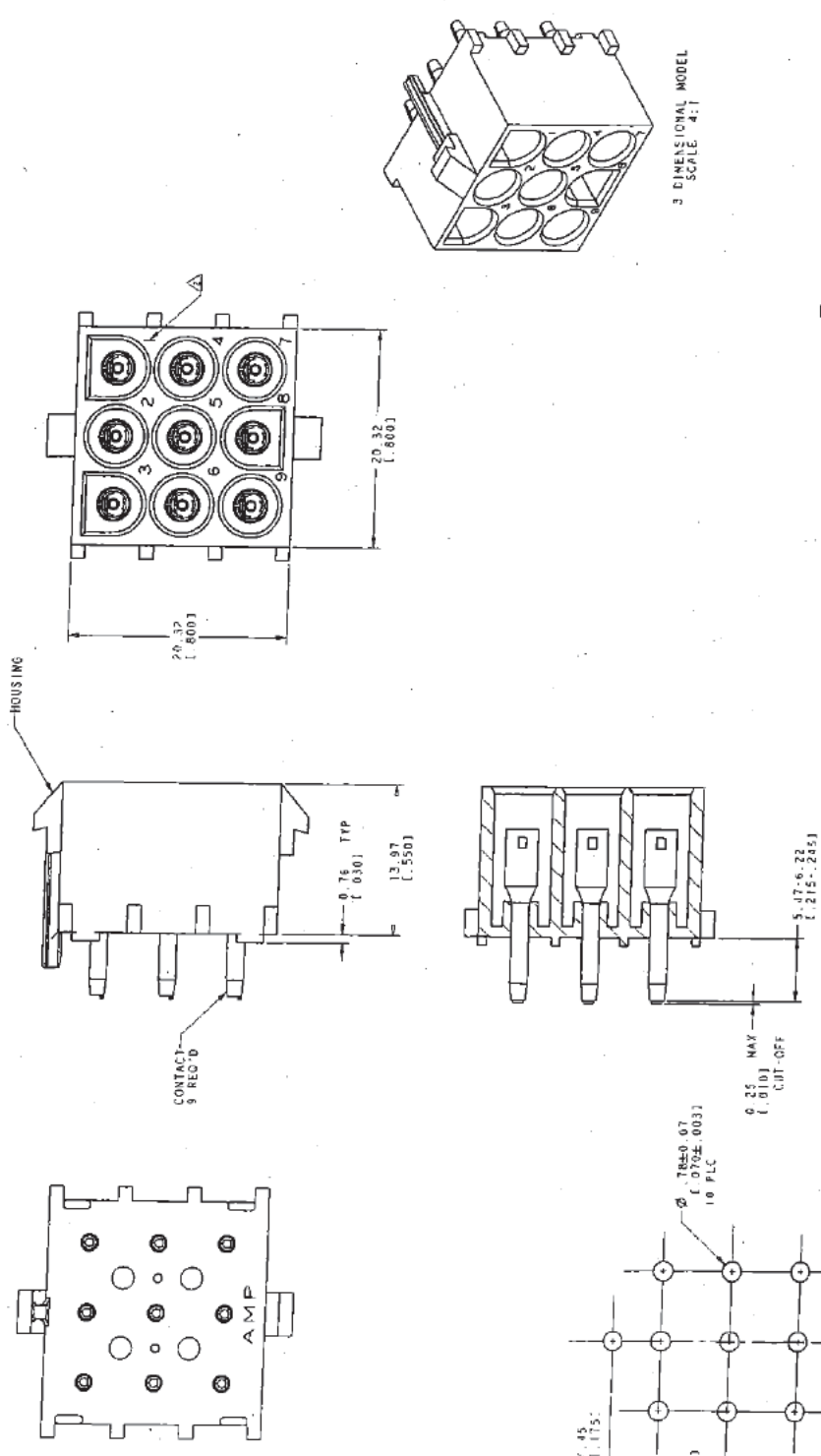


3 DIMENSIONAL MODEL
SCALE: 1:1

PLATING: BRONZE, 10% TIN	HOUSING MATERIAL AND FINISH: NYLON, UL94V-2, NATURAL	15-36223-3
CONTACT MATERIAL AND FINISH: 99.99% GOLD	HOUSING MATERIAL AND COLOR: 99.99% GOLD	PART NUMBER
MANUFACTURER: METRIC	MANUFACTURER: METRIC	MANUFACTURER: METRIC
DATE: 10/11/11	DATE: 10/11/11	DATE: 10/11/11
REV: 1	REV: 1	REV: 1
BY: J. J. HARRIS	BY: J. J. HARRIS	BY: J. J. HARRIS
CHECKED: J. J. HARRIS	CHECKED: J. J. HARRIS	CHECKED: J. J. HARRIS
APPROVED: J. J. HARRIS	APPROVED: J. J. HARRIS	APPROVED: J. J. HARRIS
DESCRIPTION: SOCKET LEADER ASSEMBLY, UNMOUNTED, 4 CONTACT, UNIVERSAL WATER-LOCK	DESCRIPTION: SOCKET LEADER ASSEMBLY, UNMOUNTED, 4 CONTACT, UNIVERSAL WATER-LOCK	DESCRIPTION: SOCKET LEADER ASSEMBLY, UNMOUNTED, 4 CONTACT, UNIVERSAL WATER-LOCK
QUANTITY: 1000	QUANTITY: 1000	QUANTITY: 1000
UNIT PRICE: \$0.15	UNIT PRICE: \$0.15	UNIT PRICE: \$0.15
TOTAL PRICE: \$15.00	TOTAL PRICE: \$15.00	TOTAL PRICE: \$15.00
CUSTOMER PART: 15-36223-3	CUSTOMER PART: 15-36223-3	CUSTOMER PART: 15-36223-3

REV	DATE	BY	CHKD
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1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



3 DIMENSIONAL MODEL
SCALE 4:1

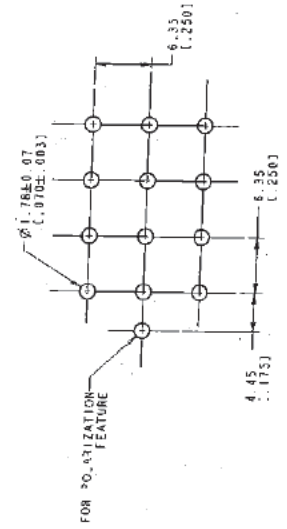
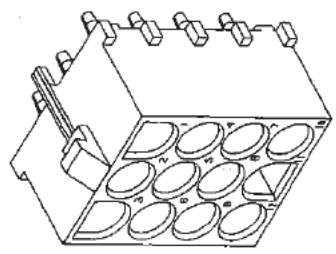
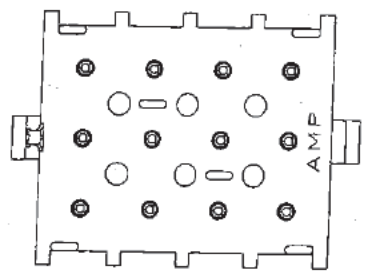
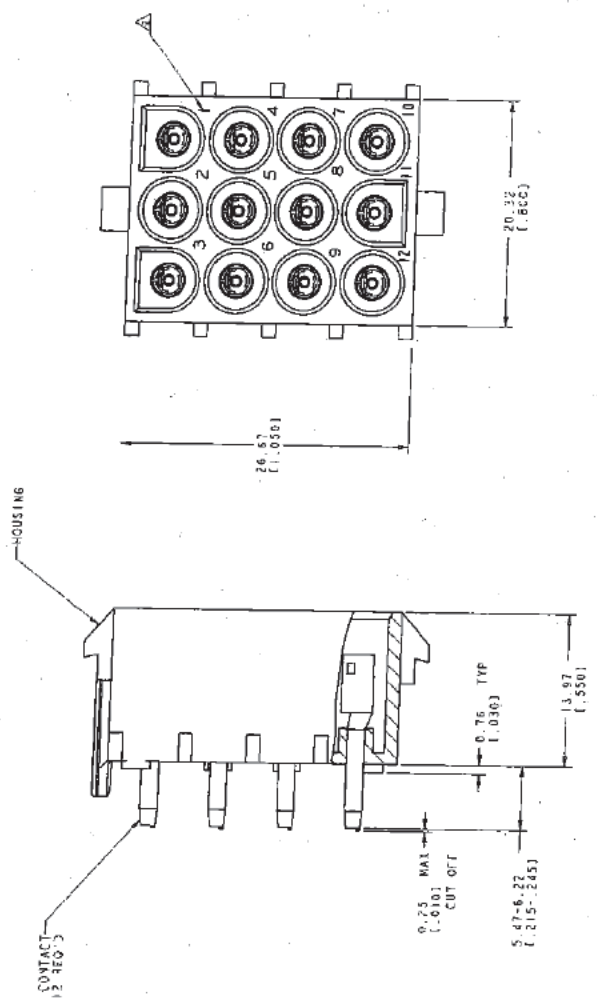


PHOSPHOR BRONZE, PRE TIN	NYLON, UL94V 2	1586234 1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL	PART NUMBER
WELKELL	WELKELL	
UNIVERSAL MACHINING	UNIVERSAL MACHINING	
UNIVERSAL MACHINING	UNIVERSAL MACHINING	
UNIVERSAL MACHINING	UNIVERSAL MACHINING	
UNIVERSAL MACHINING	UNIVERSAL MACHINING	
UNIVERSAL MACHINING	UNIVERSAL MACHINING	
UNIVERSAL MACHINING	UNIVERSAL MACHINING	
UNIVERSAL MACHINING	UNIVERSAL MACHINING	
UNIVERSAL MACHINING	UNIVERSAL MACHINING	

RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.18 (1.25) THICK P.C. BOARD

REV	BY	DATE	DESCRIPTION
1
2
3

1. PARTS COMPL* WITH AMP SOLDERABILITY SPEC. 109-11-2.
 *CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITY LOCATION AND ORIENTED ON MAT DIFFER FROM PAINT.



RECOMMENDED LAYOUT FOR
 3.18 (±.125) THICK P.C. BOARD

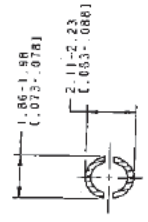
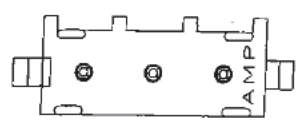
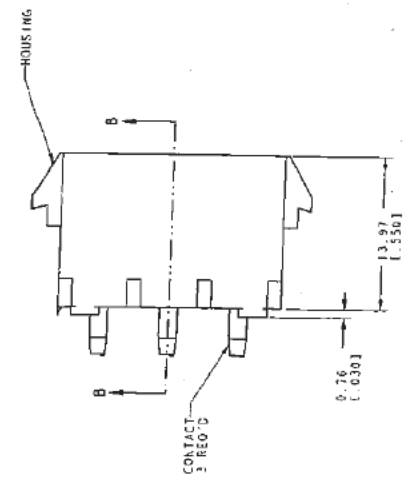
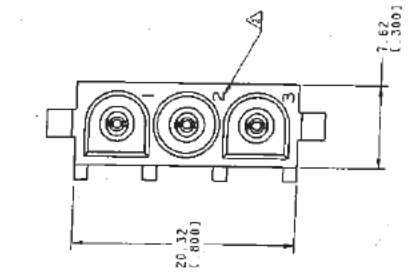
PH BRZ	PRE-TIN	NYLON 94V-2	NATURAL	1566235-7
MATERIAL	FINISH	MATERIAL	COLOR	PART NO
SPECIFICATIONS				
HEATER ASSEMBLY, POWER POLARIZED, W/O GRAIN HOLES, 12 CIRCUIT, 100% METALLIC MATERIALS				
METRIC DIMENSIONS				
A 10119 E-1566235				



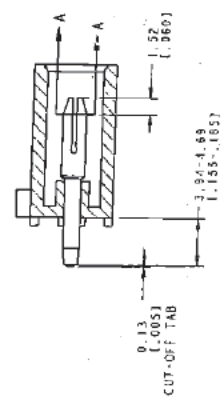
3 DIMENSIONAL MODEL
 SCALE 4:1

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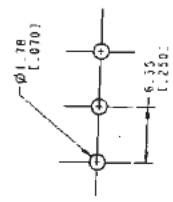
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11A-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



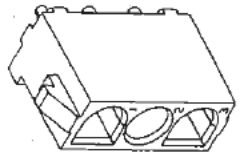
SECTION A-A
SCALE 10:1



SECTION B-B



RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 (.062) THICK P.C. BOARD



3 DIMENS DIAL MODEL
SCALE 3:1

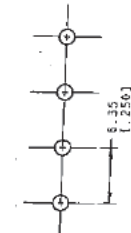
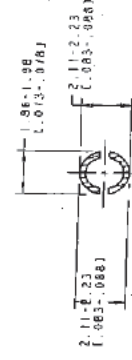
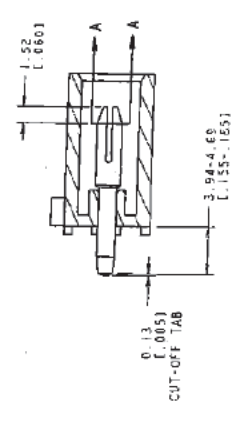
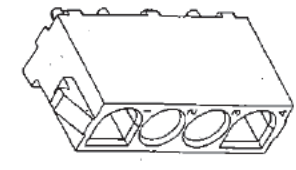
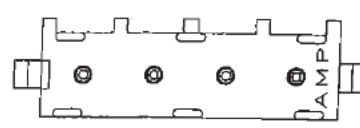
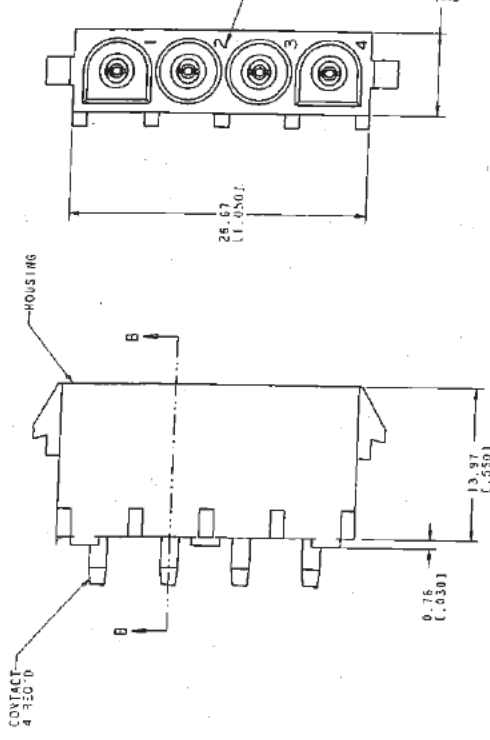
DESIGNATION	QUADRON BRONZE, PDC FIN	HOUSING MATERIAL AND COLOR	NYLON, UL94V-0, WHITE	1586163-1
SYMBOL	QBR	FINISH	NYLON, UL94V-0, WHITE	1586163-1
DESCRIPTION	3 CONTACT	FINISH	NYLON, UL94V-0, WHITE	1586163-1
QUANTITY	1	FINISH	NYLON, UL94V-0, WHITE	1586163-1
ASSEMBLY	3 (CIRCUIT AND BOARD POLY)	FINISH	NYLON, UL94V-0, WHITE	1586163-1
UNIVERSAL DATE	11-10-64	FINISH	NYLON, UL94V-0, WHITE	1586163-1
DATE	11-10-64	FINISH	NYLON, UL94V-0, WHITE	1586163-1
DESIGNED BY		FINISH	NYLON, UL94V-0, WHITE	1586163-1
CHECKED BY		FINISH	NYLON, UL94V-0, WHITE	1586163-1
APPROVED BY		FINISH	NYLON, UL94V-0, WHITE	1586163-1
DATE		FINISH	NYLON, UL94V-0, WHITE	1586163-1
SCALE		FINISH	NYLON, UL94V-0, WHITE	1586163-1
OTHER VIEW		FINISH	NYLON, UL94V-0, WHITE	1586163-1



REV	DATE	BY	CHKD
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CM	90	2	1
REVISION	DATE	BY	APP

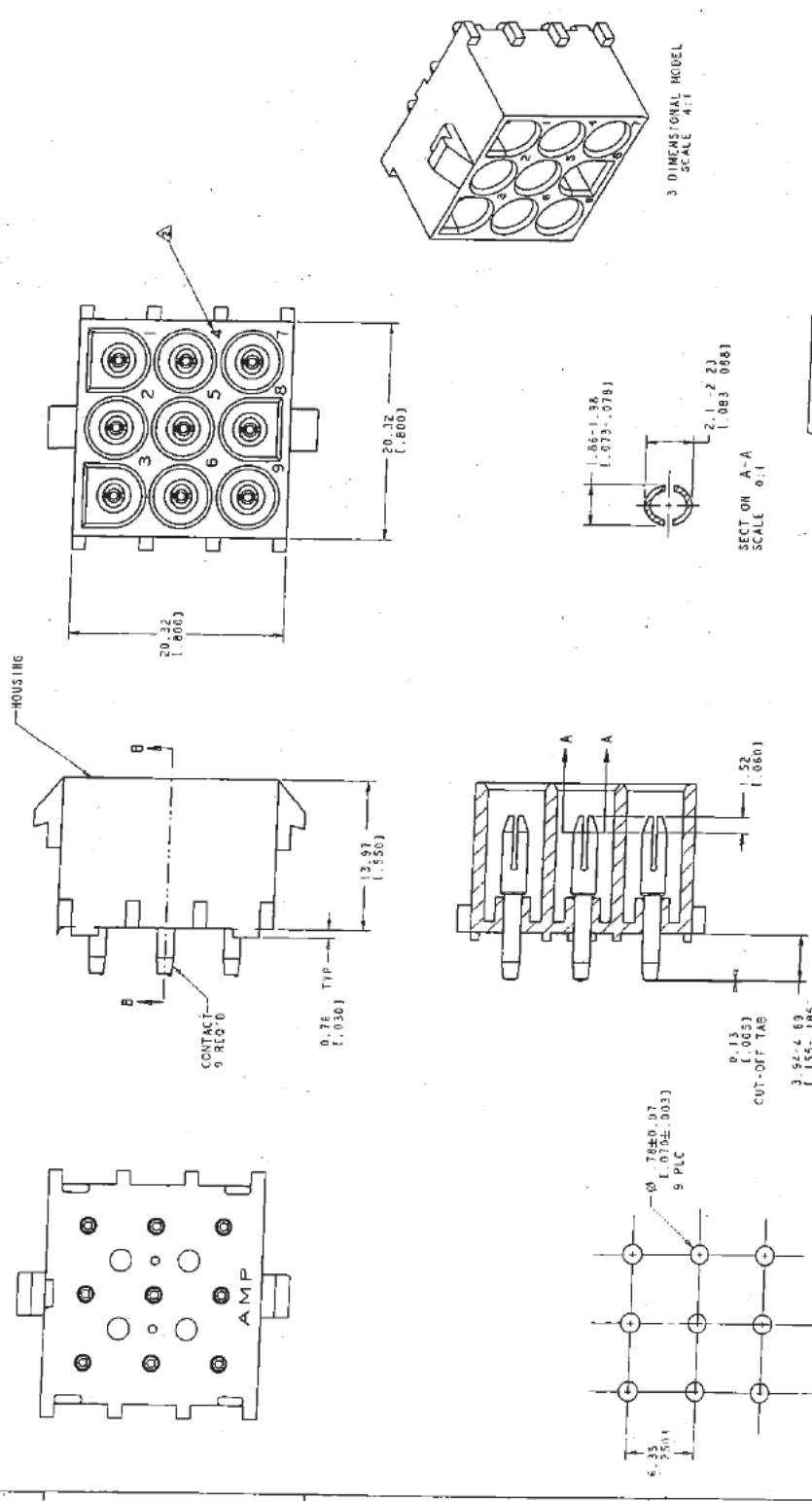
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



PIN CONTACT MATERIAL DIOSFOR BRONZE, DRC 7 IN	HOUSING MATERIAL AND COLOR NYLON, UL94V-0, WHITE	PART NUMBER 1586163
MANUFACTURER METRIC	DESIGNER METRIC	DATE 10/19/79
SYMBOL 1586163	TEST SYMBOL 1586163	REV. DATE 10/19/79
METRIC		
FILM HEAD ASSEMBLY 4 CONTACT PIN HEAD HOUSING (SEE PART 1586163)		
CONTACT METHOD		

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MATES TEL	
MATES TEL	
MATES TEL	
MATES TEL	

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- ▲ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



PROPRIETOR: BIRNBOURNE, DUC TON	NYLON, UL 94V-0 WHITE	1586168 I
FIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
MATERIAL: COPPER	HOUSING: NYLON	DATE: 05-07-66
DESIGNER: J. W. HANCOCK	ENGINEER: J. W. HANCOCK	TESTER: J. W. HANCOCK
WORK CENTER: 100-1000	INSPECTION: J. W. HANCOCK	DATE: 05-07-66
QUANTITY: 1000	ORDER NUMBER: 1586168 I	PROJECT: 100-1000
DATE: 05-07-66	BY: J. W. HANCOCK	FOR: J. W. HANCOCK



FIG 225
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

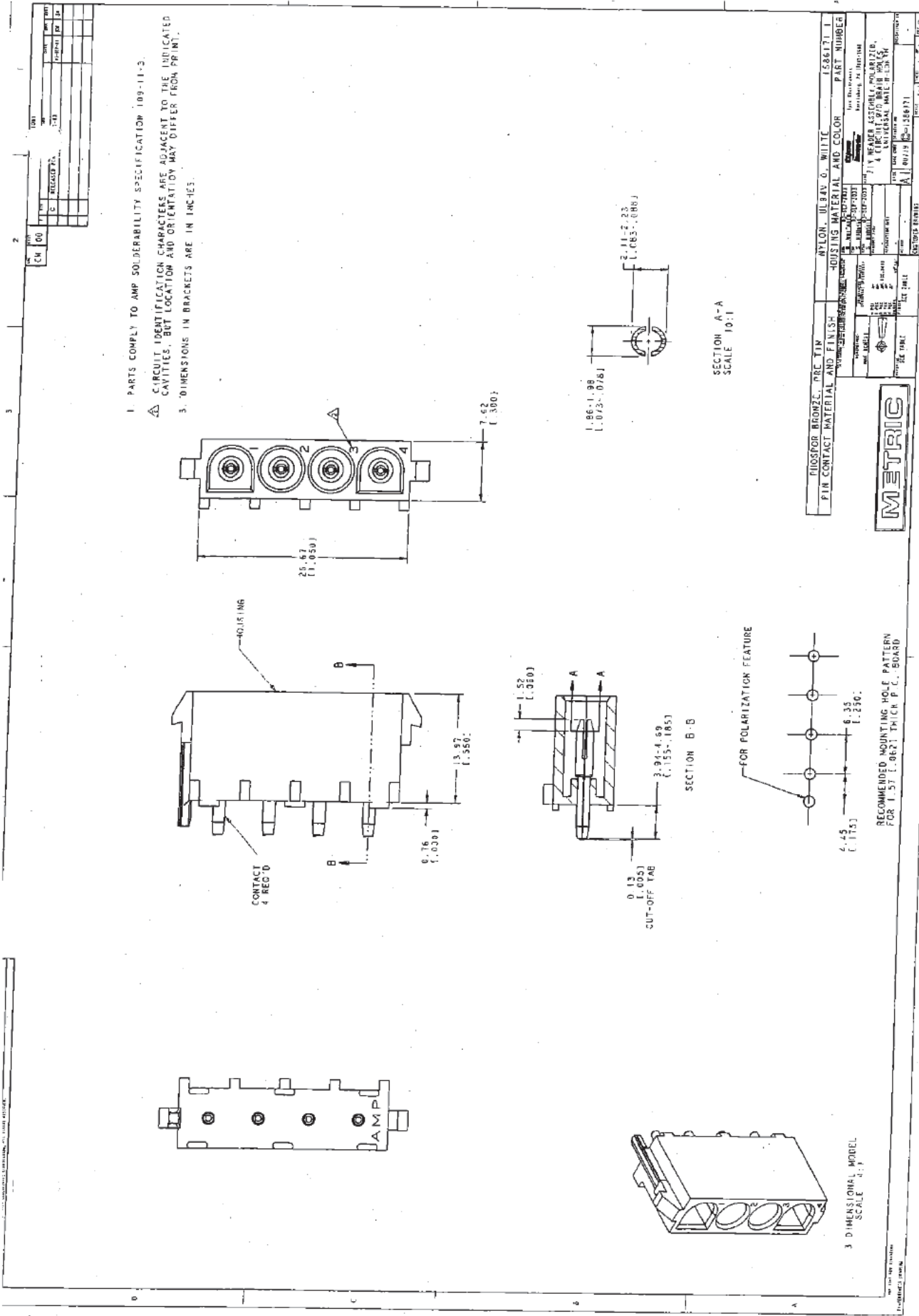
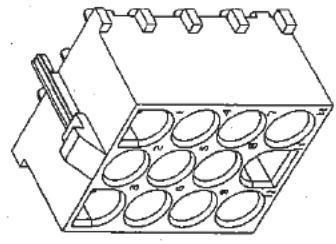
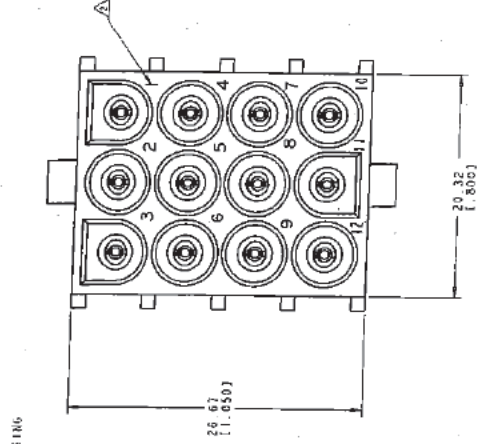


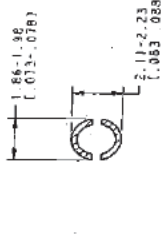
FIG 227
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

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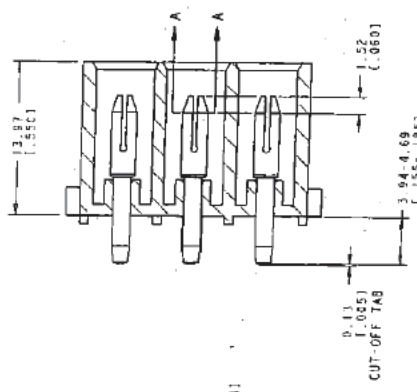
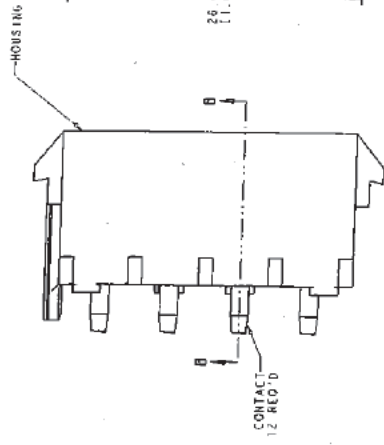
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 105-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES



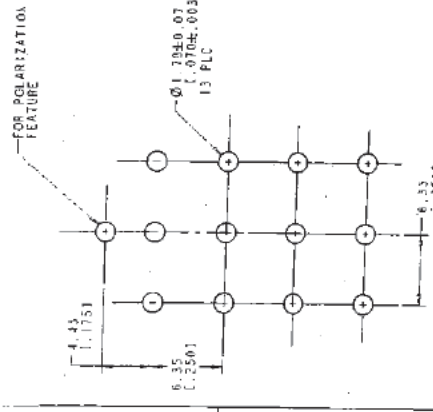
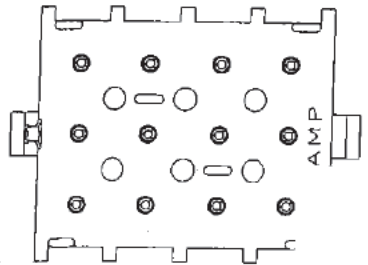
3 DIMENSIONAL MODEL
SCALE 3:1



SECTION A-A
SCALE 10:1



SECTION B-B



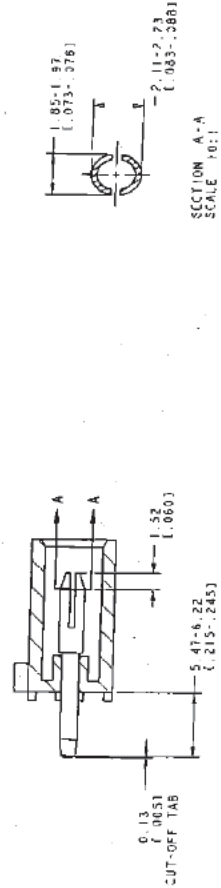
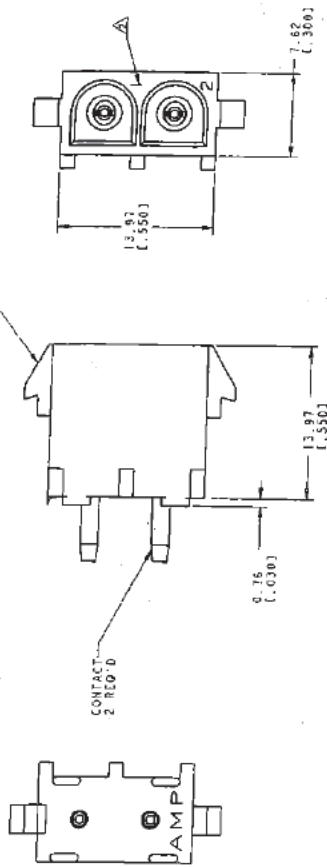
RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 T. 682; THICK P.C. BOARD

PHOSPHOR BRONZE - PRE TYP	NYLON - UL94V-0 WHITE	1585176	1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER	
1. 1585176	1. 1585176	1. 1585176	1
2. 1585176	2. 1585176	2. 1585176	2
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93. 1585176	93. 1585176	93. 1585176	93
94. 1585176	94. 1585176	94. 1585176	94
95. 1585176	95. 1585176	95. 1585176	95
96. 1585176	96. 1585176	96. 1585176	96
97. 1585176	97. 1585176	97. 1585176	97
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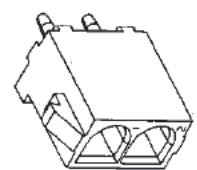


REV	DATE	BY	CHKD
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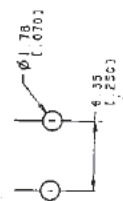
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION A-A
SCALE 10:1



3 DIMENSIONAL VIEW
SCALE 4:1



RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.5-18 (1.125) THICK P.C. BOARD

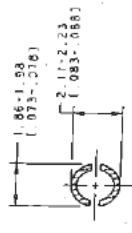
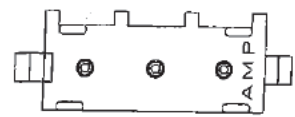
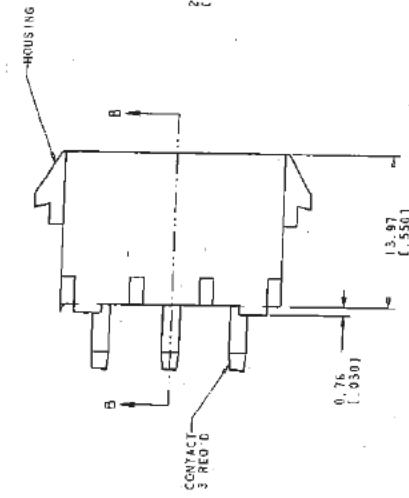
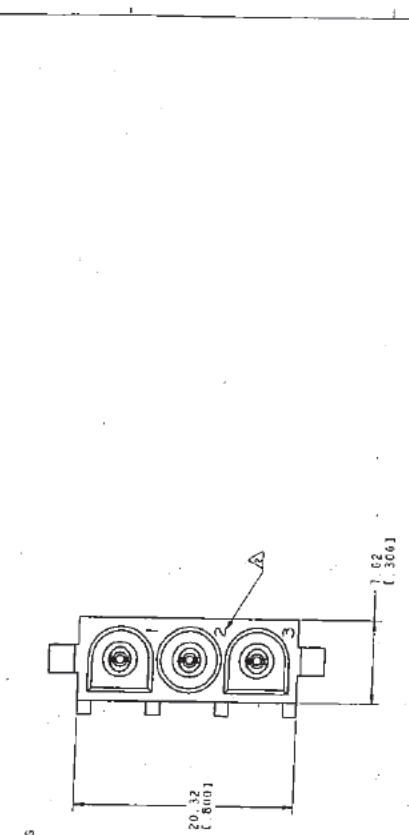
P105POR BRONZE, 90% TIN PIN CONTACT MATERIAL AND FINISH	NYLON UL94V-0, WHITE HOUSING MATERIAL AND COLOR	1586178 PART NUMBER
MIL-PRF-19500 MIL-STD-2000 MIL-STD-2009 MIL-STD-2013 MIL-STD-2019 MIL-STD-2020 MIL-STD-2021 MIL-STD-2022 MIL-STD-2023 MIL-STD-2024 MIL-STD-2025 MIL-STD-2026 MIL-STD-2027 MIL-STD-2028 MIL-STD-2029 MIL-STD-2030 MIL-STD-2031 MIL-STD-2032 MIL-STD-2033 MIL-STD-2034 MIL-STD-2035 MIL-STD-2036 MIL-STD-2037 MIL-STD-2038 MIL-STD-2039 MIL-STD-2040 MIL-STD-2041 MIL-STD-2042 MIL-STD-2043 MIL-STD-2044 MIL-STD-2045 MIL-STD-2046 MIL-STD-2047 MIL-STD-2048 MIL-STD-2049 MIL-STD-2050 MIL-STD-2051 MIL-STD-2052 MIL-STD-2053 MIL-STD-2054 MIL-STD-2055 MIL-STD-2056 MIL-STD-2057 MIL-STD-2058 MIL-STD-2059 MIL-STD-2060 MIL-STD-2061 MIL-STD-2062 MIL-STD-2063 MIL-STD-2064 MIL-STD-2065 MIL-STD-2066 MIL-STD-2067 MIL-STD-2068 MIL-STD-2069 MIL-STD-2070 MIL-STD-2071 MIL-STD-2072 MIL-STD-2073 MIL-STD-2074 MIL-STD-2075 MIL-STD-2076 MIL-STD-2077 MIL-STD-2078 MIL-STD-2079 MIL-STD-2080 MIL-STD-2081 MIL-STD-2082 MIL-STD-2083 MIL-STD-2084 MIL-STD-2085 MIL-STD-2086 MIL-STD-2087 MIL-STD-2088 MIL-STD-2089 MIL-STD-2090 MIL-STD-2091 MIL-STD-2092 MIL-STD-2093 MIL-STD-2094 MIL-STD-2095 MIL-STD-2096 MIL-STD-2097 MIL-STD-2098 MIL-STD-2099 MIL-STD-2100	1586178 PART NUMBER	AMP HEAD ASSEMBLY UNIVERSAL ELECTRONICS 1000 UNIVERSITY AVENUE BOSTON, MASSACHUSETTS 02116 TEL: (617) 552-1000 FAX: (617) 552-1001 WWW: WWW.AMP.COM



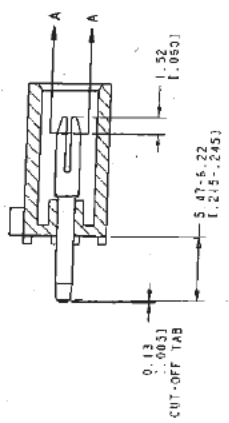
REV	DATE	BY	CHKD
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CM 100	REV	DATE	BY	CHKD BY
	C	REVISED P.L.V.	8-53	JF

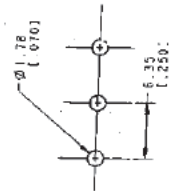
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



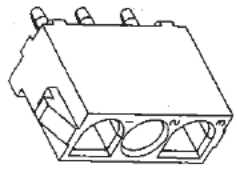
SECTION A-A
SCALE 10:1



SECTION B-B



RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.18 (.125) THICK P.C.B. BOARD



3-D DIMENSIONAL MODEL
SCALE 4:1

PIN CONTACT MATERIAL AND FINISH: PHOSPHOR BRONZE, 95% TIN

HOUSING MATERIAL AND COLOR: NYLON, UL34V 0, WHITE

RESULTS: PART NUMBER

METRIC

3 PIN HEADER ASSSEMBLY
UNIVERSAL MISC. P.L.V. 114

REVISED P.L.V. 8-53

DATE 8-53

BY JF

CHKD JF

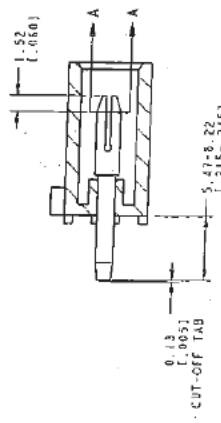
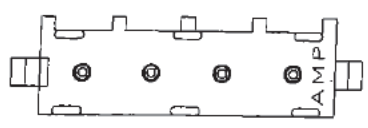
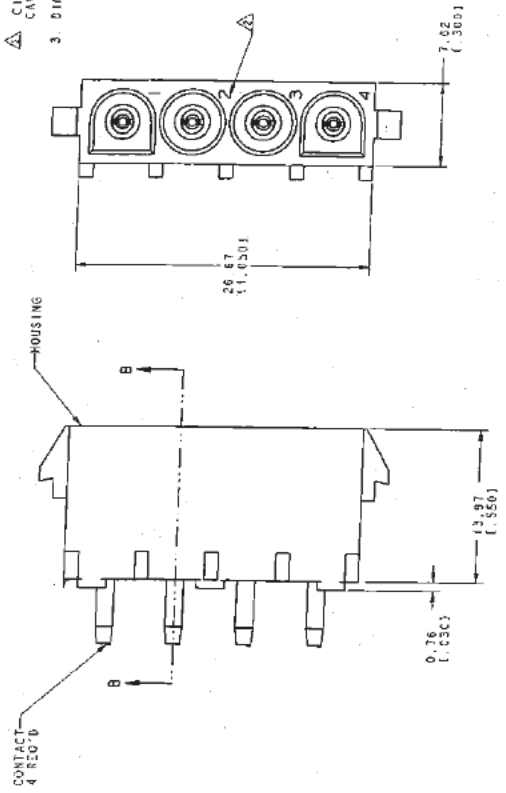
FIG. 230

REV. 5

100-11-1-3

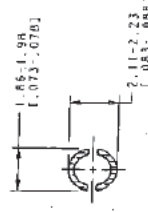
REV	DATE	BY	CHKD
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12			

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-1-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



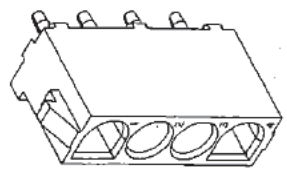
SECTION A-A

SCALE 10:1

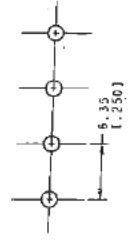


SECTION B-B

SCALE 10:1



3 DIMENSIONAL MODEL SCALE 4:1

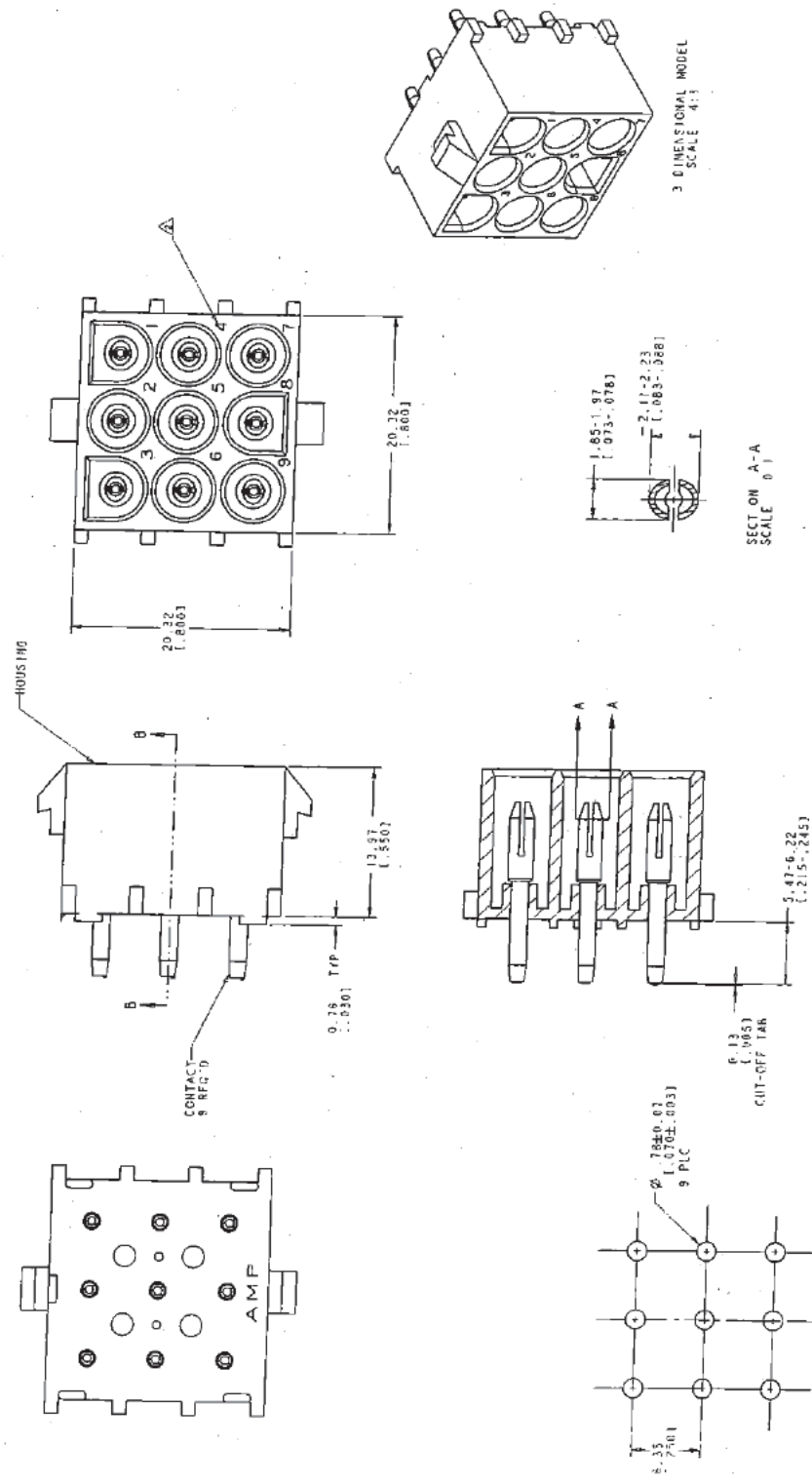


RECOMMENDED MOUNTING HOLE PATTERN FOR 3.18 (.125) THICK P.C. BOARD

MATERIAL	MILSION BRONZE, 90% TIN	HOUSING MATERIAL AND COLOR	NYLON, UL94V-0, WHITE	586180	PART NUMBER
FINISH	AS SUPPLIED	FINISH	AS SUPPLIED		
PLATING	AS SUPPLIED	PLATING	AS SUPPLIED		
TEMPERATURE	AS SUPPLIED	TEMPERATURE	AS SUPPLIED		
PROCESS	AS SUPPLIED	PROCESS	AS SUPPLIED		
DATE	11-11-70	DATE	11-11-70		
DESIGNED BY	W. J. HARRIS	DESIGNED BY	W. J. HARRIS		
CHECKED BY		CHECKED BY			
APPROVED BY		APPROVED BY			
DATE		DATE			
REV		REV			
1		1			
2		2			
3		3			
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10		10			
11		11			
12		12			



1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-111-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



1386165 T	1386165 T
NYLON UL94V-0 WHITE	NYLON UL94V-0 WHITE
HOUSING MATERIAL AND COLOR	HOUSING MATERIAL AND COLOR
PIN CONTACT MATERIAL AND FINISH	PIN CONTACT MATERIAL AND FINISH
9 CONTACTS	9 CONTACTS
9 CONTACT AND BRACKET HOLES	9 CONTACT AND BRACKET HOLES
UNIVERSAL MATE-IT-101-10	UNIVERSAL MATE-IT-101-10

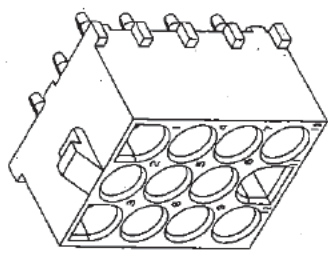
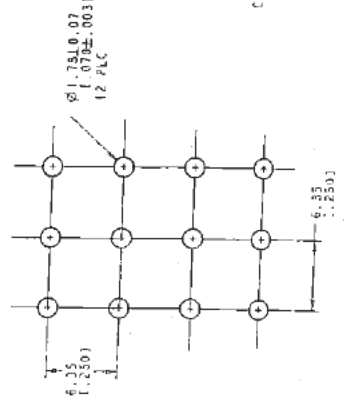
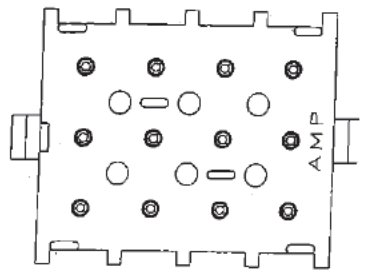
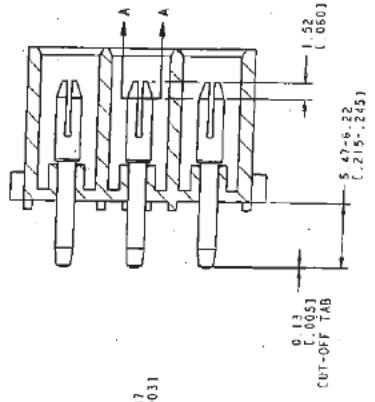
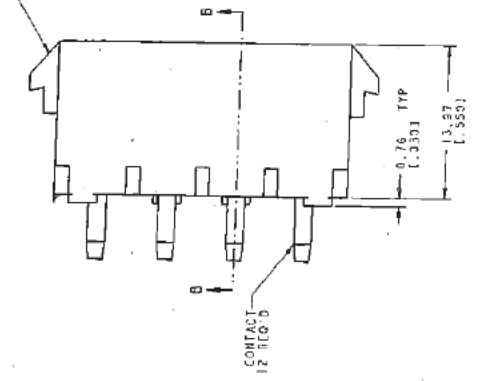
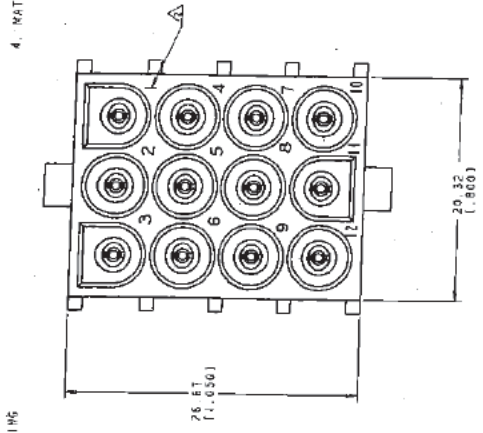


RECOMMENDED MOUNTING HOLE PATTERN FOR 3.18 (0.125) THICK P.C. BOARD

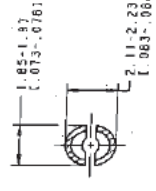
FIG 232
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

CM 100	REV	DATE	BY	CHK
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1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 108-11-3
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.
4. MATTS WITH HOUSING 350735.



3 DIMENSIONAL MODEL
SCALE 4:1

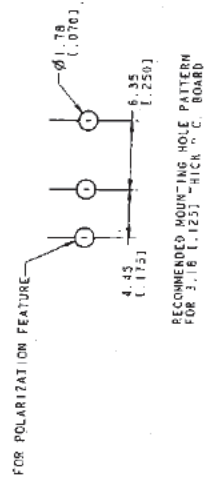
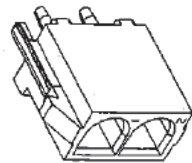
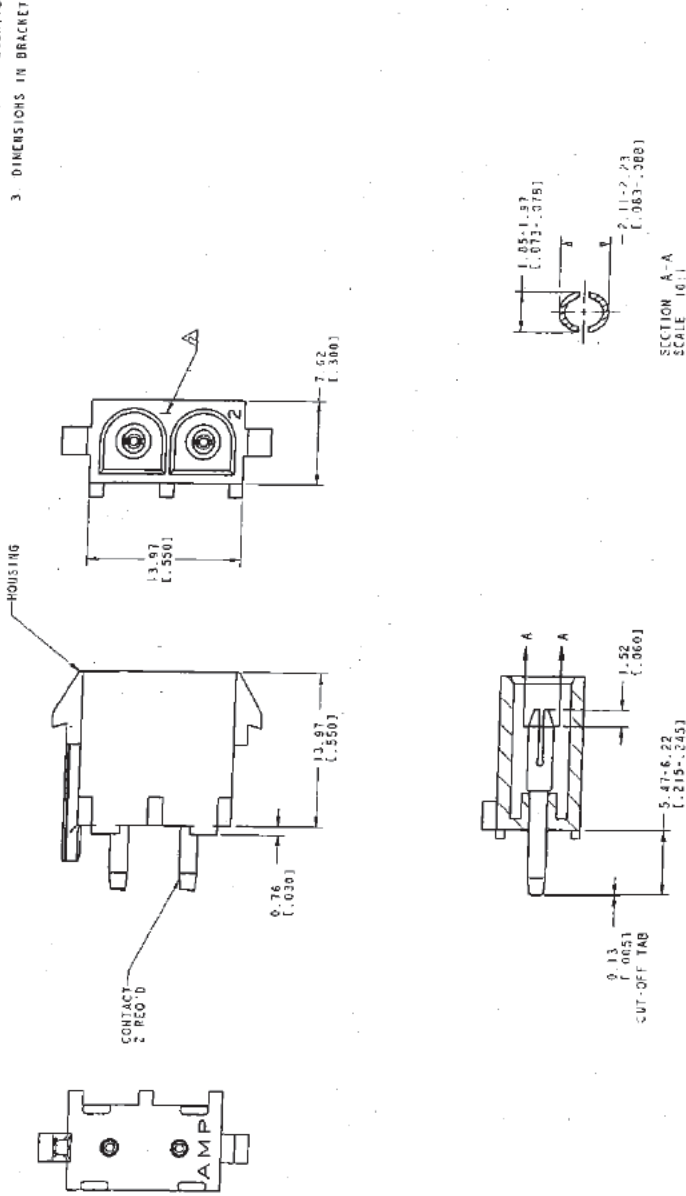


SECTION A-A
SCALE 10:1

PHOSFOR BRONZE, DRE TYP		NYLON, UL94V 0, NATURAL		586186 1
PIN CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR		PART NUMBER
METRIC		MILITARY		
DESIGNED BY		CHECKED BY		
DRAWN BY		APPROVED BY		
DATE		DATE		
SCALE		SCALE		
CUST. ORDER NUMBER		CUST. ORDER NUMBER		
12 PIN HEADER ASSEMBLY		12 PIN HEADER ASSEMBLY		
12 PIN HOUSING		12 PIN HOUSING		
12 PIN HOUSING		12 PIN HOUSING		
12 PIN HOUSING		12 PIN HOUSING		

QTY	1	REVISED	01
BY	JW	DATE	10-18-68
CHKD	JK	DATE	11-19-68

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



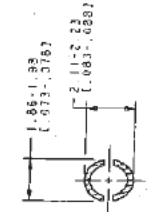
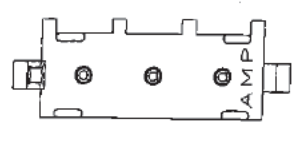
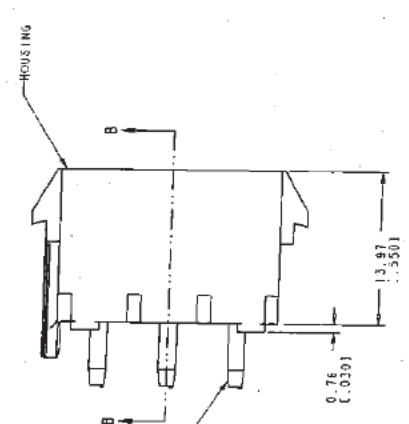
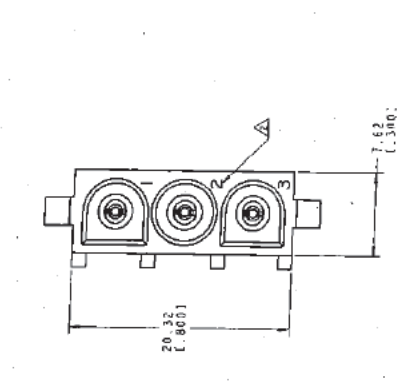
PROSTON BRONZE, PDC, TIN	HOUSING MATERIAL AND COLOR	NYLON, UL94V-0, WHITE	136618A 1
PIR CONTACT	PIR CONTACT	PIR CONTACT	PIR CONTACT



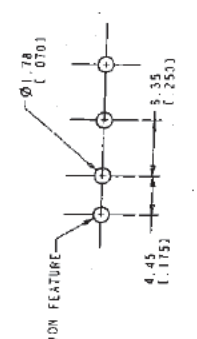
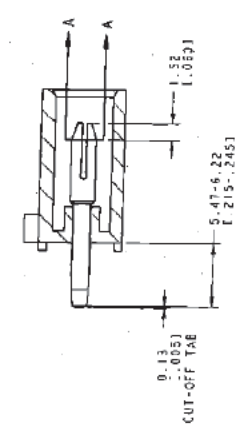
△ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES... BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.

3. DIMENSIONS IN BRACKETS ARE IN INCHES.

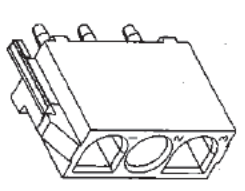
REV.	DATE	DESCRIPTION
1		ASSEMBLY
2		REVISED
3		REVISED
4		REVISED
5		REVISED



SECTION A-A
SCALE 10:1



RECOMMENDED MOUNTING HOLE PATTERN FOR 3 IS L.125 THICK P.C. BOARD



3 DIMENSIONAL MODEL
SCALE 4:1

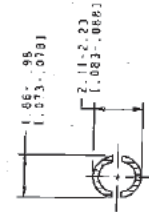
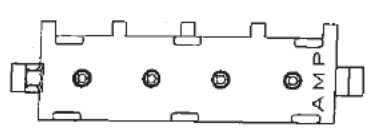
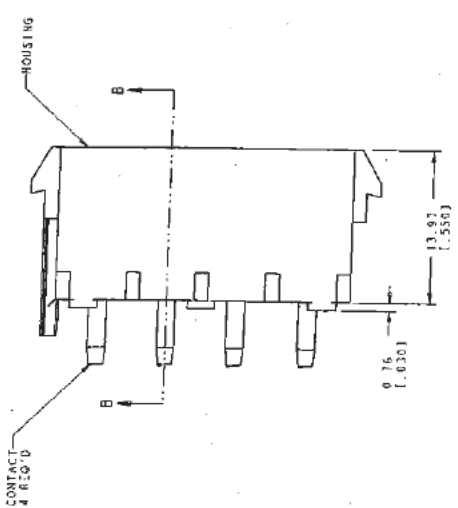
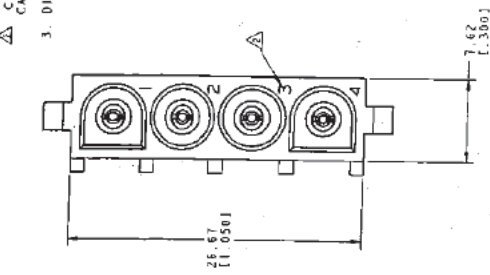
MILITARY PART NUMBER	1586189
DESCRIPTION	3 CONTACT MATERIAL AND FINISH
PLACEMENT	PLACEMENT
DATE	DATE
DESIGNED BY	DESIGNED BY
CHECKED BY	CHECKED BY
APPROVED BY	APPROVED BY
DATE	DATE
REV	REV
DATE	DATE
APPROVED BY	APPROVED BY
DATE	DATE
REV	REV
DATE	DATE
APPROVED BY	APPROVED BY
DATE	DATE
REV	REV
DATE	DATE
APPROVED BY	APPROVED BY
DATE	DATE



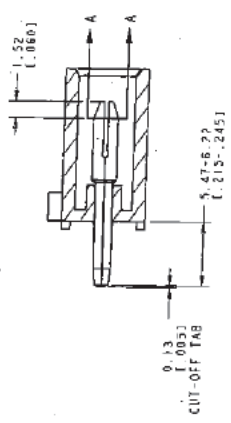
PROPERTY OF MILITARY AGENCY. THIS DRAWING IS UNCLASSIFIED AND IN THE PUBLIC DOMAIN.

REV	DATE	BY	APP'D
CV 00		C. HILGARDT	
REV 01			
REV 02			
REV 03			
REV 04			
REV 05			
REV 06			
REV 07			
REV 08			
REV 09			
REV 10			

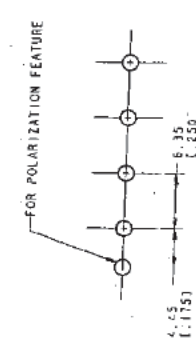
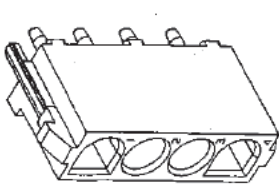
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION A-A
SCALE 10:1



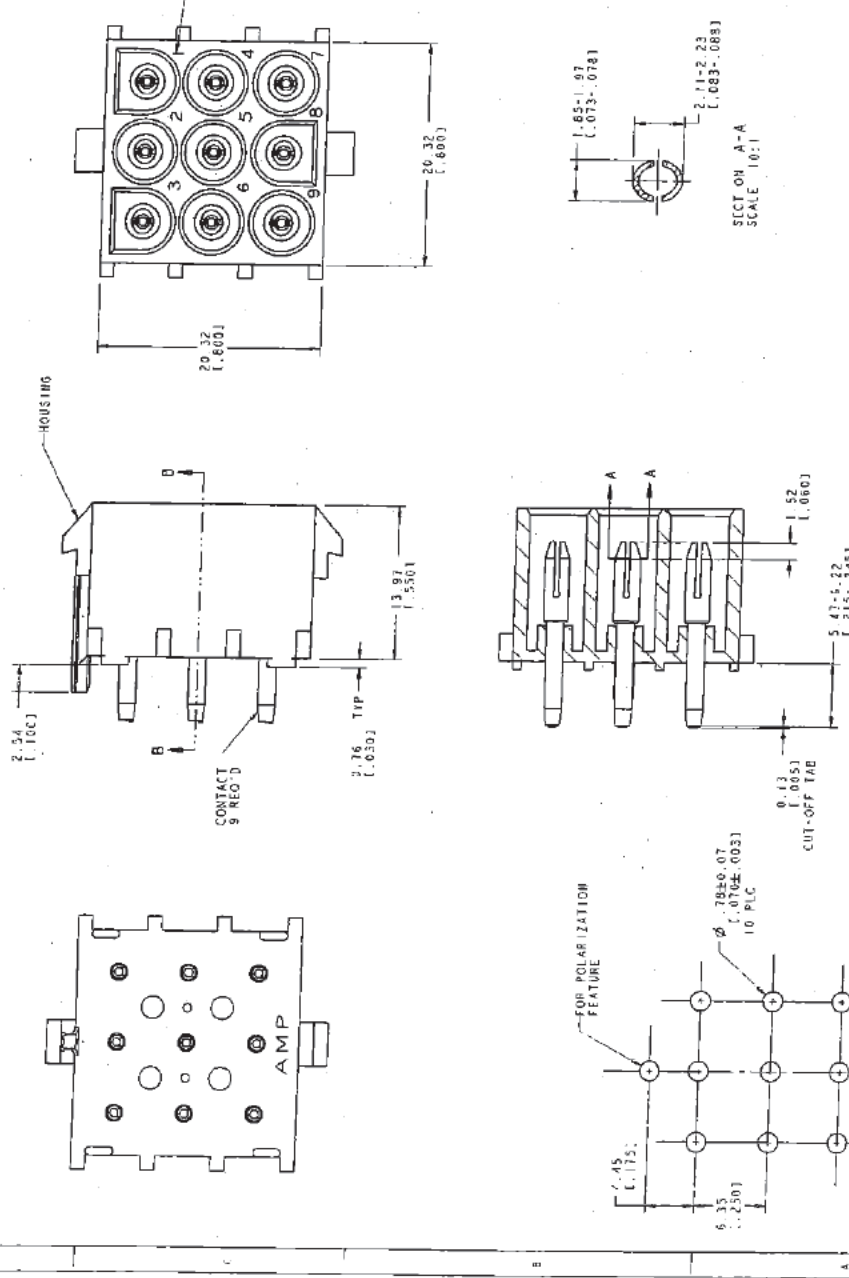
SECTION B-B



RECOMMENDED MOUNTING HOLE PATTERN
FOR 3-18 (.125) THICK P.C. BOARD

NIDSPOR BRONZE, PRE-TIN		MYLON, ULTRAV. G. WHITE		1586190-1	
PIN CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR		PART NUMBER	
WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT
WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT
WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT
WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT
WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT
WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT
WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT
WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT	WATER-RESISTANT

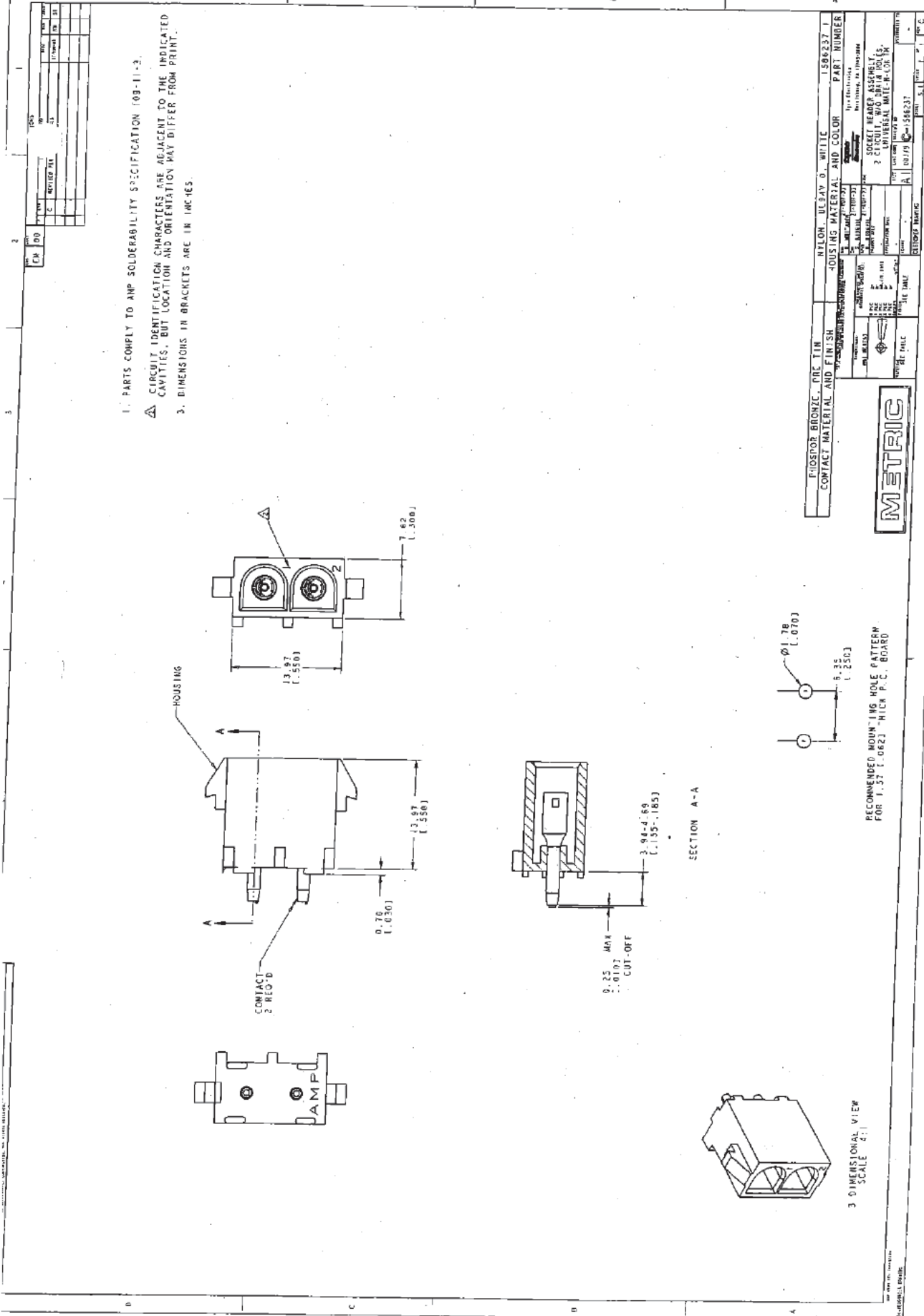




1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-3.
 ⚠ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
 3. DIMENSIONS IN BRACKETS ARE IN INCHES.

PINSPOON BRONZE, DRY TIN			MILON, UL34V, G. WHITE		15861951																						
PIN CONTACT MATERIAL AND FINISH			HOUSING MATERIAL AND COLOR		PART NUMBER																						
<table border="0"> <tr> <td>DESIGNATION</td> <td>REV.</td> <td>DATE</td> <td>BY</td> <td>CHKD.</td> <td>APPR.</td> <td>DESCRIPTION</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>HOUSING ASSEMBLY POLARIZATION</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3 CIRCLES, 40 DIA HOLES, UNIVERSAL MATE-H 107-1</td> </tr> </table>							DESIGNATION	REV.	DATE	BY	CHKD.	APPR.	DESCRIPTION							HOUSING ASSEMBLY POLARIZATION							3 CIRCLES, 40 DIA HOLES, UNIVERSAL MATE-H 107-1
DESIGNATION	REV.	DATE	BY	CHKD.	APPR.	DESCRIPTION																					
						HOUSING ASSEMBLY POLARIZATION																					
						3 CIRCLES, 40 DIA HOLES, UNIVERSAL MATE-H 107-1																					
<p style="text-align: center;">METRIC</p>																											

FIG 237
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

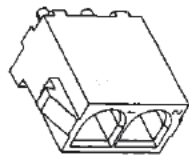


1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION (09-11-2).
2. CAREFUL IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.

PLIUSPOR BRONZE, ONE TIN	MILOR, ULSAY O. WHITE	1586237-1
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
MIL-B-18800	MIL-B-18800	
SOCKET READER ASSEMBLY	SOCKET READER ASSEMBLY	
FOR USE WITH THE	FOR USE WITH THE	
UNIVERSAL DATE P.C.B.	UNIVERSAL DATE P.C.B.	
DATE	DATE	
BY	BY	
CHECKED	CHECKED	
APPROVED	APPROVED	
DESIGNED	DESIGNED	
DRAWN	DRAWN	
DATE	DATE	
BY	BY	
CHECKED	CHECKED	
APPROVED	APPROVED	
DESIGNED	DESIGNED	
DRAWN	DRAWN	

METRIC

RECOMMENDED MOUNTING HOLE PATTERN FOR 1.37 (±.062) THICK P.C. BOARD

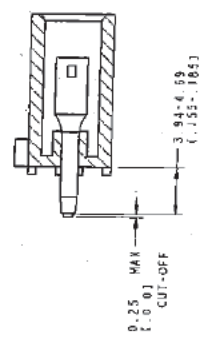
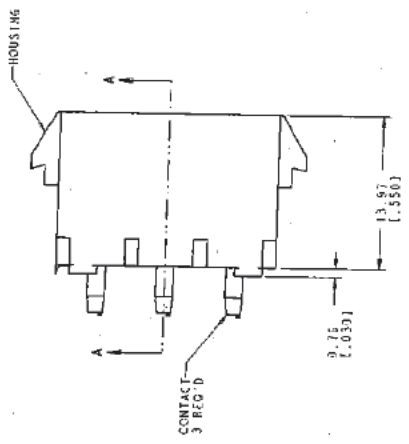
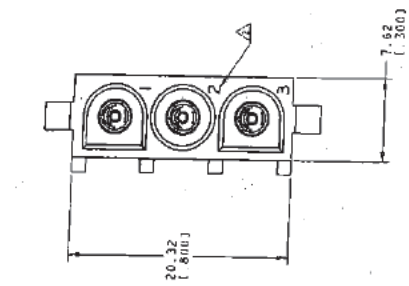


3 DIMENSIONAL VIEW SCALE 2:1

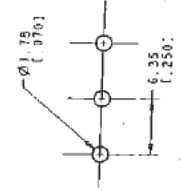
SECTION A-A

REV	DATE	BY	CHKD
1	10/11/73	WJL	WJL
2	10/11/73	WJL	WJL
3	10/11/73	WJL	WJL
4	10/11/73	WJL	WJL
5	10/11/73	WJL	WJL

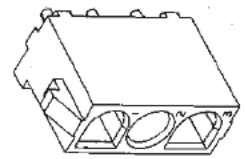
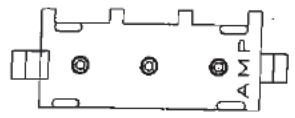
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.



SEE OR A-A



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 (.062) THICK P.C. BOARD



3 DIMENSIONAL MODEL SCALE 4:1

HOUSING BRONZE, PDC FIN	ALLOY: UL94V-0 WHITE	1596238
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
DATE: 10/11/73	DATE: 10/11/73	DATE: 10/11/73
BY: WJL	BY: WJL	BY: WJL
CHKD: WJL	CHKD: WJL	CHKD: WJL
APPROVED: WJL	APPROVED: WJL	APPROVED: WJL
PROJECT NUMBER: 109-11-3	PROJECT NUMBER: 109-11-3	PROJECT NUMBER: 109-11-3
CIRCUIT IDENTIFICATION: 109-11-3	CIRCUIT IDENTIFICATION: 109-11-3	CIRCUIT IDENTIFICATION: 109-11-3
UNIVERSAL RATE: 109-11-3	UNIVERSAL RATE: 109-11-3	UNIVERSAL RATE: 109-11-3
DATE: 10/11/73	DATE: 10/11/73	DATE: 10/11/73
BY: WJL	BY: WJL	BY: WJL
CHKD: WJL	CHKD: WJL	CHKD: WJL
APPROVED: WJL	APPROVED: WJL	APPROVED: WJL
PROJECT NUMBER: 109-11-3	PROJECT NUMBER: 109-11-3	PROJECT NUMBER: 109-11-3
CIRCUIT IDENTIFICATION: 109-11-3	CIRCUIT IDENTIFICATION: 109-11-3	CIRCUIT IDENTIFICATION: 109-11-3
UNIVERSAL RATE: 109-11-3	UNIVERSAL RATE: 109-11-3	UNIVERSAL RATE: 109-11-3

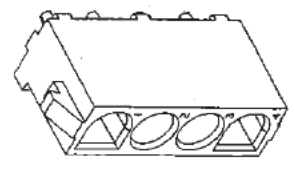
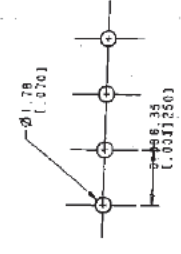
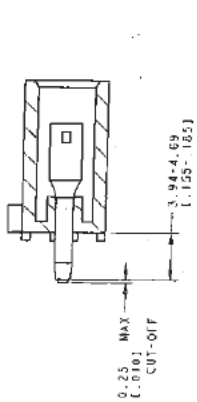
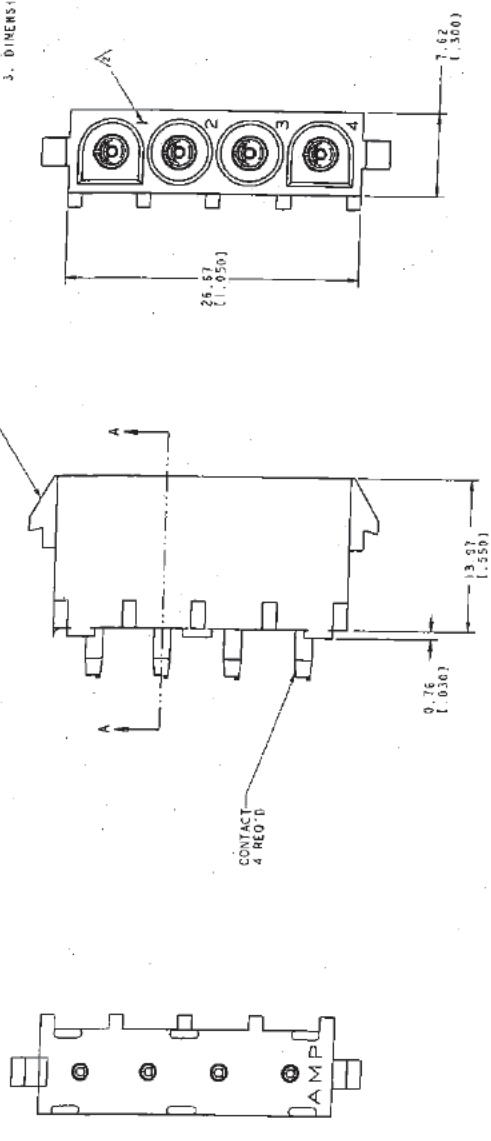


10/11/73

1. THIS DRAWING IS THE PROPERTY OF METRIC ELECTRIC INC. IT IS TO BE KEPT IN CONFIDENCE AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

REV	DATE	BY	CHK	DESCRIPTION
1	10/20/70	WJ	WJ	INITIAL DESIGN
2	11/10/70	WJ	WJ	REVISED PER 109-11-3
3	12/10/70	WJ	WJ	REVISED PER 109-11-3
4	01/10/71	WJ	WJ	REVISED PER 109-11-3
5	02/10/71	WJ	WJ	REVISED PER 109-11-3

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



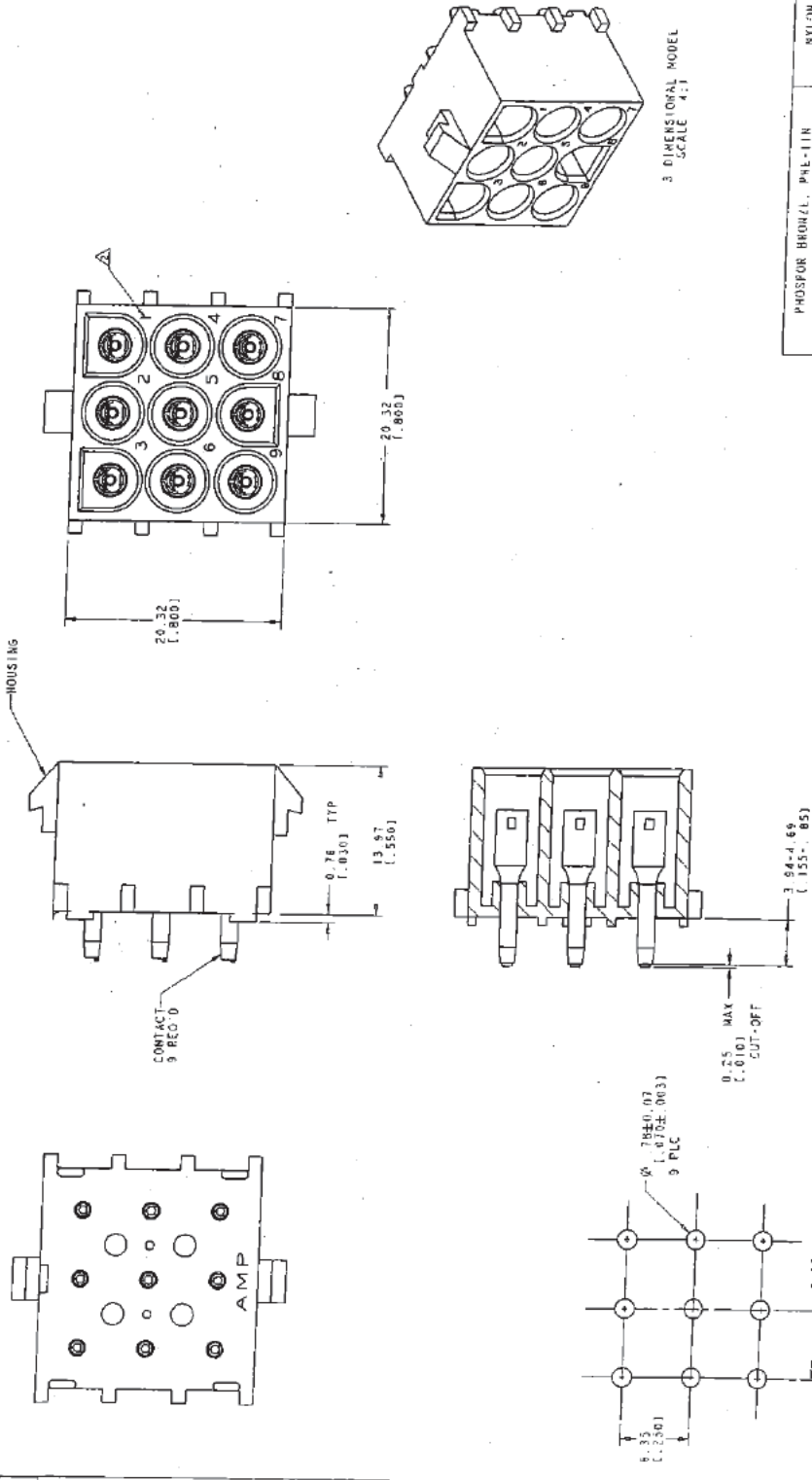
3 DIMENSIONAL MODEL
SCALE 4.

PROSEPOL BRONZE, PDC TIN	NYLON UL94V-0 WHITE	1596239-1
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
MANUFACTURER'S PART NUMBER	MANUFACTURER'S PART NUMBER	MANUFACTURER'S PART NUMBER
MANUFACTURER'S PART NUMBER	MANUFACTURER'S PART NUMBER	MANUFACTURER'S PART NUMBER
METRIC		
SOCKET MOUNTING PATTERN FOR 1.57 (.062) THICK P.C. BOARD		
4 CONTACT POS. CONTACTS	VERTICAL MOUNTING	
1.57 (.062)	1.78 (.070)	

FIG 241
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	CHKD	APP'D
1				
2				
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- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



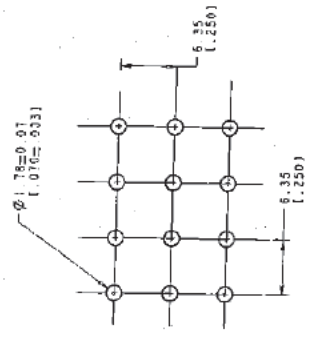
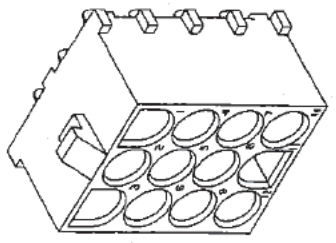
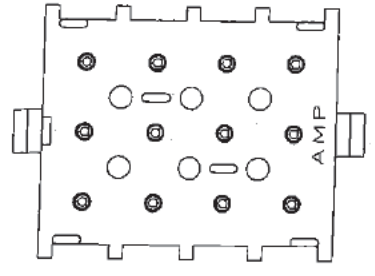
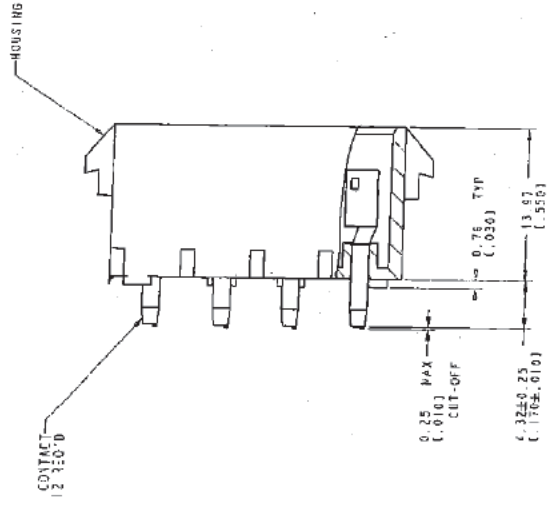
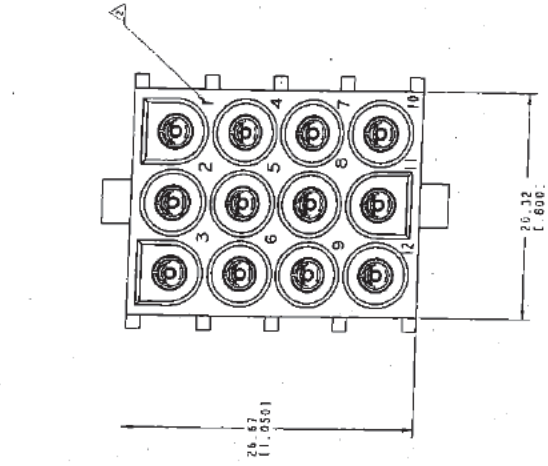
PROSEUR HONZEL, PAL-11N	NYLON, UL94V-0, WHITE	1586744-1
PIN CONTACT MATERIAL AND FINISH		
HOUSING MATERIAL AND COLOR		
PART NUMBER		
DESIGNED BY	DATE	REV
1	10/15/73	1
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METRIC

RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 THICK P.L.C. BOARD

REV	DATE	BY	CHKD
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2			
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1. PARTS COMPLY WITH AMP SOLDERABILITY SPEC. 109-11-2.
 2. CIRCUIT IDENTIFICATION CHARACTERS ARE AD-ALERT
 TO THE INDICATED CAVITY NUMBER, LOCATION AND
 ORIENTATION MAY DIFFER FROM PRINT.



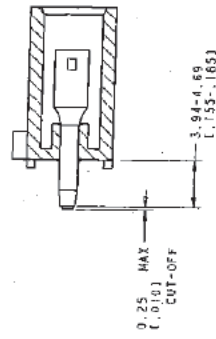
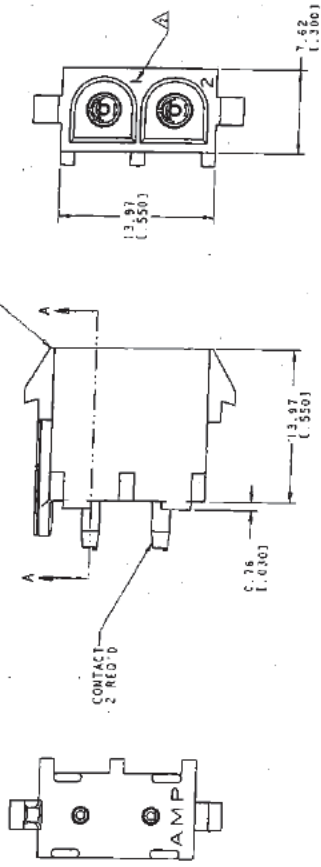
RECOMMENDED LAYOUT FOR
 1.571±0.021 THICK P.C. BOARD

3 DIMENSIONAL MODEL
 SCALE 2:1

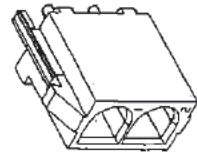
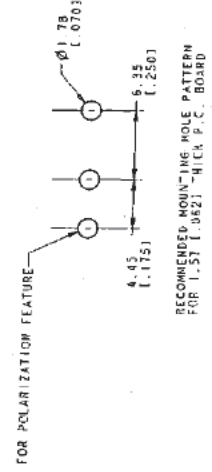
PH BRZ	PRE-TIN	NYLON 04P-0	WHITE	158R245-1
MATERIAL	FINISH	MATERIAL	COLOR	PART NO
PIN HOUSING 12 CONTACTS 1.571±0.021 THICK P.C. BOARD 12 CONTACT 150 DRAIN HOLES UNIVERSAL MATE-E-10N-15				
DATE	BY	CHKD	APP'D	REV
11/10/79	JL			1

METRIC

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-3.
 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION A-A



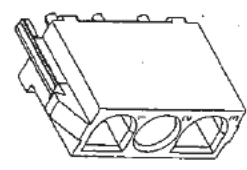
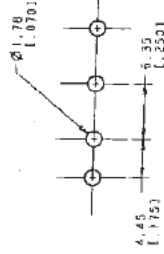
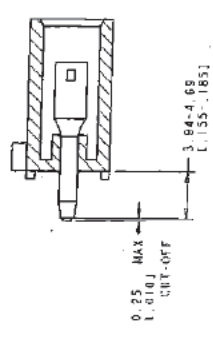
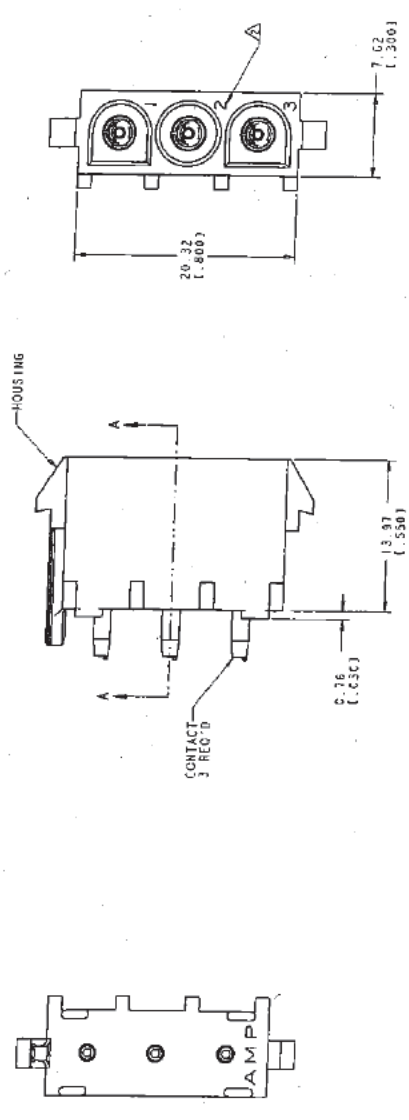
PHOSFOR BRONZE, PFC FIN CONTACT MATERIAL AND FINISH	NYLON, UL94V-0, WHITE HOUSING MATERIAL AND COLOR	1586247-1 PART NUMBER
PROPERTY	PROPERTY	PROPERTY
ALUMINUM	ALUMINUM	ALUMINUM
STEEL	STEEL	STEEL
BRASS	BRASS	BRASS
INVAR	INVAR	INVAR
COPPER	COPPER	COPPER
NICKEL	NICKEL	NICKEL
TITANIUM	TITANIUM	TITANIUM
OTHER	OTHER	OTHER
DATE	DATE	DATE
BY	BY	BY
CHECKED	CHECKED	CHECKED

METRIC
 SCHEMATIC ASSEMBLY POLARIZER
 2 CIRCUIT BOARD POLYIMIDE BOARD

FIG 244
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

REV	DATE	BY	CHK	DESCRIPTION
CH 00				

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



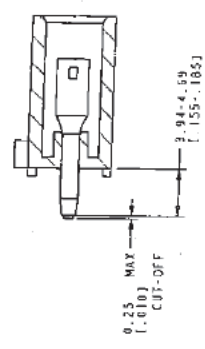
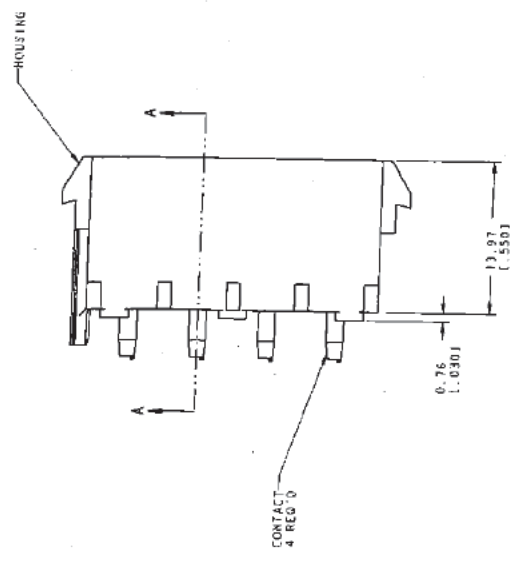
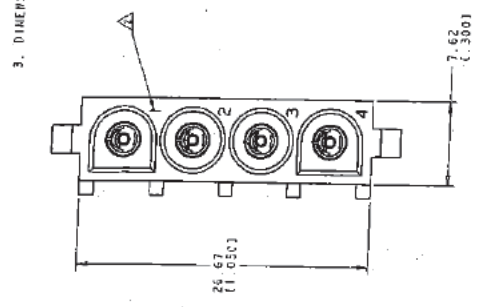
3 DIMENSIONAL MODEL
SCALE 4:1

CLOSURE BRONZE, FINE FIN.		NYLON, UL94V-0, WHITE	
CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR	
QTY	REVISION	QTY	REVISION
METRIC		PART NUMBER 1586218-1	
QTY		CIRCUIT HEAD ASSEMBLY POLYMER	
REVISION		3 CIRCUITS PER LINE	
DATE		DATE	
BY		BY	
CHK		CHK	
APP		APP	
DATE		DATE	
BY		BY	
CHK		CHK	
APP		APP	
DATE		DATE	
BY		BY	
CHK		CHK	
APP		APP	
DATE		DATE	
BY		BY	
CHK		CHK	
APP		APP	
DATE		DATE	
BY		BY	
CHK		CHK	
APP		APP	
DATE		DATE	

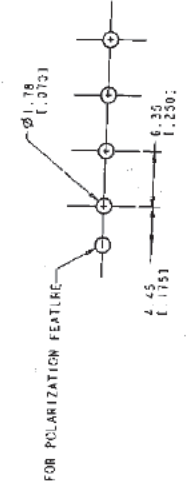
RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 (.062) THICK P. L. BOARD

CM	DD	REV	DATE	BY	CHKD
		1			
		2			
		3			

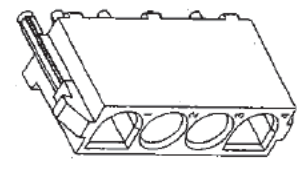
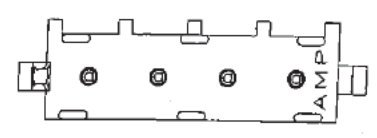
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 108-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION A-A



FOR POLARIZATION FEATURE
RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 T. DR23 THICK P.C. BOARD



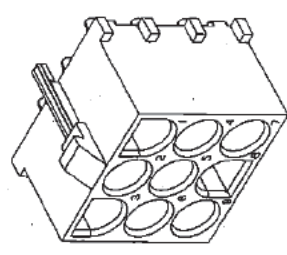
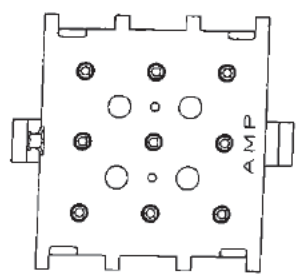
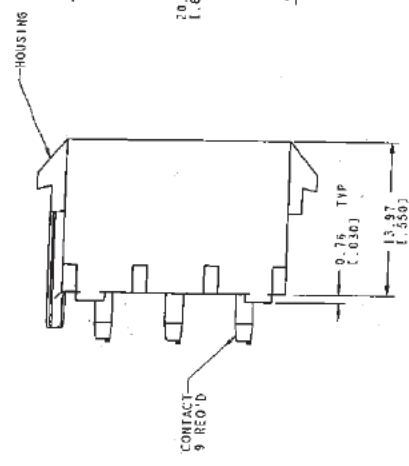
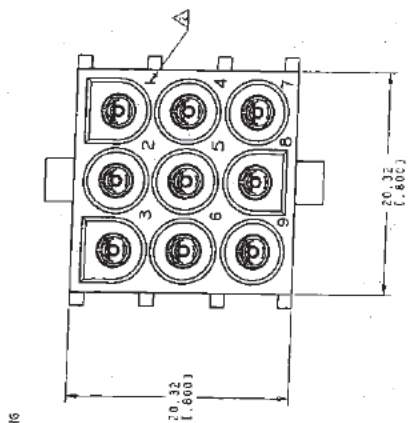
3 DIMENSIONAL MODEL
SCALE 4:1

DIOSPOR BRONZE, POC TIN		MILON, UL34V 0, WHITE		ISS0249, 1
CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR		PART NUMBER
DESIGNER	DATE	BY	DATE	REV.
CHKD	DATE	BY	DATE	REV.
APPV	DATE	BY	DATE	REV.
SECRET FABRIC ASSEMBLY TO BE USED IN CIRCUIT BOARD MOUNTING UNIVERSAL MATE-1-L04-10				
MATERIAL		DRAWING		REV
CIRCUIT BOARD		DATE		REV
CIRCUIT BOARD		DATE		REV
CIRCUIT BOARD		DATE		REV

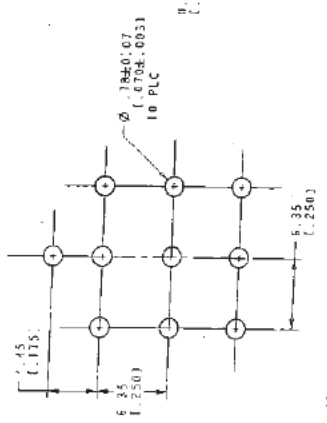
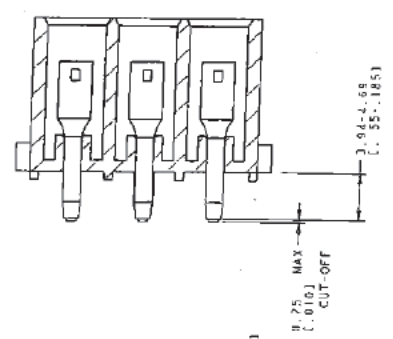


REV	DATE	BY	CHKD
1	10-21-62	WJ	WJ
2	10-21-62	WJ	WJ
3			
4			

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



3 DIMENSIONAL MODEL
SCALE 4:1



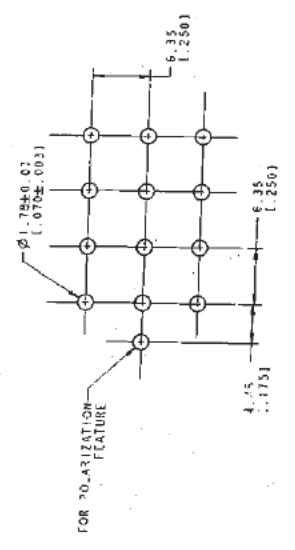
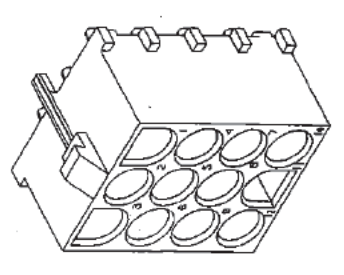
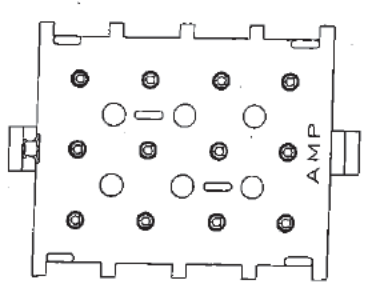
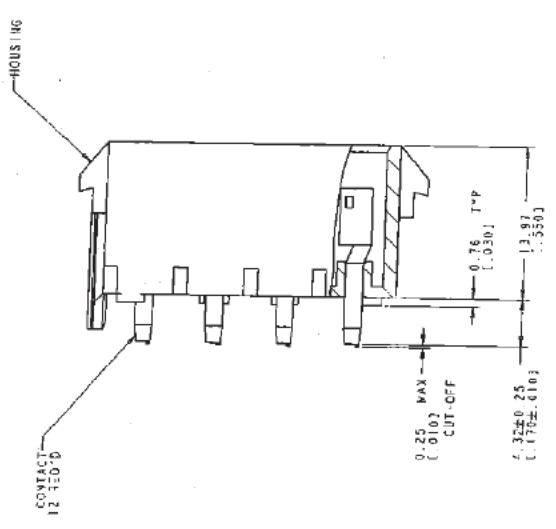
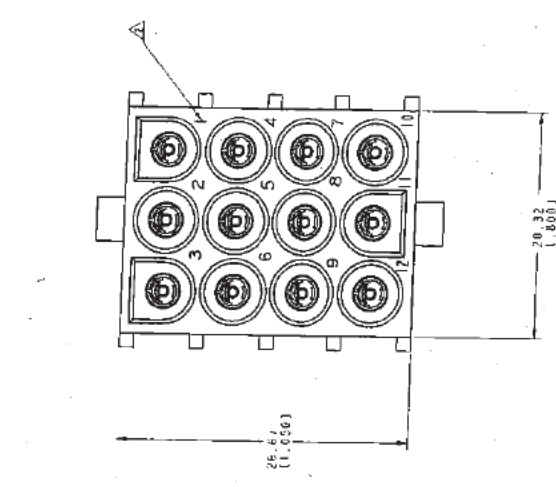
RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 (1.062) THICK P.C. BOARD

DESIGN	109-11-3	REV	1
DATE	10-21-62	BY	WJ
CHKD	WJ		
DESCRIPTION	METRIC		
MATERIAL	PLUGS BRONZE, PLE TIN	HOUSING MATERIAL	NILON, UL94V-0
FINISH	AG	FINISH	1587351-1
PLC	10	PLC	
ASSEMBLY	WELDER ASSEMBLY WORKS POLYMETAL		
UNIVERSAL MATE-IN-CON-TACT	UNIVERSAL MATE-IN-CON-TACT		
UNIVERSAL MATE-IN-CON-TACT	UNIVERSAL MATE-IN-CON-TACT		
UNIVERSAL MATE-IN-CON-TACT	UNIVERSAL MATE-IN-CON-TACT		

METRIC

FORM NO.	DATE	REV.	BY
CM 00			
C. METRIC P.C.			

1. PARTS COMPLY WITH AMP SOLDERABILITY SPEC. 100-11-2.
 △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.



RECOMMENDED LAYOUT FOR 1.571 ± 0.021 THICK P.C. BOARD

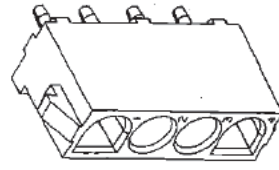
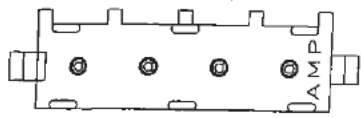
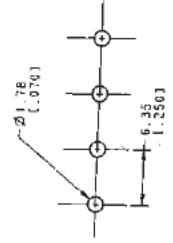
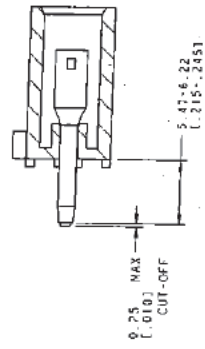
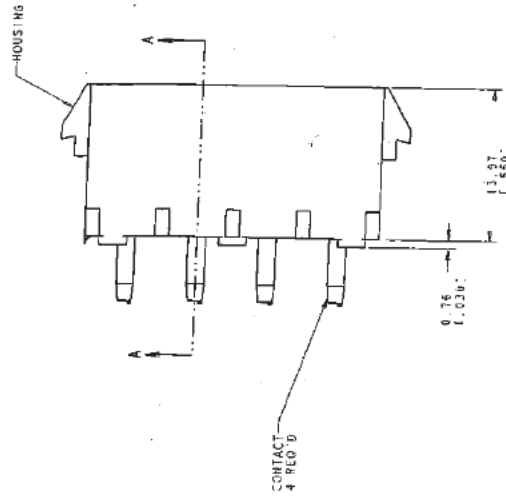
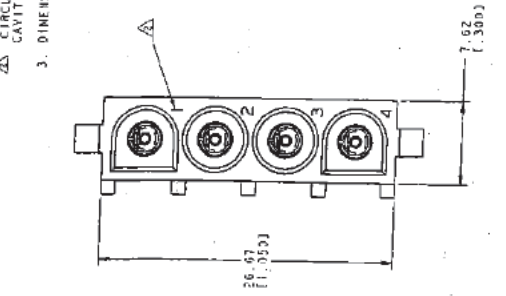
3 DIMENSIONAL MODEL SCALE 4:1

PH BRZ	PRE-TIN	NYLON 94V-0	WHITE	1386253-1	
MATERIAL	FINISH	MATERIAL	COLOR	PART NO	
ROUSING		Note: Dimensions are shown for the assembly. The actual dimensions of the individual components may vary slightly.			
HEADERS ASSEMBLY DOCKET, POLARIZED, 12 CONTACT, MATERIAL: NYLON 94V-0.					



CM	00	REV	DATE
1	REVISED	10	10
2	REVISED	10	10
3	REVISED	10	10
4	REVISED	10	10

- 1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 108-11-3.
- 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



PHOSFOR BRONZE - PFC TIN	NYLON, UL94V-0 WHITE	158223
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED
ASSEMBLY	ASSEMBLY	ASSEMBLY
SOCKET NUMBER ASSEMBLY	4 CIRCUIT, 200 DRAIN P.C.S.	UNIVERSAL, WATE-1-LIN
DATE	DATE	DATE
BY	BY	BY
CHECKED	CHECKED	CHECKED
APPROVED	APPROVED	APPROVED



RECOMMENDED MOUNTING HOLE PATTERN FOR 3.18 [0.125] THICK P.C. BOARD

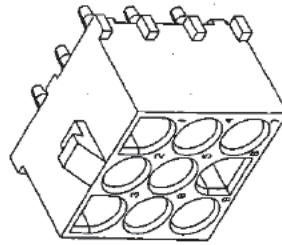
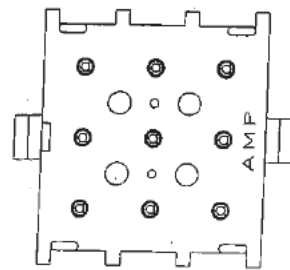
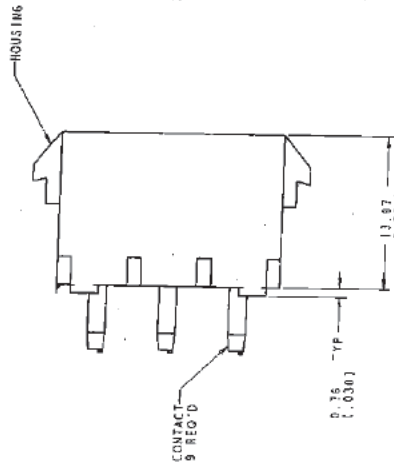
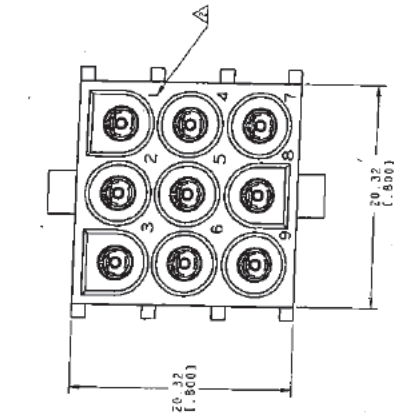
3-DIMENSIONAL MODEL SCALE 4:1

UNLESS OTHERWISE SPECIFIED

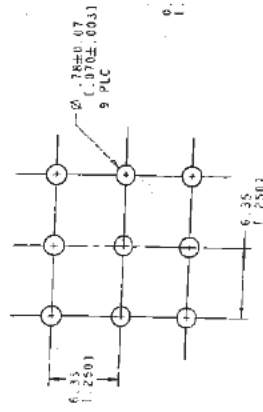
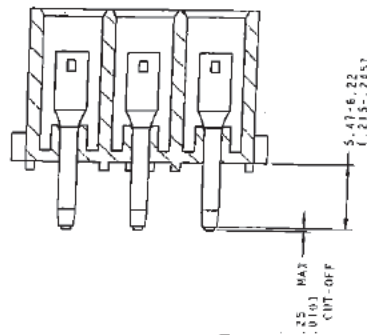
FIG 251
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	CHK'D	APP'D	DESCRIPTION
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2	11-10-63	W. J. H.	W. J. H.		REVISED TO 100
3	11-10-63	W. J. H.	W. J. H.		REVISED TO 100
4	11-10-63	W. J. H.	W. J. H.		REVISED TO 100
5	11-10-63	W. J. H.	W. J. H.		REVISED TO 100
6	11-10-63	W. J. H.	W. J. H.		REVISED TO 100
7	11-10-63	W. J. H.	W. J. H.		REVISED TO 100
8	11-10-63	W. J. H.	W. J. H.		REVISED TO 100
9	11-10-63	W. J. H.	W. J. H.		REVISED TO 100
10	11-10-63	W. J. H.	W. J. H.		REVISED TO 100

- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.



3 DIMENSIONAL MODEL
SCALE 4:1



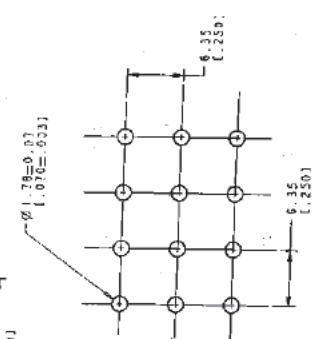
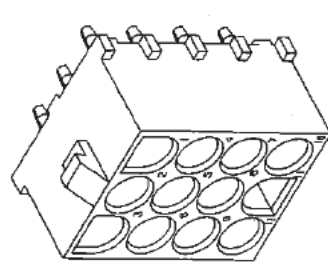
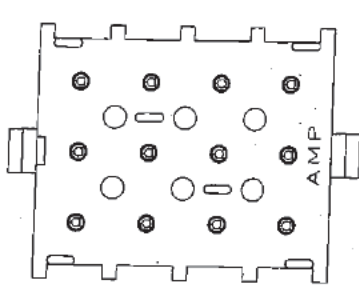
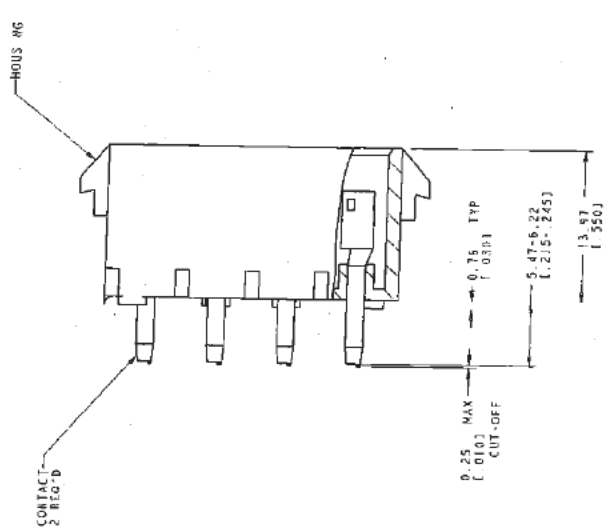
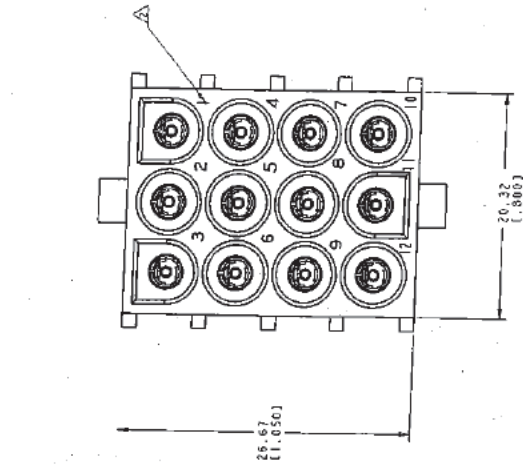
RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.18 (1.25) THICK P.C. BOARD

POSITION	BRONZE, PRC TIN	NYLON	UL94V-0	1586261 J
PIN CONTACT MATERIAL AND FINISH	NYLON	UL94V-0	HOUSING MATERIAL	PART NUMBER
MANUFACTURER	TELEPHON	TELEPHON	TELEPHON	TELEPHON
DATE	DATE	DATE	DATE	DATE
DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY
CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY
APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY
DATE	DATE	DATE	DATE	DATE
REV	REV	REV	REV	REV
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1. PARTS COMPLY WITH AMP SOLDERABILITY SPEC. 109-11-2.
 △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITY IN THE IDENTIFICATION AND ORIENT ON WAY DIFFER FROM PRINT.



RECOMMENDED LAYOUT FOR
 3.18 (±.125) THICK P.C. BOARD

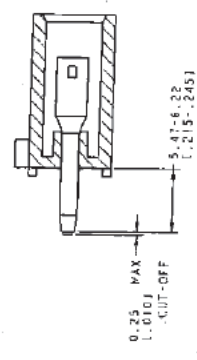
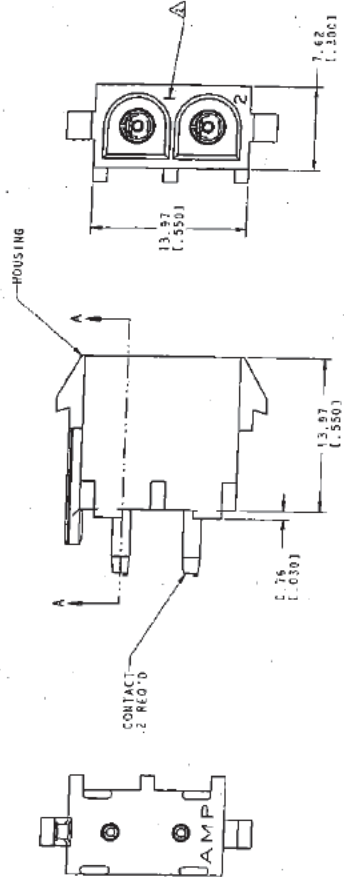
3 DIMENSIONAL MODEL
 SCALE 4:1

PH BRZ	PRE-TIN	NYLON 94V-0	NATURAL	156E26S-1	PART NO
MATERIAL	FINISH	MATERIAL	COLOR		
FIN		HOUSING			
1. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN MILLIMETERS. 2. DIMENSIONS IN PARENTHESES ARE IN INCHES. 3. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED. 4. DIMENSIONS TO SURFACE UNLESS OTHERWISE SPECIFIED. 5. DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED. 6. DIMENSIONS TO SURFACE UNLESS OTHERWISE SPECIFIED. 7. DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED. 8. DIMENSIONS TO SURFACE UNLESS OTHERWISE SPECIFIED. 9. DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED. 10. DIMENSIONS TO SURFACE UNLESS OTHERWISE SPECIFIED. 11. DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED. 12. DIMENSIONS TO SURFACE UNLESS OTHERWISE SPECIFIED.					
DESIGNED BY	CHECKED BY	DATE	SCALE	QUANTITY	UNIT
DR	DR				
UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL
UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL	UNIVERSAL MACHINE TOOL

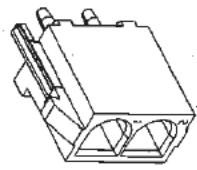


- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.

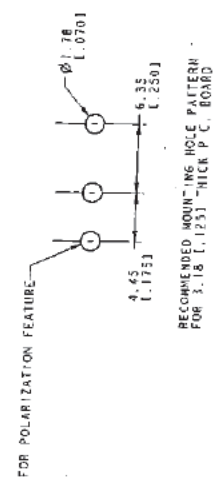
FORM	DATE	BY	CHKD
CM	08		
C	REVISED BY		



SECTION A-A



3 DIMENSIONAL VIEW
SCALE 4:1

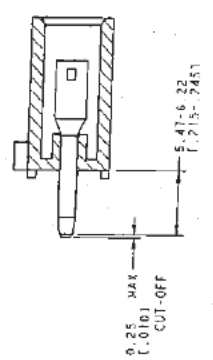
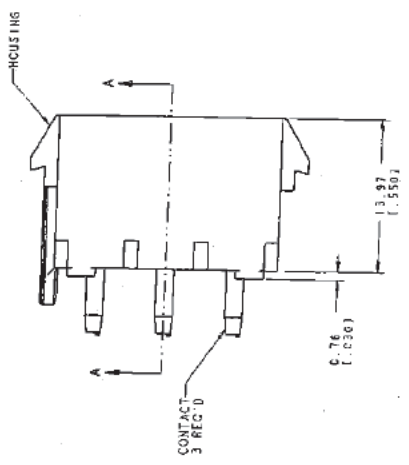
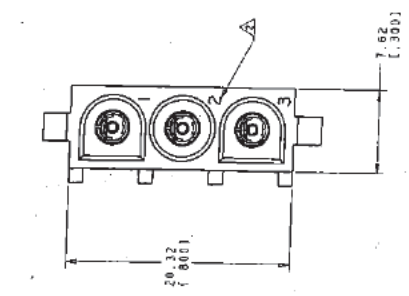


FINISH: FUSION BRONZE, PRE TIN	HOUSING MATERIAL AND COLOR	12662ET 1
CONTACT MATERIAL AND FINISH		PART NUMBER
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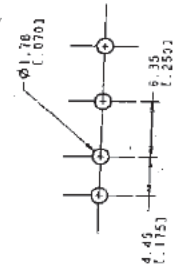


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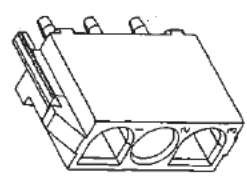
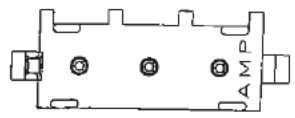
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION A-A



RECOMMENDED MOUNTING HOLE PATTERN FOR 3 1/8 (1.25) THICK P.C. BOARD



3-D DIMENSIONAL MODEL
SCALE 4:1

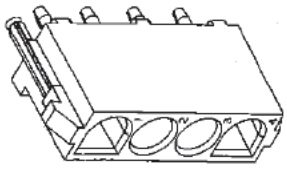
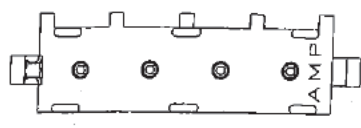
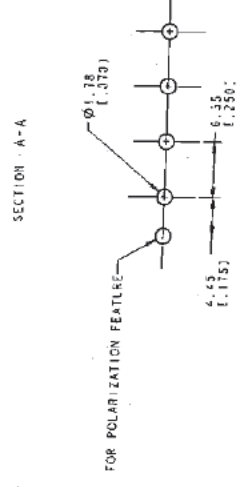
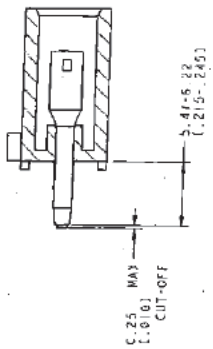
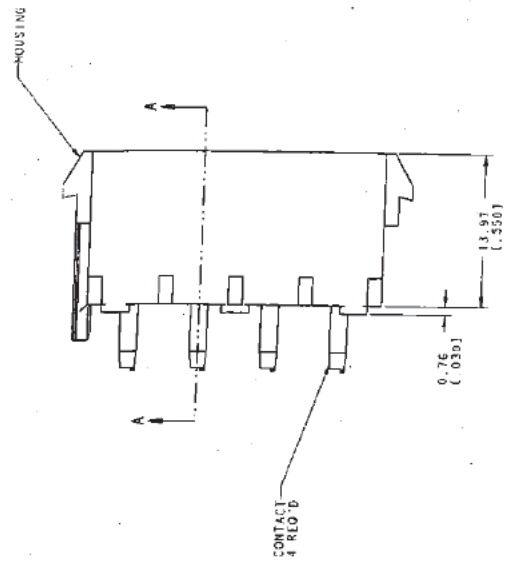
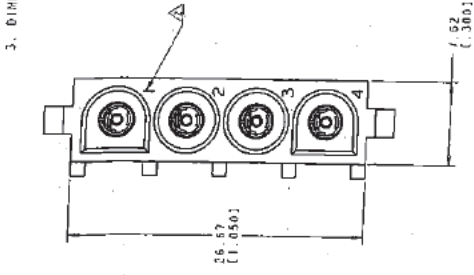
HOUSING MATERIAL AND COLOR	NYLON, UL 94V-0, WHITE	1582268-1
CONTACT MATERIAL AND FINISH	PHOSPOR BRONZE, P105 TIN	
MANUFACTURER	TELEPHON RESEARCH	
DATE	10/11/68	
REV	1	
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REV	3	
REV	4	
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REV	10	



TELEPHON RESEARCH
1582268-1

REV	DATE	BY	CHKD
1	10-11-61	DR	DR
2			
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1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 100-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



3 DIMENSIONAL MODEL
SCALE 4:1

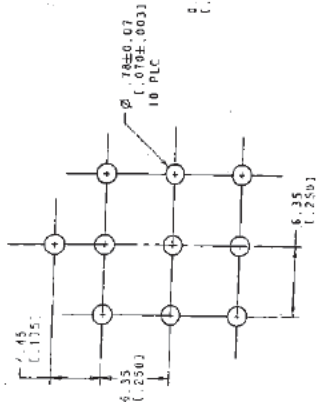
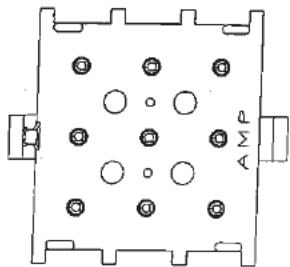
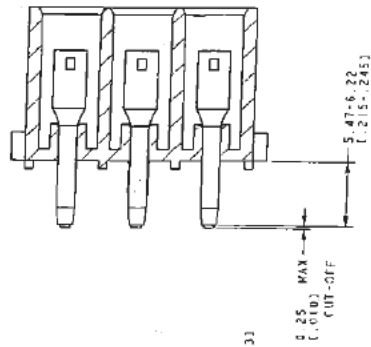
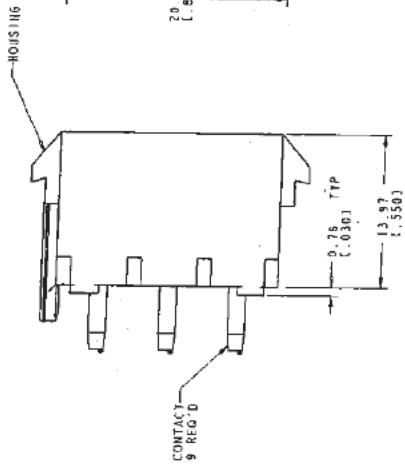
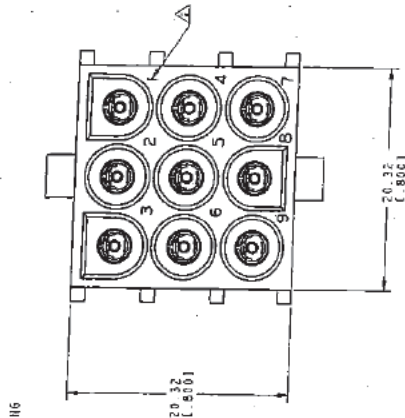
PHOSFOR BRONZE, PRE T'N	NYLON, UL94V-0 WHITE	1582265 I
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER
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DATE	DATE	DATE
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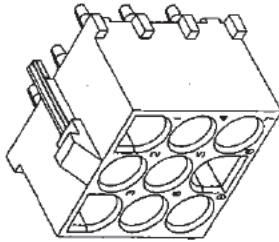
RECOMMENDED MOUNTING HOLE PATTERN
FOR 3.18 (0.125) THICK P.C. BOARD

REV.	DATE	BY	CHK	DESCRIPTION
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11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETETS ARE IN INCHES.



RECOMMENDED MOUNTING HOLE PATTERN FOR 3.15 (.125) THICK P.C. BOARD



3 DIMENSIONAL MODEL SCALE 4:1

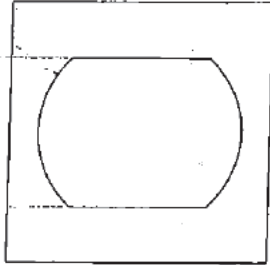
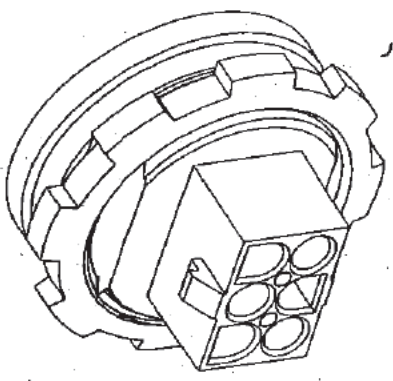
ITEM	DESCRIPTION	QUANTITY	UNIT
1	HOUSING	1	PCB
2	CONTACT	9	PLC

PROPERTY	VALUE	UNIT
PLIENSTOF BEOORZ.	NYLON, UL94V-0	1586274
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL	PART NUMBER
ROHS	ROHS COMPLIANT	
DATE		
BY		
CHKD BY		
APPROVED BY		
REV.		
DWG. NO.		
REV. DATE		
REV. BY		
REV. DATE		

METRIC

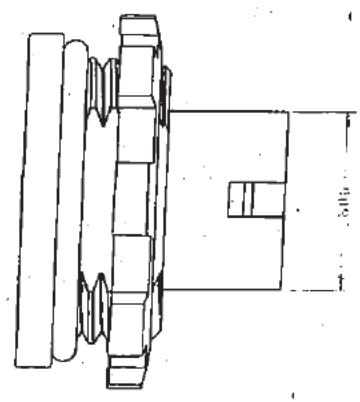
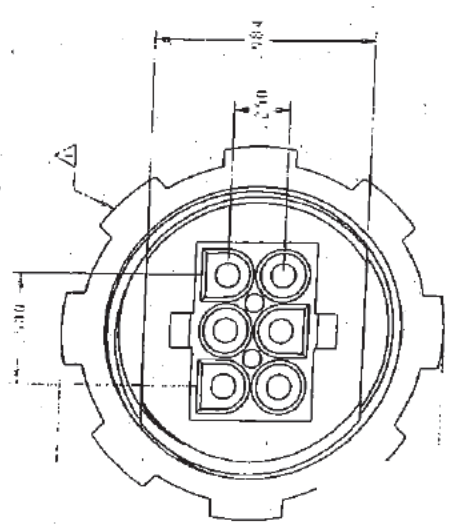
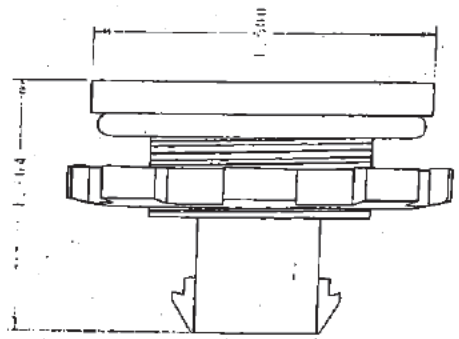
FIG 257
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

REV	DATE	BY	CHKD	DESCRIPTION
1				INITIAL DESIGN
2				REVISIONS
3				REVISIONS
4				REVISIONS
5				REVISIONS



RECOMMENDED
PANEL CAP
SCALE

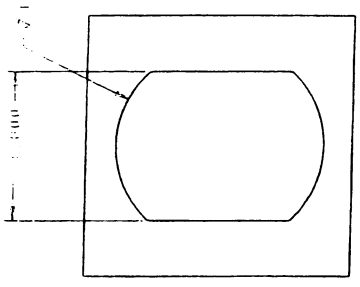
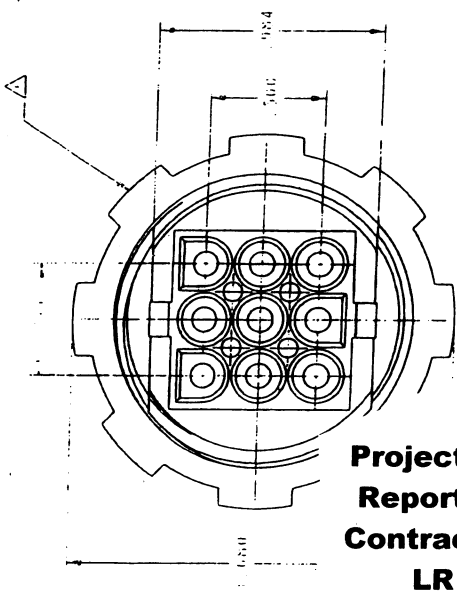
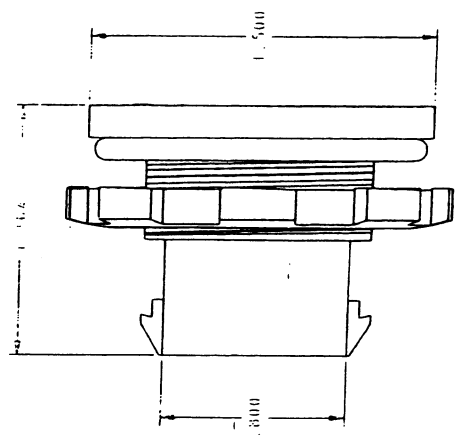
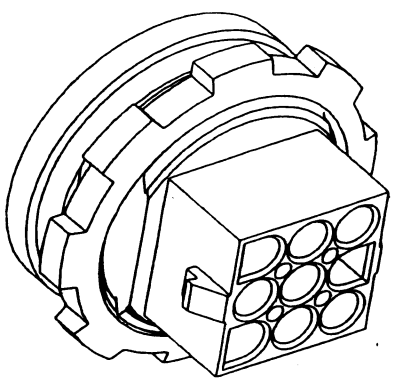
NOTE: DO NOT LIGHT THE CAP. USE
PLACES SYMMETRICALLY AROUND
PERIMETER OF LOCKMUT.
LOCKING MUT: METAL PLATE
HOUSING: NYLON FLAME RESISTANT 40% RING: RESORNE



DATE	BY	CHKD	DESCRIPTION
12/15/68	W. J. HARRIS		INITIAL DESIGN
12/15/68			REVISIONS
12/15/68			REVISIONS
12/15/68			REVISIONS
12/15/68			REVISIONS

1604210

REV	DATE	DESCRIPTION
1	10/15/74	ISSUE FOR FABRICATION
2	10/15/74	ISSUE FOR FABRICATION



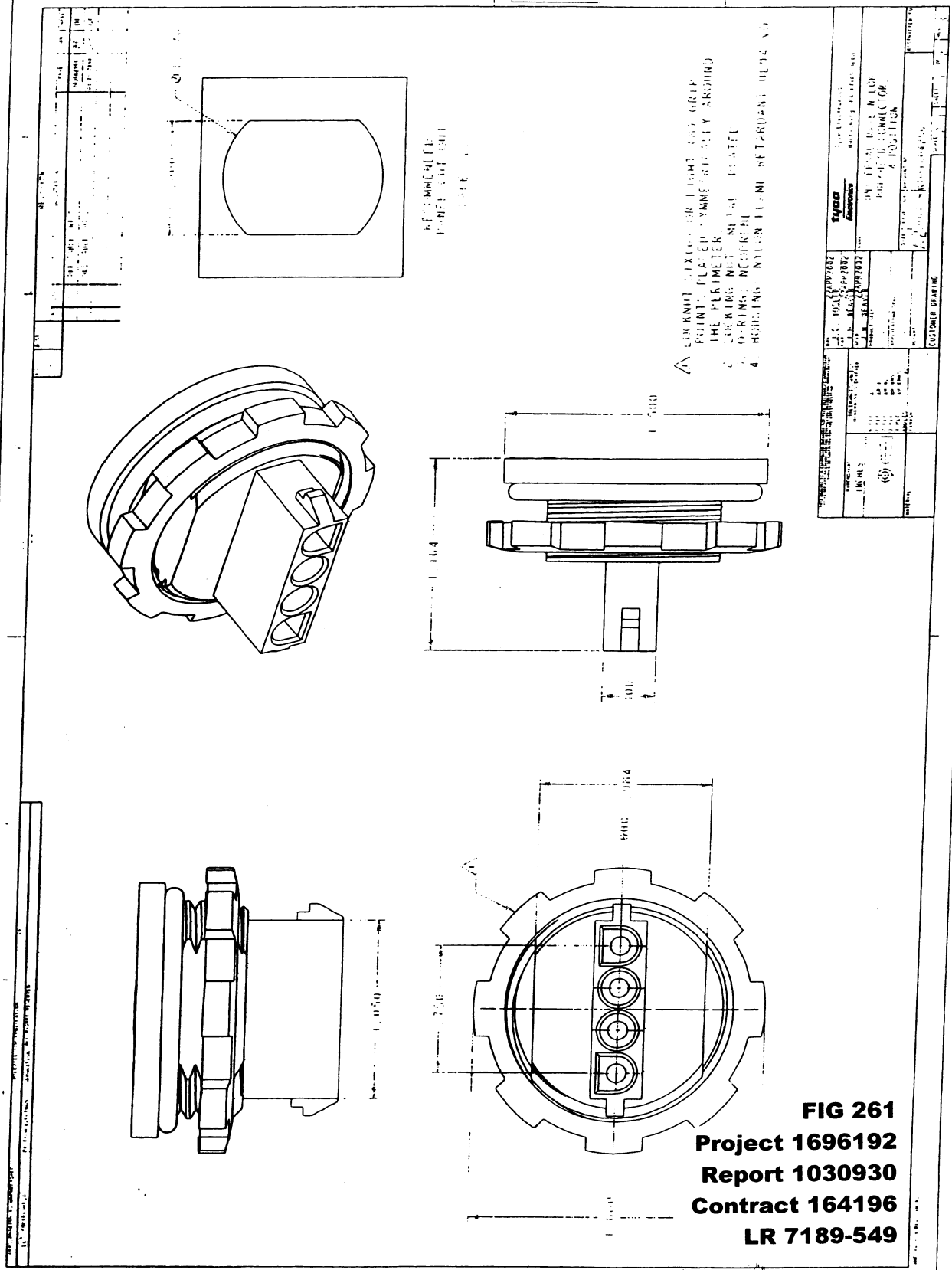
RECOMMENDED
PANEL CUT-OUT

- △ FIX TO OR LIGHT OR GRIP POINTS
- PLATED SYMMETRICALLY AROUND
- PERIMETER OF CONTACT
- 2 LOCKING NUT METAL PLATED
- 3 HOUSING NYLON FLAME RETARDANT
- 4 O-RING NYLON PREPREG

UNIVERSAL MATE-N-LOK DUPLEX CONNECTOR 9 POSITION	1604254
UNIVERSAL MATE-N-LOK DUPLEX CONNECTOR 9 POSITION	1604254
UNIVERSAL MATE-N-LOK DUPLEX CONNECTOR 9 POSITION	1604254

FIG 260
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

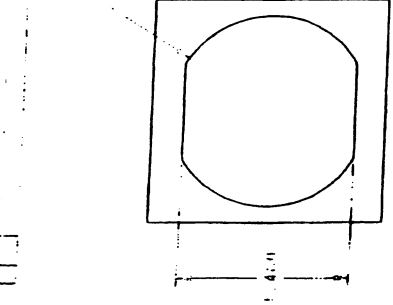
1604254



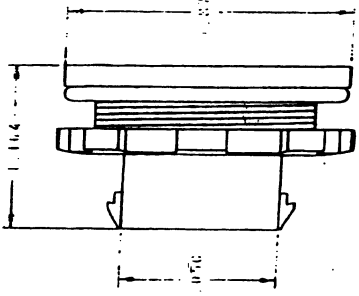
1604256

FIG 261
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

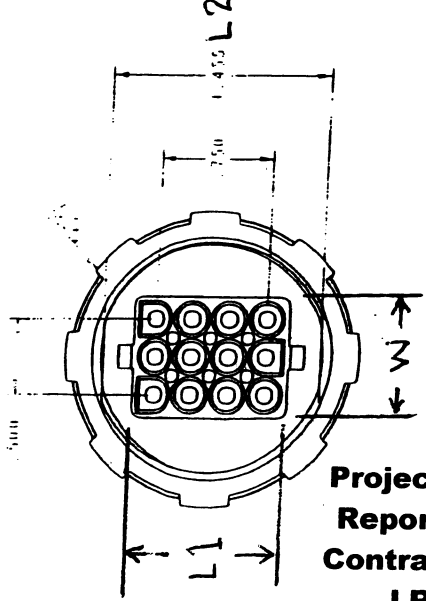
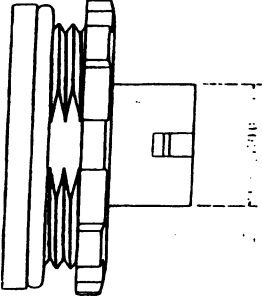
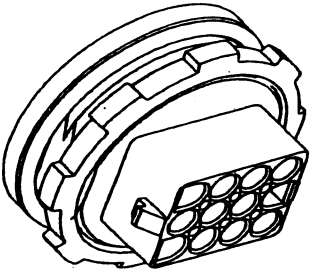
REV	DATE	BY	CHKD	DESCRIPTION
1				AS SHOWN



RECOMMENDED
PART CONTACT



WALK TO OR LIGHT AND DROP POINTS
PLACED SYMMETRICALLY AROUND
PERIMETER OF CONTACT
LOADING MUST BE METAL PLATED
HOUSING: NYLON FRAME RETROFIT 5014 303
4.0-RING: NESPHERE

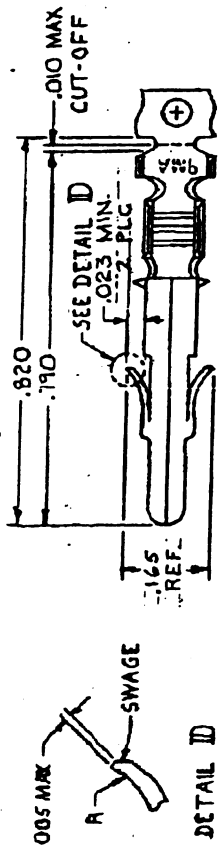


UNIVERSAL MILITARY COP BULKHEAD CONTACT	1350541	1350541
UNITED STATES	1350541	1350541
ESTIMATE NUMBER		

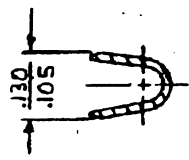
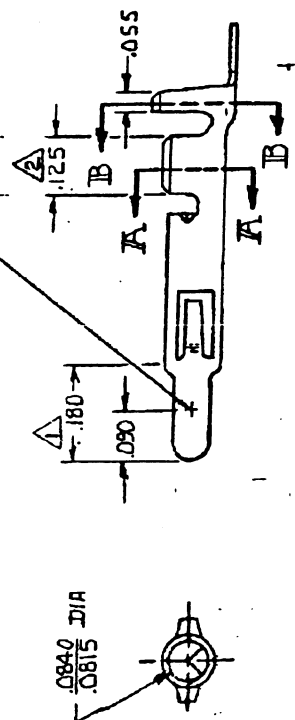
1734091

FIG 262
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

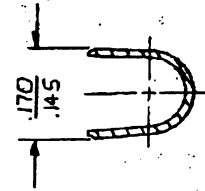
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POINT OF MEASUREMENT



SECTION A-A



SECTION B-B

- ▲ PLATED WITH .000030 GOLD, OVER .000050 NICKEL UNDERPLATE.
- ▲ PLATED INTERNALLY WITH .000030 GOLD.

FIG 263
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	N	REDRAWN W/O CHANGE	M-6457 4-5-81	MHF/AH
	P	REVISED	M-7350 12/2/81	PAJ/SH
	R	REVISED	AG 57 10/20/82	AG/SH
	R1	RESTORED	12/18/82	PAJ/RS
	S	REVISED PER CM-1728	9-6-88	PAJ/RS
	T	OBSOLETE - 5 PER CM 2309	5-3-89	TR/RS
	U	REVISED PER CM-3286	2-7-91	PAJ/RS
	V	REV. PER EC-0730-3607-91	1-6-94	RV/RS
	W	REV. PER EC-0730-0141-94	7-26-94	RV/RS
	Y	OBS - 8 PER EC 0730-0135-96	7-19-96	JH/RS

350547-7	MINI	GOLD	.012 BRASS	350218-7
350547-6			.012 PH. BRZ	350218-6
330547-3		PRE-TIN	.012 PH. BRZ	350218-3
350547-2	MINI	GOLD	.012 BRASS	350218-2
350547-1		PRE-TIN		350218-1
LOOSE PIECE (REF)	APPLICATOR TYPE	FINISH	MATERIAL	PART NO

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ON: DIMENSIONS: .010" ± .005" ANGLES: E

WIRE RANGE: 20-14 AWG

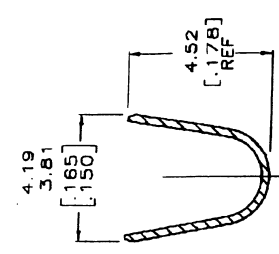
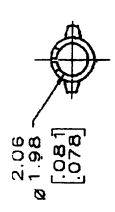
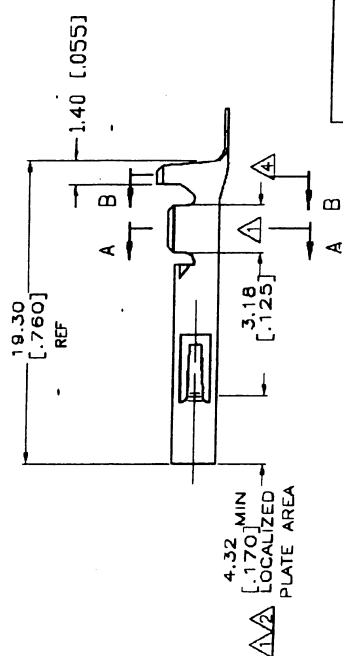
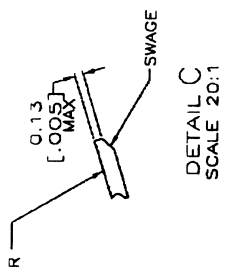
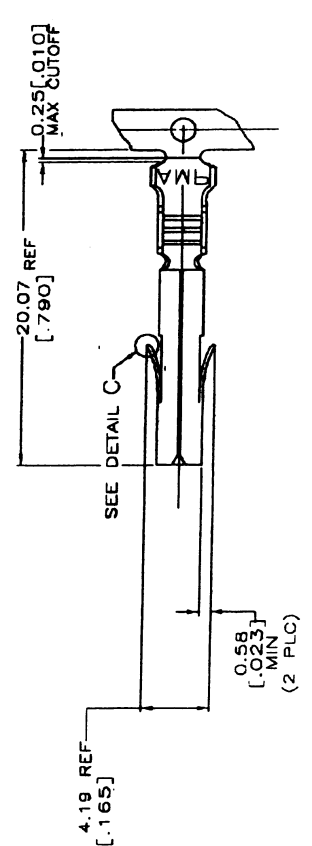
INSULATION RANGE: .130 DIA MAX

CONTRACT NO	DR. FENER 5-C-81	AMP INCORPORATED Harrisburg, PA.
CHK	D.S. Yocum 6/9/81	NAME PIN, UNIVERSAL MATE-N-LOK
APPRO	D. B. B. 6-10-81	SIZE CODE IDENT NO B 00779
DESIGN APPRO		DRAWING NO 350218
OTHER APPRO		SCALE 4-1 SHEET

CUSTOMER DRAWING

THIS DRAWING IS UNCLASSIFIED				DATE				REVISED PER				DATE				DRAWN				BY											
RELEASED FOR PUBLICATION				BY TACO ELECTRONICS CORPORATION.				ALL RIGHTS RESERVED.				CM 00				AC				07-NOV-03				KW				SR			
LOS		DGT		P		LWR		AC		REVISED PER		063B-0816-03		DATE		07-NOV-03		DRAWN		BY		KW		SR							

- △ 0.00076[.000030] THK GOLD OVER NICKEL ON INSIDE OF RECEPTACLE AND WIRE BARREL; REMAINDER OF CONTACT IS NICKEL PLATED.
- △ 0.00076[.000030] THK GOLD ON INSIDE OF RECEPTACLE; REMAINDER OF CONTACT IS NICKEL PLATED.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.
- △ PRELIMINARY, NOT FOR PRODUCTION.



SECTION B-B
SCALE 10:1

FIG 264
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

FINISH	APPLICATOR TYPE	MATERIAL	FINISH	APPLICATOR TYPE	MATERIAL	FINISH	APPLICATOR TYPE	MATERIAL	FINISH	APPLICATOR TYPE	MATERIAL	FINISH	APPLICATOR TYPE	MATERIAL	FINISH	APPLICATOR TYPE	MATERIAL
TIN	STANDARD	TIN	0.30	[.012]	BE	CU	1-350536-0										
TIN	MINI	TIN	0.30	[.012]	PH	BZ	350536-9										
GOLD	MINI	GOLD	0.30	[.012]	BRASS		350536-7										
GOLD	MINI	GOLD	0.30	[.012]	PH	BZ		350536-6									
TIN	MINI	TIN	0.30	[.012]	PH	BZ		350536-3									
GOLD	MINI	GOLD	0.30	[.012]	BRASS			350536-2									
TIN	MINI	TIN	0.30	[.012]	BRASS			350536-1									

THIS DRAWING IS A CONTROLLED DOCUMENT.

DESIGNER: K. WHITAKER
CHKD: S. RIDGILL
DATE: 07-NOV-03
PRODUCT SPEC: UNIVERSAL MATE-N-LOK™ SOCKET.

TOLERANCES UNLESS OTHERWISE SPECIFIED:
 0 PLC ±.010
 1 PLC ±.015
 2 PLC ±.020
 3 PLC ±.030
 4 PLC ±.040

DIMENSIONS: MM [INCHES]

MATERIAL: 14-20AWG

FINISH: -

WEIGHT: -

APPLICATION SPEC: -

SIZE: A3

CAGE CODE: 00779

DRAWING NO: C-350536

PART NUMBER: 350536-1

UNIVERSAL MATE-N-LOK™ SOCKET.

Typo Electronics Corporation
Harrisburg, PA 17105-3608

SCALE: 1:5

SHEET: 1 OF 1

REV: AC

H:\dmod\

AMP 1470-19 REV 31MAR2000

DRAWING HAD THIRD ANGLE PROJECTION
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 COPYRIGHT 1981

REV	DATE	DESCRIPTION
CM 53		AD REVISED PER EC 0638-0100-03

- 0.00076(.000030) THK GOLD OVER NICKEL ON INSIDE OF RECEPTACLE AND WIRE BARREL; REMAINDER OF CONTACT IS NICKEL PLATED.
- 0.00076(.000030) THK GOLD ON INSIDE OF RECEPTACLE, REMAINDER OF CONTACT IS NICKEL PLATED.
- DIMENSIONS IN BRACKETS ARE IN INCHES.
- PACKAGED AND SOLD IN PALLET LOADS ONLY. 44 REELS PER PALLET (110,000 CONTACTS).

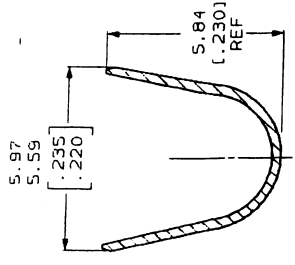
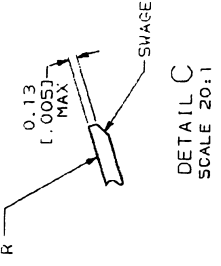
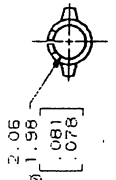
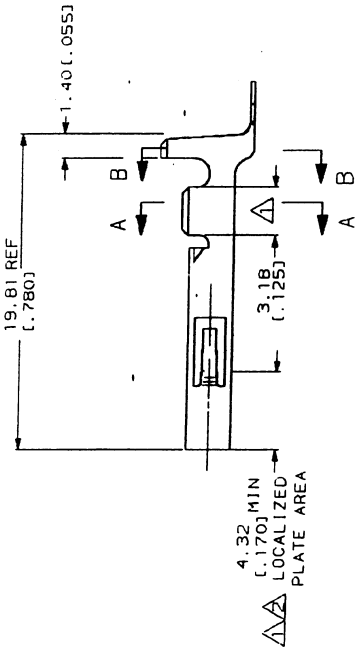
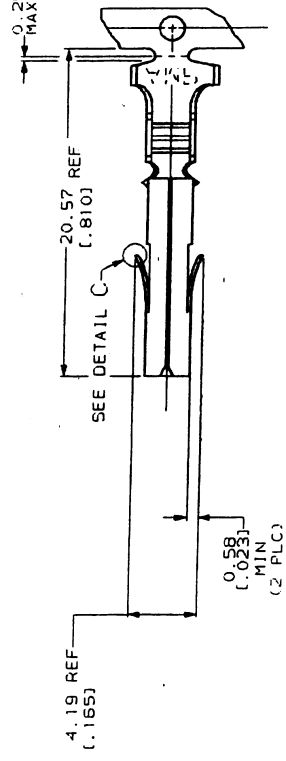


FIG 265
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

SECTION B-B
 SCALE 10:1



MAKE FROM	TIN	MATERIAL	PART NO
350551-7	GOLD	0.30 (.012) BRASS	1-350537-1
350551-6	GOLD	0.30 (.012) PH BZ	350537-7
350551-3	TIN	0.30 (.012) PH BZ	350537-6
350551-2	GOLD	0.30 (.012) PH BZ	350537-3
350551-1	TIN	0.30 (.012) BRASS	350537-2
350551-1	TIN	0.30 (.012) BRASS	350537-1

DO NOT SCALE PRINT.
 UNLESS SPECIFIED
 DIMENSIONS IN IN (INCHES)
 1 DIMENSIONS ON 1
 2 PLC DEC * 0.13(.005)
 3 PLC DEC * 0.13(.005)
 4 WIRE RANGE *
 5 20-14 ANG

OR E-11-91
 R. SALTON
 CHK 6-11-91
 R. SHING
 APPD 6-12-91
 D. SELF
 APPD 6-12-91
 D. SELF
 PRODUCT SPEC

AMP
 AMP Incorporated
 Harrisburg, PA 17105-3608

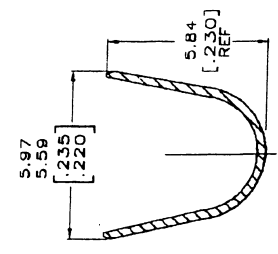
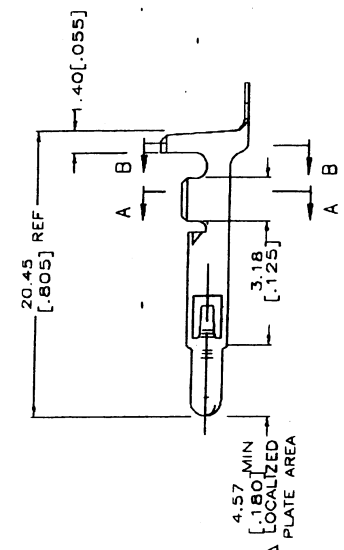
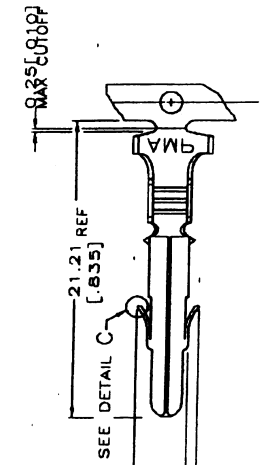
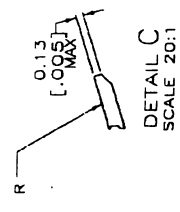
NAME
**SOCKET,
 UNIVERSAL MATE-N-LOK™**

SIZE
 CAGE CODE
 00779
 DRAWING NO
 350537
 SCALE
 5:1
 SHEET
 1 OF 1

CUSTOMER DRAWING

REV	DATE	BY	CHK	APP
CM	DD	AA	REVISED PER EC 0038-0142-04	

- 1. 0.00076[.000030] MIN THK GOLD IN LOCALIZED PLATE AREA AND 0.00127[.000005] MIN THK GOLD FLASH ON REMAINDER OF CONTACT OVER 0.00127[.000050] MIN THK NICKEL UNDERPLATE.
- 2. 0.00076[.000030] MIN THK GOLD IN LOCALIZED PLATE AREA OVER 0.00127[.000050] MIN THK NICKEL UNDERPLATE.
- 3. DIMENSIONS IN BRACKETS ARE IN INCHES.



SECTION B-B
SCALE 10:1

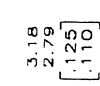
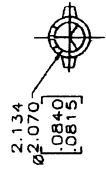


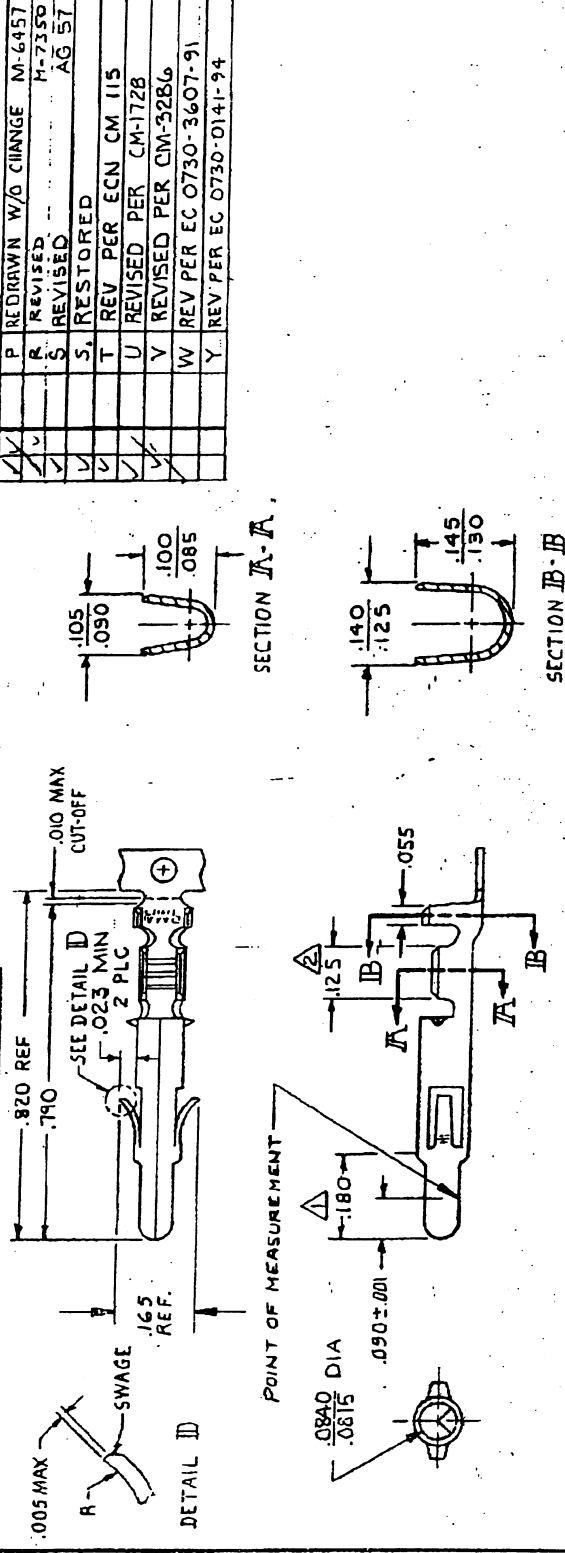
FIG 266
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

350552-7	GOLD	0.30	[.012]	BRASS	350538-7
350552-8	GOLD	0.30	[.012]	PH BZ	350538-8
350552-3	TIN	0.30	[.012]	PH BZ	350538-3
350552-2	GOLD	0.30	[.012]	BRASS	350538-2
350552-1	TIN	0.30	[.012]	BRASS	350538-1

THIS DRAWING IS A CONTROLLED DOCUMENT. THE MATERIAL IS IDENTIFIED BY THE MATERIAL SPECIFICATION. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. TYPE: CUSTOMER DRAWING. PART NO: 350538. UNIVERSAL MATE-N-LOCK™. CUSTOMER DRAWING. 20-14 ANG. 8 (01/200) DR. MAX. 5.1. 1. AA.

DRAWING MADE IN THIRD ANGLE PROJECTION

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▲ PLATED WITH .000030 GOLD, OVER .000050 NICKEL UNDERPLATE.
 ▲ PLATED INTERNALLY WITH .000030 GOLD.

FIG 267
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

1		2		3		4	
LOC. CM		DIST. 53		REV. 1		REV. 2	
LTR	DESCRIPTION	DATE	APPROVED	LTR	DESCRIPTION	DATE	APPROVED
P	REDRAWN W/O CHANGE	M-6457	6-5-81	MISF/6/H			
R	REVISED	M-7350	7/20/81	MS/3/H			
S	REVISED	AG 57	9/24/83	MS/3/H			
S	RESTORED		4/19/85	MS/3/H			
T	REV PER ECN CM 115		8-6-85	CM/RS			
U	REVISED PER CM-1728		9-6-88	PA			
V	REVISED PER CM-3286		2-7-91	PPC			
W	REV PER EC 0730-3607-91		1-7-94	RV			
Y	REV PER EC 0730-0141-94		7-26-94	KV			

350690-7	GOLD	.012 BRASS	350561-7
350690-3	PRE-TIN		
350690-2	GOLD	.012 PH. BRZ.	350561-3
350690-1	PRE-TIN	.012 BRASS	350561-2
100SE RECF (REF)	FINISH	MATERIAL	350561-1

CONTRACT NO		AMP INCORPORATED Harrisburg, Pa.	
DR. FEHER 5-6-81		NAME PIN,	
CHKD 11/21/84 6/9/81		UNIVERSAL MATE-N-LOK	
APPR 11/21/84 6/9/81		SIZE CODE IDENT NO	
APPR 11/21/84 6/9/81		B 00779	
APPR 11/21/84 6/9/81		DRAWING NO	
APPR 11/21/84 6/9/81		350561	
DESN APPD		SCALE 4-1	
OTHER APPD		SHEET 74	

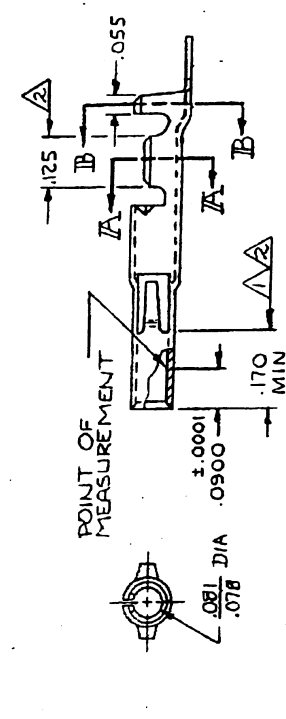
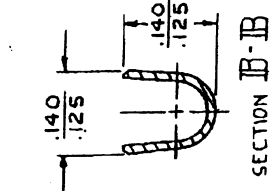
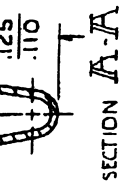
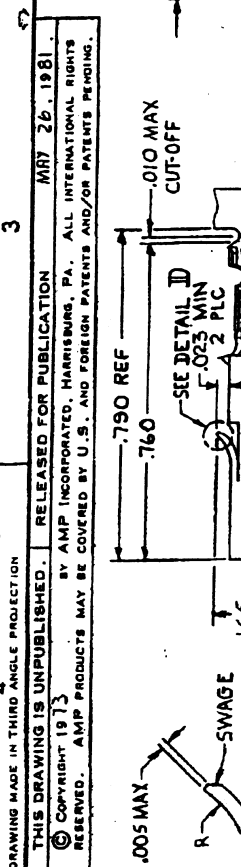
AMP 1470-13 REV 8-79

CUSTOMER DRAWING

1	LOC	CM	DIST	53
---	-----	----	------	----

REVISIONS	
LTR	DESCRIPTION
S	LINE DRAWN W/O CHANGE M-6457
T	ADDED ORG. DRG. Dwg. T. OF MEAS. M-7351
U	REVISED AS 57
U	RESTORED
V	REV PER ECN CM 116
W	REV PER EC 0730-3607-91

ZONE	DATE	APPROVED
1	6-1-81	MSF
2	11/18/81	TJ/SJ
3	11/18/81	RS
4	11/18/81	RS
5	11/18/81	RS
6	11/18/81	RS
7	11/18/81	RS
8	11/18/81	RS
9	11/18/81	RS
10	11/18/81	RS



▲ .000030 THICK GOLD OVER NICKEL ON INSIDE OF RECEPTACLE
 ▲ REMAINDER OF CONTACT IS NICKEL PLATED.
 ▲ .000030 THICK GOLD OVER NICKEL ON INSIDE OF RECEPTACLE AND WIRE
 ▲ BARREL; REMAINDER OF CONTACT IS NICKEL PLATED.

350689-7	GOLD	.010 BRASS	350570-7
		.010 PH. BRZ	350570-6
350689-3	PRE-TIN	.00 PH. BRZ	350570-3
350689-2	GOLD	.010 BRASS	350570-2
350689-1	PRE-TIN	.010 BRASS	350570-1
LOOSE PIECE (REF)	FINISH	MATERIAL	PART NO

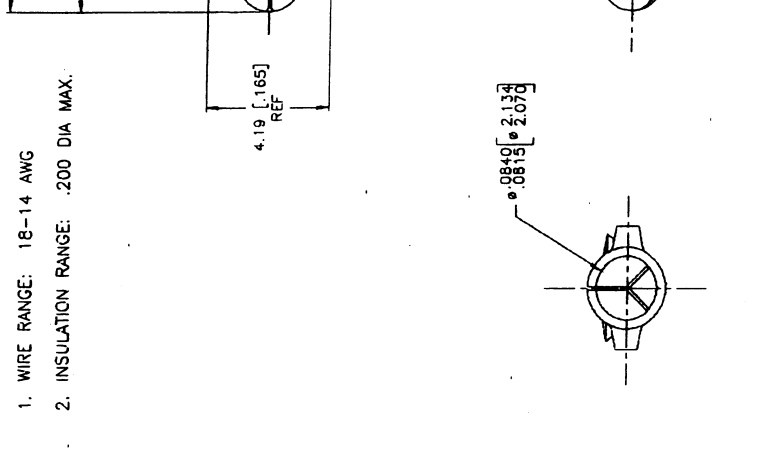
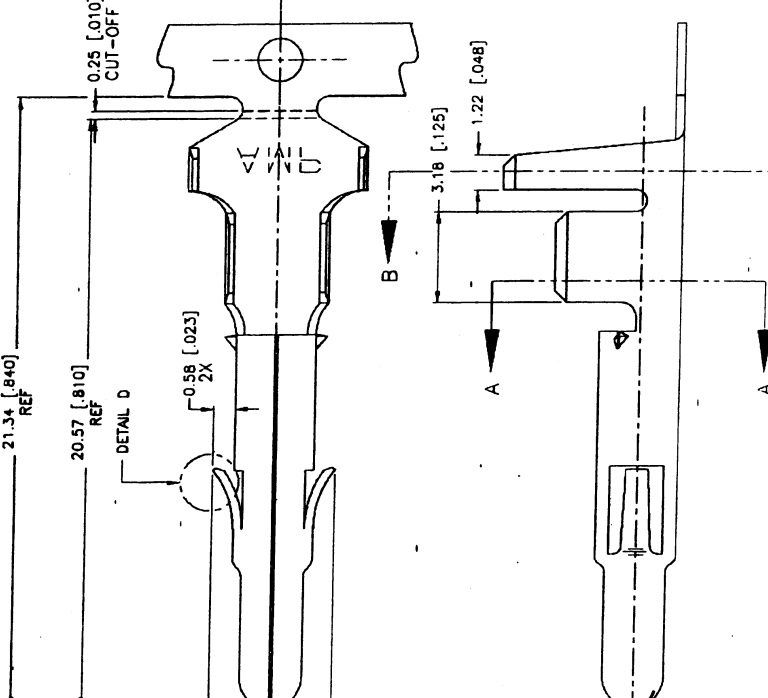
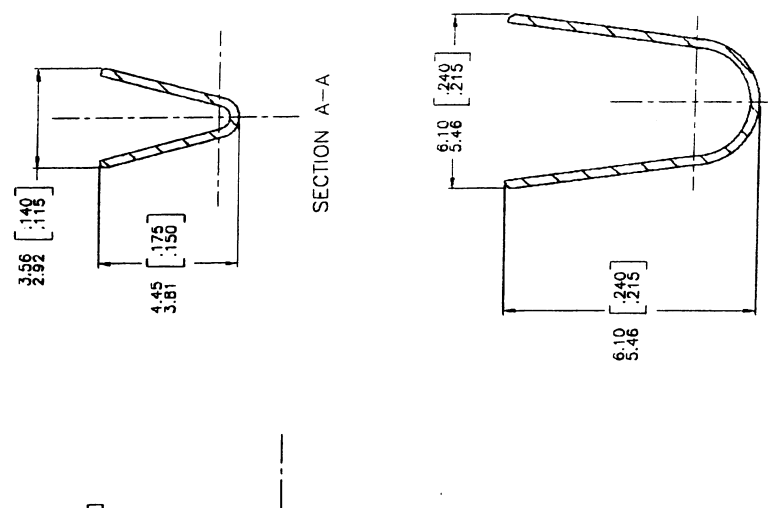
CONTRACT NO DR M-FENER 5-26-81		AMP INCORPORATED Harrisburg, Pa.	
CHK APPD DESIGN APPD OTHER APPD	CHK APPD DESIGN APPD OTHER APPD	NAME UNIVERSAL MATE-N-LOK	DRAWING NO 350570
WIRE RANGE 24-18 AWG		SIZE B	SCALE 4-1
INSULATION RANGE .100 DIR MAX		SHEET -H-	

FIG 268
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

AMP 1470-15 REV 2-81

CUSTOMER DRAWING

REVISEMENTS		DATE	BY	CHK
CM	00			
REVISIONS			1	SH
REVISED PER DC3B-0361-02			01-REP-02	SR



- 1. WIRE RANGE: 18-14 AWG
- 2. INSULATION RANGE: .200 DIA MAX.

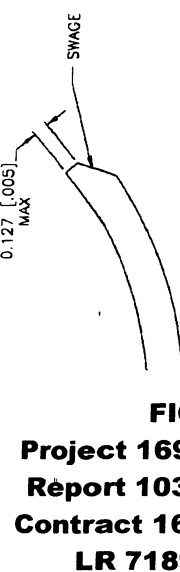


FIG 269
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

SECTION B-B

350918-3	PRE-TIN	.012	PH. BRZ.	350873-3
	PRE-TIN	.012	BRASS	350873-1
LOOSE PIECE REFERENCE	FINISH		MATERIAL	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

DESIGNED BY	DESIGNED	DATE
DRAWN BY	DRAWN	DATE
CHECKED BY	CHECKED	DATE
APPROVED BY	APPROVED	DATE

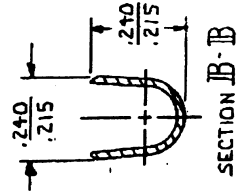
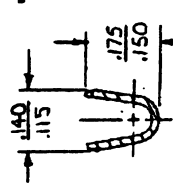
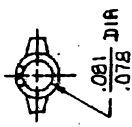
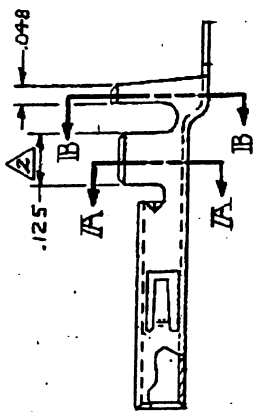
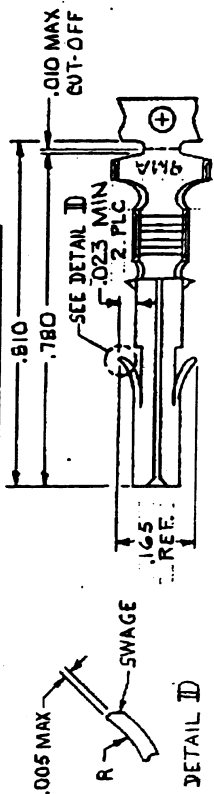
TITLE FOR USE TAMPING IN

Customer Drawing: A2 00779 C-350873

1 of 1

DRAWING MADE IN THIRD ANGLE PROJECTION

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ZONE	LTR	DESCRIPTION	DATE	APPROVED
	K	REDRAWN W/O CHANGE	M-6457	6-5-81 M5F
	L	ADDED .001 DIA. PT. OF MEAS. M-7367	5/3/83	TW / JH
	M	REVISED	AG 57	4/1/83
	N	NI RESTORATION	AG 57	4/23/85 SJ
	N	OBsolete 4.7 CM 475		4/81 XJ / RS
	P	OBsolete - 2 PER CM-1371		8-7-81 PF / RS
	R	REV PER EC 0730-3607-91		4-6-91 RV / RS
	S	REV PER EC 0130-0020-96		8-1-81 JH / RS

SECTION A-A

SECTION B-B

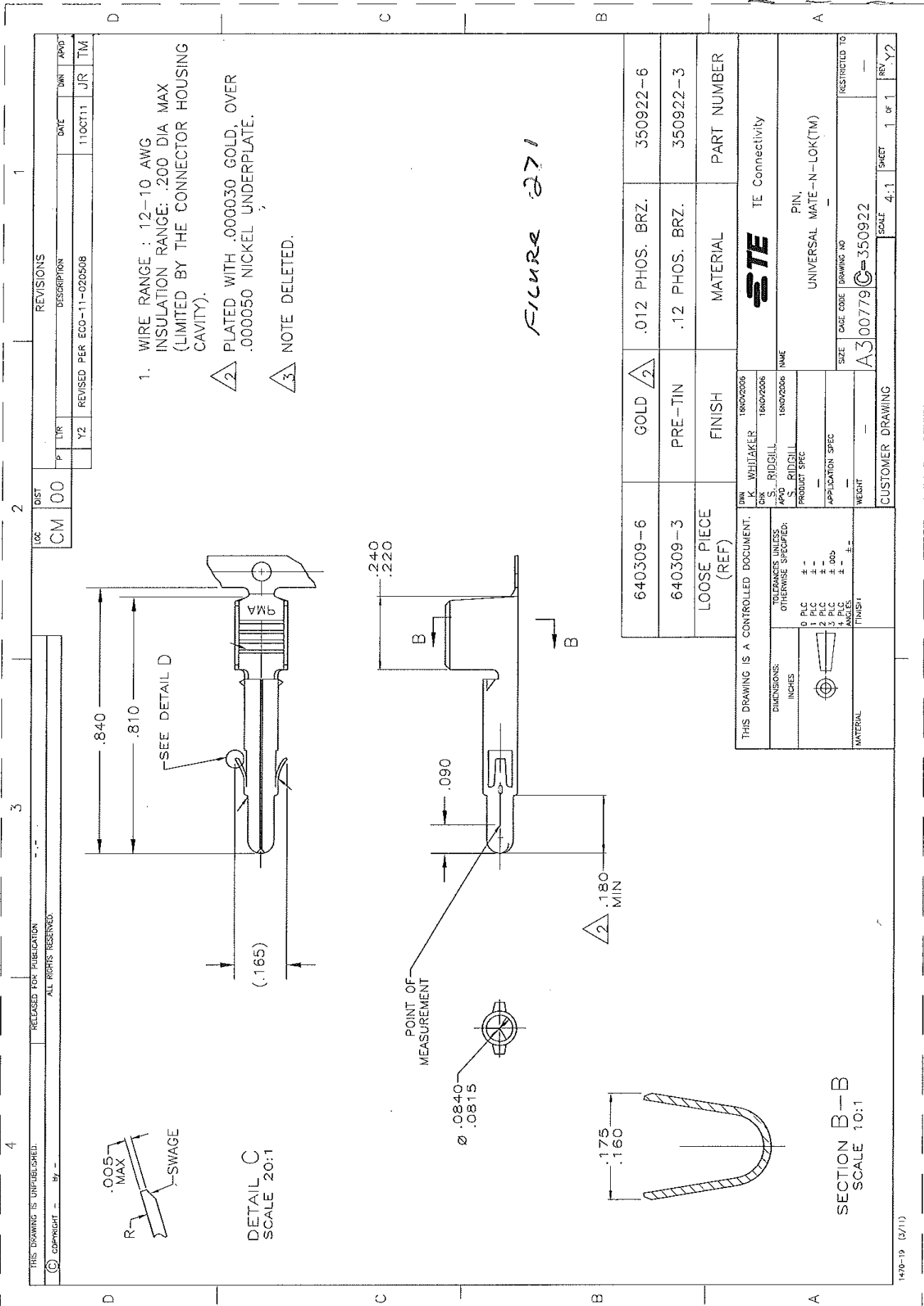
FIG 270
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ON ANGLES		CONTRACT NO	
WIRE RANGE		DRM. CHECK 4-22-87	
INSULATION RANGE		CHK BY: <i>S. H. H. 4/1/81</i>	
.200 DIR MAX		APP'D BY: <i>S. H. H. 4-12-87</i>	
		APPROVED	
		DESIGN APP'D	
		OTHER APP'D	
		NAME	
		SOCKET, UNIVERSAL MATE-N-LOK™	
		MATERIAL	
		012 PH. BRZ	
		BRASS	
		350874-3	
		350874-1	
		PART NO	
		AMP INCORPORATED	
		HARRISBURG, PA.	
		DRAWING NO	
		00779	
		DRAWING NO	
		350874	
		SCALE 4-1	
		SHEET	

CUSTOMER DRAWING

AMP 1470-15 REV 8-78

FIG 270
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549



REVOLUTIONS		DATE	
REV	DESCRIPTION	DATE	BY
1	REVISED PER ECO-11-020508	11OCT11	JR TM

1. WIRE RANGE : 12-10 AWG
INSULATION RANGE: .200 DIA MAX
(LIMITED BY THE CONNECTOR HOUSING
CAVITY).
2. PLATED WITH .000030 GOLD, OVER
.000050 NICKEL UNDERPLATE.
3. NOTE DELETED.

Figure 271

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWG NO	18NDV2006
640309-6	GOLD	APPROVED	18NDV2006
640309-3	PRE-TIN	APPROVED	18NDV2006
LOOSE PIECE (REF)		FINISH	PART NUMBER
			350922-6
			350922-3
			STE
			TE Connectivity
			PIN, UNIVERSAL MATE-N-LOK(TM)
			SIZE CASE CODE DRAWING NO A300779 350922
			RESTRICTED TO
			SCALE 4-1
			SHEET 1 of 1
			REV Y2

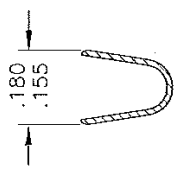
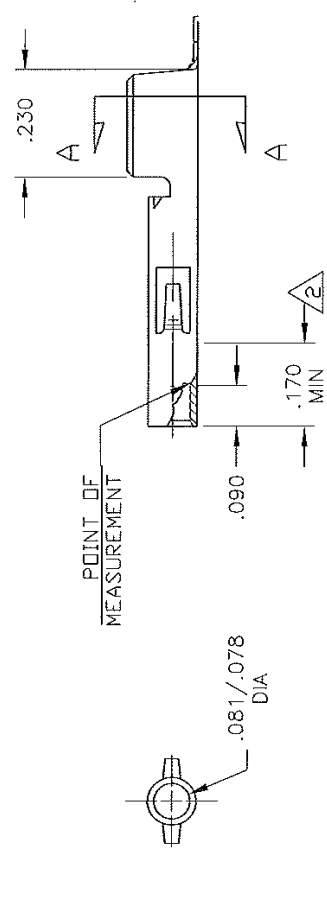
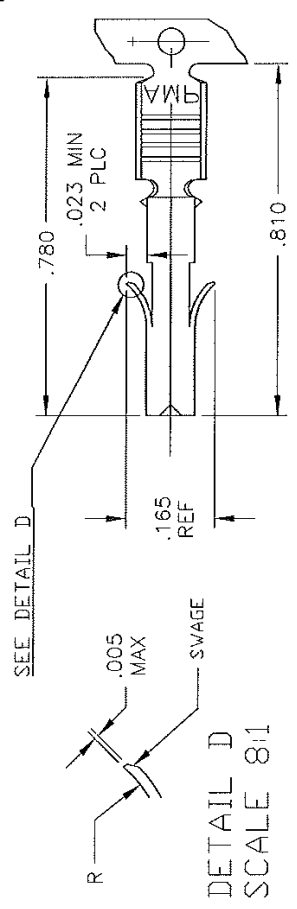
SECTION B-B
SCALE 10:1

1470-19 (3/11)

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REVOLUTIONS		DATE	DRW	APPD
P	LR		JR	TM
S2	REV PER ECO 11-020508	110CT11		

1. WIRE RANGE : 12-10 AWG INSULATION RANGE : .200 DIA MAX (LIMITED BY THE CONNECTOR HOUSING CAVITY).
2. .00030 THK GOLD, OVER .000050 NICKEL UNDERPLATE ON INSIDE OF RECEPTACLE. REMAINDER OF CONTACT IS NICKEL PLATED.
3. GOLD OVER NICKEL UNDERPLATE ON ENTIRE STAMPING. .000030 MIN GOLD AT POINT OF MEASUREMENT IN CONTACT AREA, GOLD FLASH MIN IN WIRE BARREL.



SECTION A-A
Figure 272

640310-6	GOLD 2	.012±.001 PHOS BRZ	350923-6
---	GOLD 3	.012±.001 PHOS BRZ	350923-4
640310-3	PRE-TIN	.012±.001 PHOS BRZ	350923-3
LOOSE PIECE P/N REF	FINISH	MATERIAL	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

OWN: 110CT11
 DATE: 110CT11
 BY: MICHELLETTI
 FOR: MICHELLETTI
 PRODUCT SPEC: 110CT11

STE TE Connectivity

SOCKET UNIVERSAL MATE-N-LOK

SIZE: CASE CODE: DRAWING NO: A3100779 ©=350923

RESTRICTED TO

WEIGHT: ---
 FINISH: ---
 MATERIAL: ---

TOLERANCES UNLESS OTHERWISE SPECIFIED:
 0 PLC ±
 1 PLC ±
 2 PLC ±.010
 3 PLC ±.010
 ANGLES: ±

CUSTOMER DRAWING SCALE 4:1 SHEET 1 of 1 REV S2

1 LOC CM DIST 53

2 REVISIONS

P	ZONE	LTR	DESCRIPTION	DATE	APPROVED
1		M	REVISED PER EC 0730: 0141-94	7-26-94	RV RS

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4 DRAWING MADE IN THIRD ANGLE PROJECTION

1. WIRE RANGE : 30-26 AWG.

2. INSULATION RANGE: .032 - .057 DIA.

A GOLD OVER NICKEL ON ENTIRE STAMPING; .000030 GOLD MINIMUM AT POINT OF MEASUREMENT IN CONTACT AREA, GOLD FLASH MINIMUM IN WIRE BARREL.

A	.012 THK. PH BRZ	350924-6
TIN	.012 THK BRASS	350924-1
FINISH	MATERIAL	PART NO.

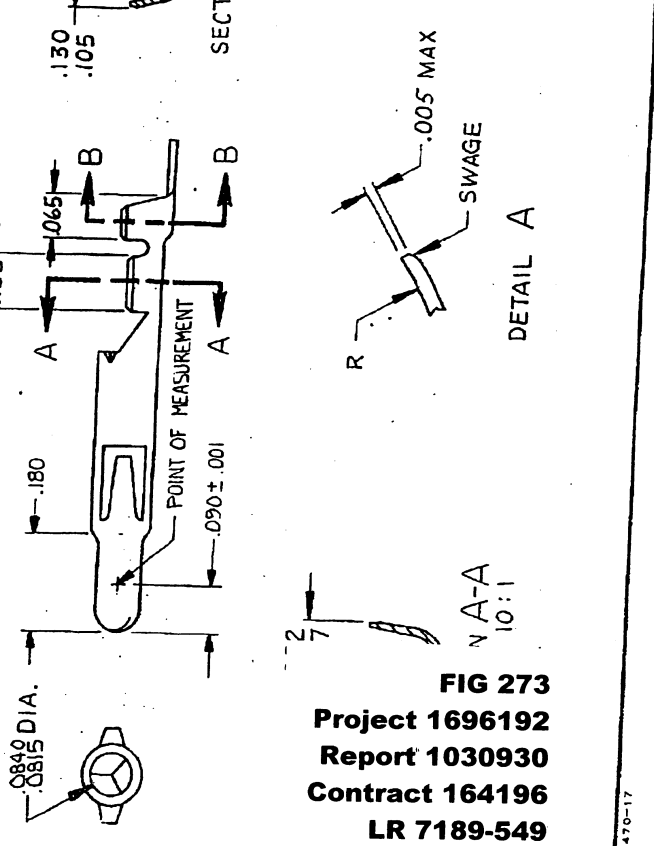


FIG 273
Project 1696192
Report 1030930
Contract 164196
LR 7189-549

CONTRACT NO. **AMP** | AMP INCORPORATED Harrisburg, Pa.

DATE **6/15/84** | NAME **PIN, UNIVERSAL MATE-N-LOK**

APP'D **[Signature]** | DATE **7-17-84**

DESIGN APP'D | DRAWING NO. **00779**

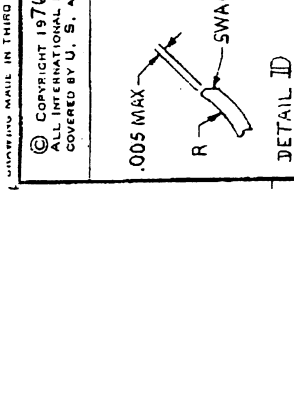
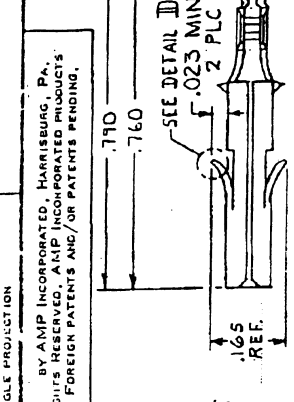
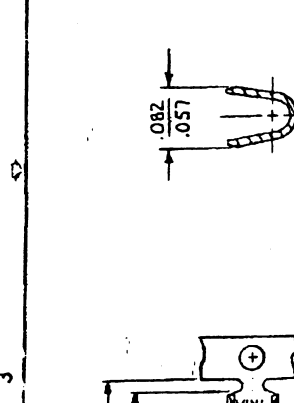
OTHER APP'D | SCALE **NTS**

FINISH **30-26AWG** | SHEET **350924**

SEE TABLE

LOC	CM	DIST
1	CM	DIST 53

ZONE	LTR	DESCRIPTION	DATE	APPROV'D
	E	REDRAWN W/O CHANGE	6-5-81	MTS/SLK
	F	REVISED	7/1/83	WDL/SLK
	G	ADDED ϕ PER TTI CM84-03	4-23-88	WDL/SLK
	H	RESTORATION	4-23-88	ST/RS
	I	OBSOLETE ϕ PER CM-2604	11-2-89	PAC/RS
	J	REVISED PER CM-2812	3-16-90	PAC/RS
	K	REACT. ϕ PER PR CM 31-144	12-17-91	DS/RS
	L	REV PER EC 0730-3607-91	1-6-94	RV/RS



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON ANGLES AS SHOWN.

WIRE RANGE 30-26 AWG

INSULATION RANGE .032-.057 DIA

CONTRACT NO. DR M. Ficker 4-21-81

CM 83/16/06 6/9/81

APP'D. Beckwith 6-10-81

DESIGN APP'D. OTHER APP'D.

AMP INCORPORATED HARRISBURG, PA.

NAME SOCKET, UNIVERSAL MATE-N-LOK

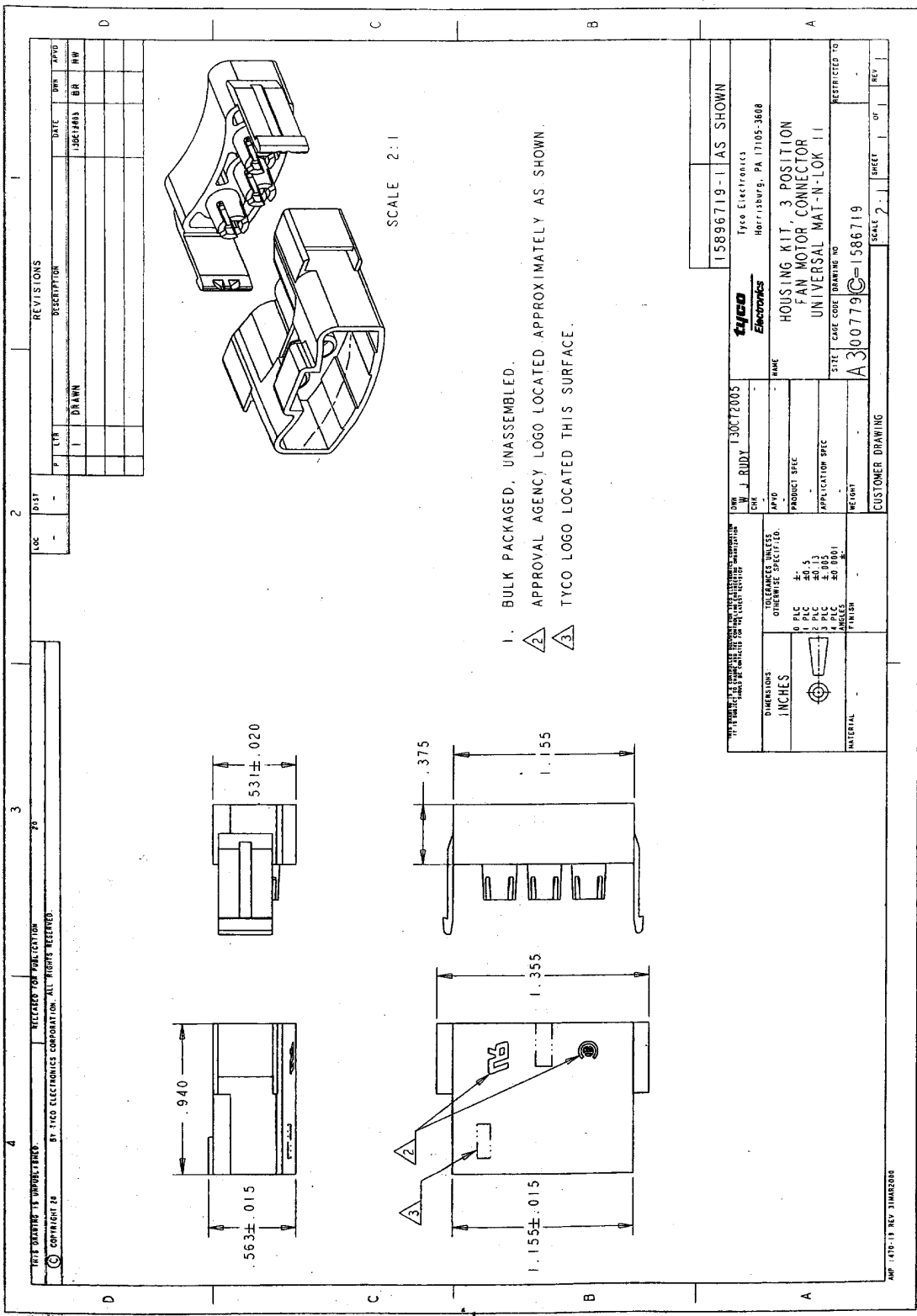
SIZE CODE IDENT NO B 00779

DRAWING NO 350925

SCALE 4-1 SHEET

PRE-TIN	FINISH	MATERIAL	PART NO
.012 PH BRZ	.012 BRASS		350925-1

FIG 274
Project 1696192
Report 1030930
Contract 164196
LR 7189-549



1. BULK PACKAGED, UNASSEMBLED.
2. APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
3. TYCO LOGO LOCATED THIS SURFACE.

REVOLUTIONS		DATE	BY	APP'D
1	DRAWN	10/21/84	BR	HW

LOC	QTY	DESCRIPTION

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15896719-1 AS SHOWN	
Tyco Electronics Harrisburg, PA 17105-3608	
130CT2005	tyco Electronics
J. RUDY	NAME
	PRODUCT SPEC
	APPLICATION SPEC
	WEIGHT
	CAGE CODE DRAWING NO
	RESTRICTED TO
	A300779 © 1586719
	CUSTOMER DRAWING
	SCALE 2:1
	SHEET 1 OF 1
	REV

DIMENSIONS IN INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED
Ø	± .005
1	± .005
2	± .005
3	± .005
4	± .005
5	± .005
6	± .005
7	± .005
8	± .005
9	± .005
10	± .005
11	± .005
12	± .005
13	± .005
14	± .005
15	± .005
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98	± .005
99	± .005
100	± .005

AMP 1475-13 REV 31MAR2005

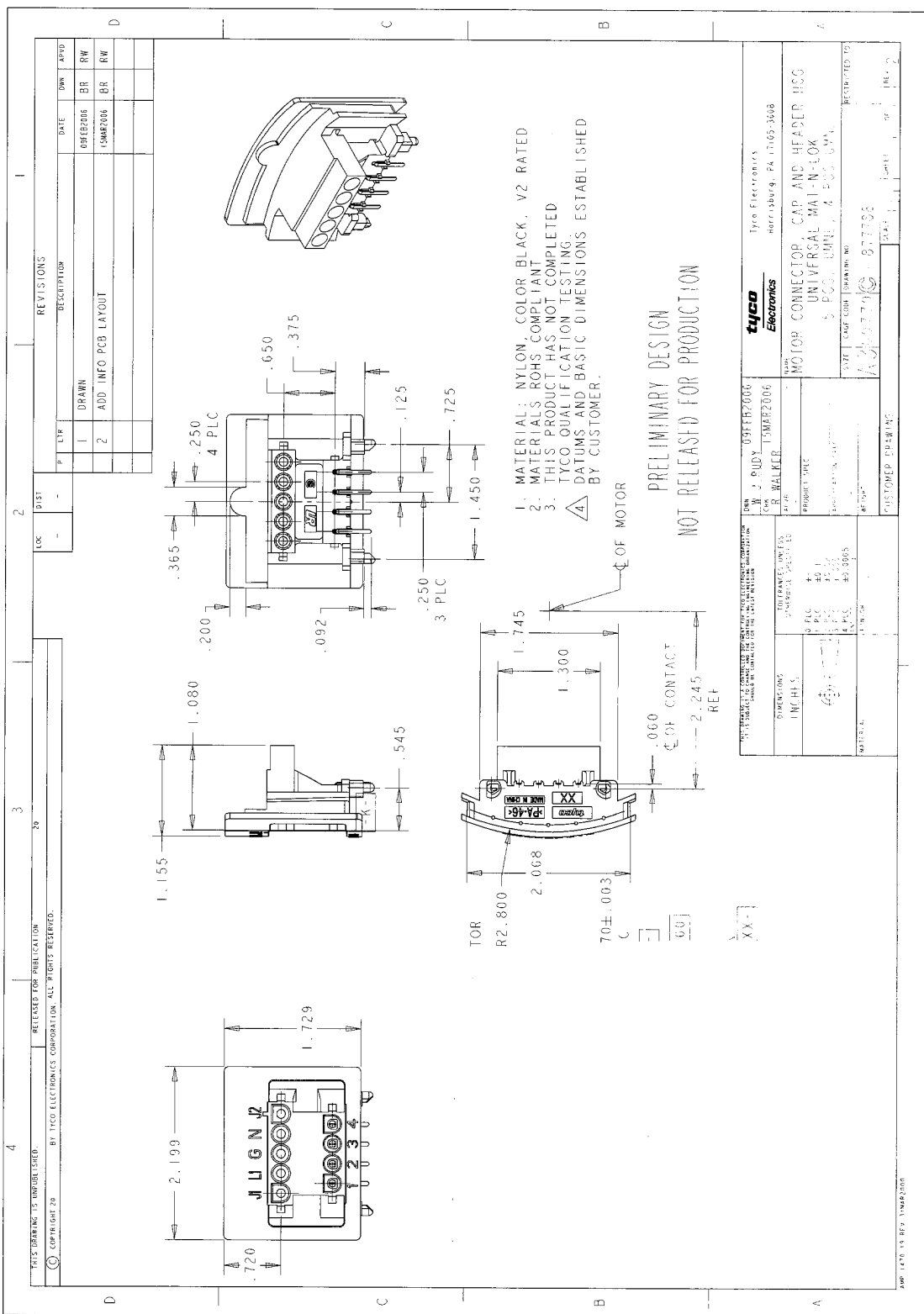
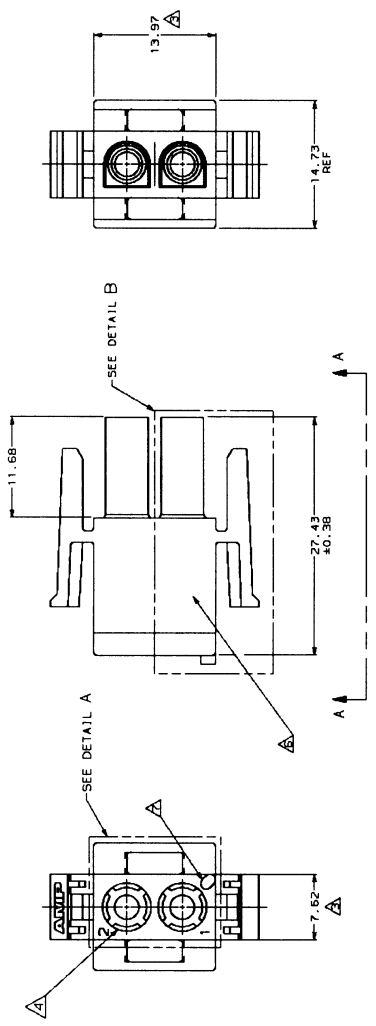
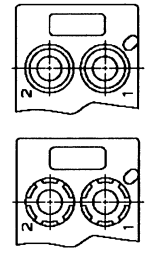


FIG 276
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOCK™ CAP OR HEADER.
 2. SMALL NICKS ARE PERMITTED ON THE CIRCUIT TONERS WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 1.0 NEWTONS (0.10 LBS.). NO INDIVIDUAL NICKS SHALL INCREASE THIS FORCE BY OVER 2.2 NEWTONS (1.5 LBS.).
- △ DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
- △ FOUR RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION, OPTIONAL.
- △ NOT MANUFACTURED IN U.S.
- △ UNWRITERS RECOGNIZED COMPONENT LOGO MUST BE LOCATED ON ANY SIDE OF HOUSING.
- △ POSITION OF LOGO/FMS FEATURE MAY BE ROUND OR BELONG AS DEPICTED.

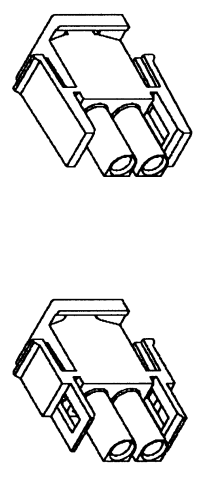


VIEW A-A
350777-4 ONLY



DETAIL A
OPTIONAL CONSTRUCTION

DETAIL B
350777-4 ONLY



CONVERSION TABLE	
27.43	1.080
14.73	.580
13.97	.550
11.68	.460
7.62	.300
0.38	.015
0.13	.005



AMP Incorporated
13250
13250

UNIVERSAL MATE-N-LOCK™
2 CIRCUIT

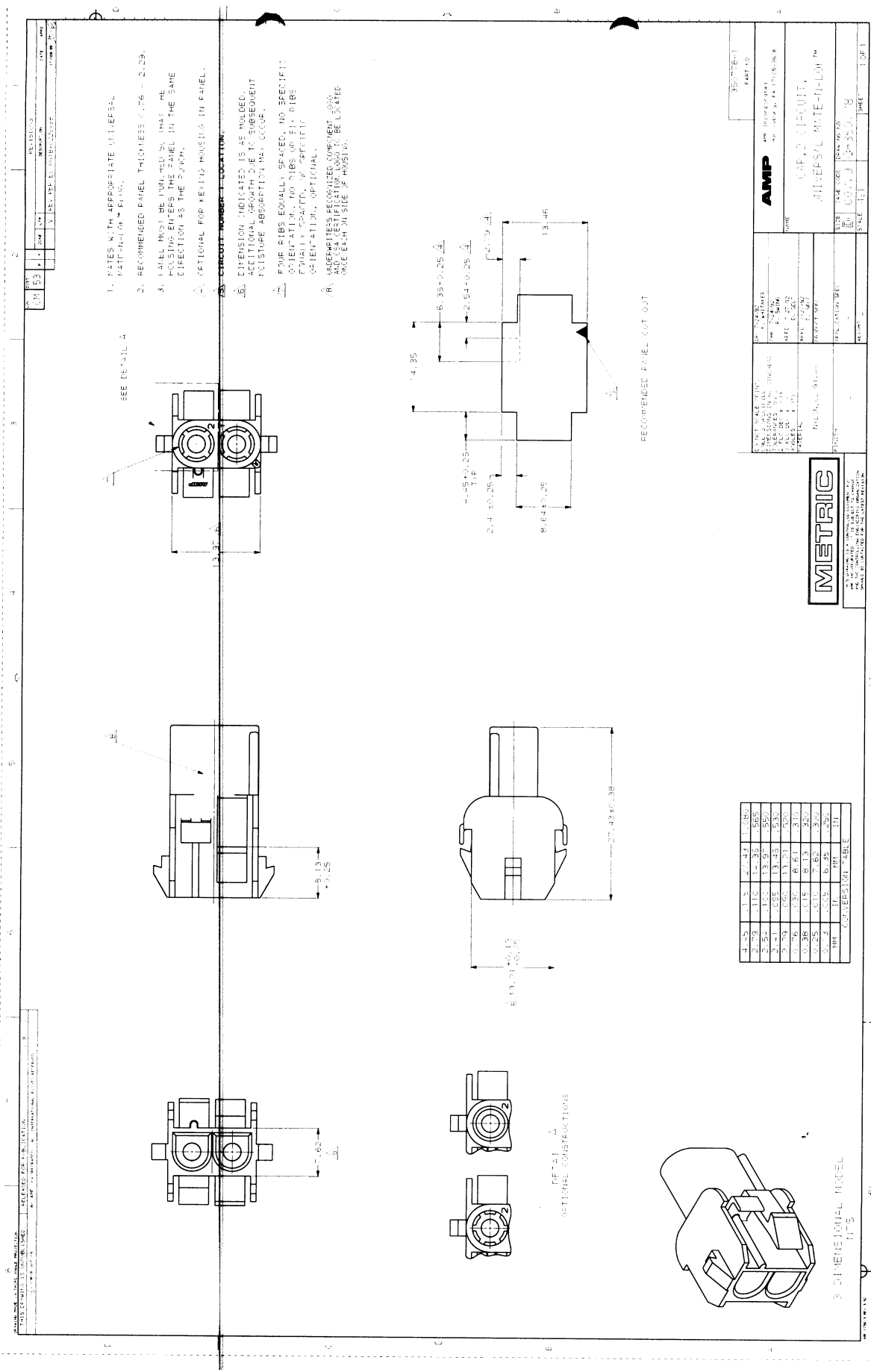
350777-4
350777-1

PART NUMBER

100779 C-350777

DATE: 05-11-88

DESIGNER: J. B. DRAHME



AMP METRIC UNIVERSAL MATERIALS, INC.
 1000 W. 10TH ST.
 MILWAUKEE, WIS. 53219-1898
 TEL: 414/385-1000
 FAX: 414/385-1001

METRIC

350776-1 PART NO.
 DATE: 03/92

AMP METRIC UNIVERSAL MATERIALS, INC.
 1000 W. 10TH ST.
 MILWAUKEE, WIS. 53219-1898
 TEL: 414/385-1000
 FAX: 414/385-1001

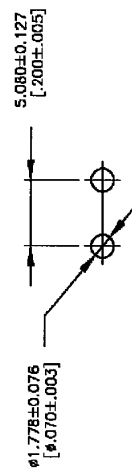
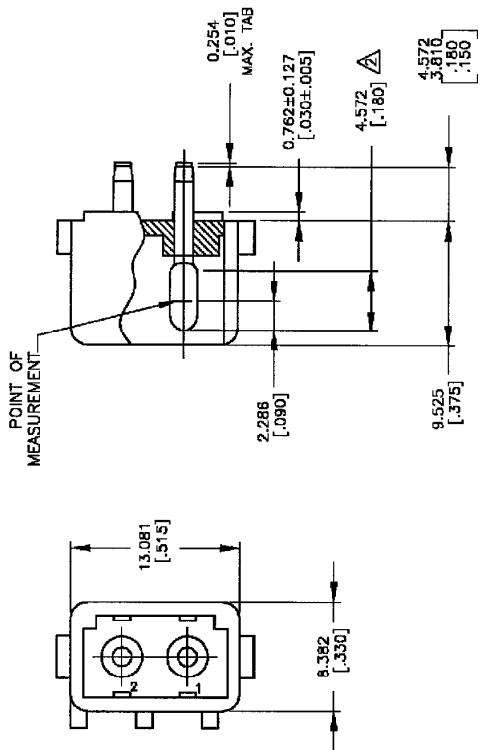
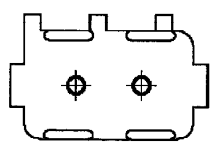
CUSTOMER: UN-14-113

4 3 2 1

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LOC	DIST	REVISONS
CM 00	00	DESCRIPTION
		RELEASED PER 063B-1134-04
P	UN	DATE
0		0802005
		HMR
		DC

- PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.
- CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



METRIC

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DESIGNER	DATE	BY	CHKD
D. COOLEY	08022005	D. COOLEY	D. COOLEY
APPRO	08022005	NAME	2 CIRCUIT COMMERCIAL MATE-N-LOK (TM) HEADER
PRODUCT SPEC		APPLICATION SPEC	
WEIGHT		CUSTOMER DRAWING	

ASSEMBLY NO.	1586512-2	NYLON-NAT.	COPPER ALLOY-GOLD A
		HSG, MATL& COLOR	PIN MATL & FINISH
		Tyco Electronics Corporation	
		Harrisburg, PA 17105-3808	
SIZE	A3	CASE CODE	DRAWING NO
	00779		1586512
		RESTRICTED TO	
		SCALE	3:1
		SHEET	1 of 1
		REV	0

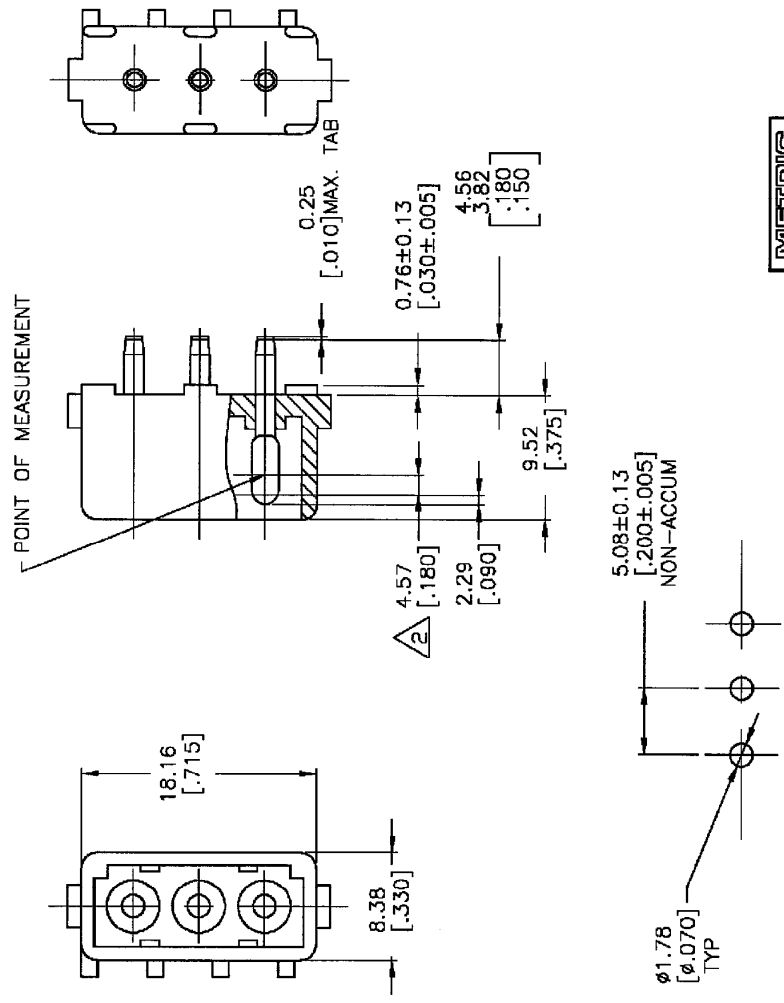
AMP 147D-18 REV 31MAR2000

4 3 2 1

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DATE	BY	DATE	BY
080205	APB	080205	APB
RELEASED PER 063B-1134-04		DESCRIPTION	
O		0	
CM		00	
LDC		00	
LIT		0	

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.

CONTACT IS PLATED OVERALL WITH .00050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTIE TIN ON SOLDER TAIL END.



METRIC

THIS DRAWING IS A CONTROLLED DOCUMENT.		1586514-2		NYLON-NATURAL		COPPER ALLOY-GOLD	
DRAWN BY: CARLIN		06007205		HSG, MATL & COLOR		PIN MATL & FINISH	
CHECKED BY: D. COOLEY		06007205		Type Electronics Corporation		Harrisburg, PA 17105-3608	
APPROVED BY: D. COOLEY		06007205		NAME		3 CIRCUIT COMMERCIAL MATE-N-LOK(TM) HEADER	
PRODUCT SPEC		APPLICATION SPEC		SIZE		CAGE CODE	
FINISH		WEIGHT		DRAWING NO		RESTRICTED TO	
SEE TABLE		SEE TABLE		A3		00779	
SEE TABLE		SEE TABLE		C=1586514		SCALE	
SEE TABLE		SEE TABLE		CUSTOMER DRAWING		3:1	
SEE TABLE		SEE TABLE		SHEET		1 of 1	
SEE TABLE		SEE TABLE		REF		O	

AMP 1470-19 REV 31MAR2020

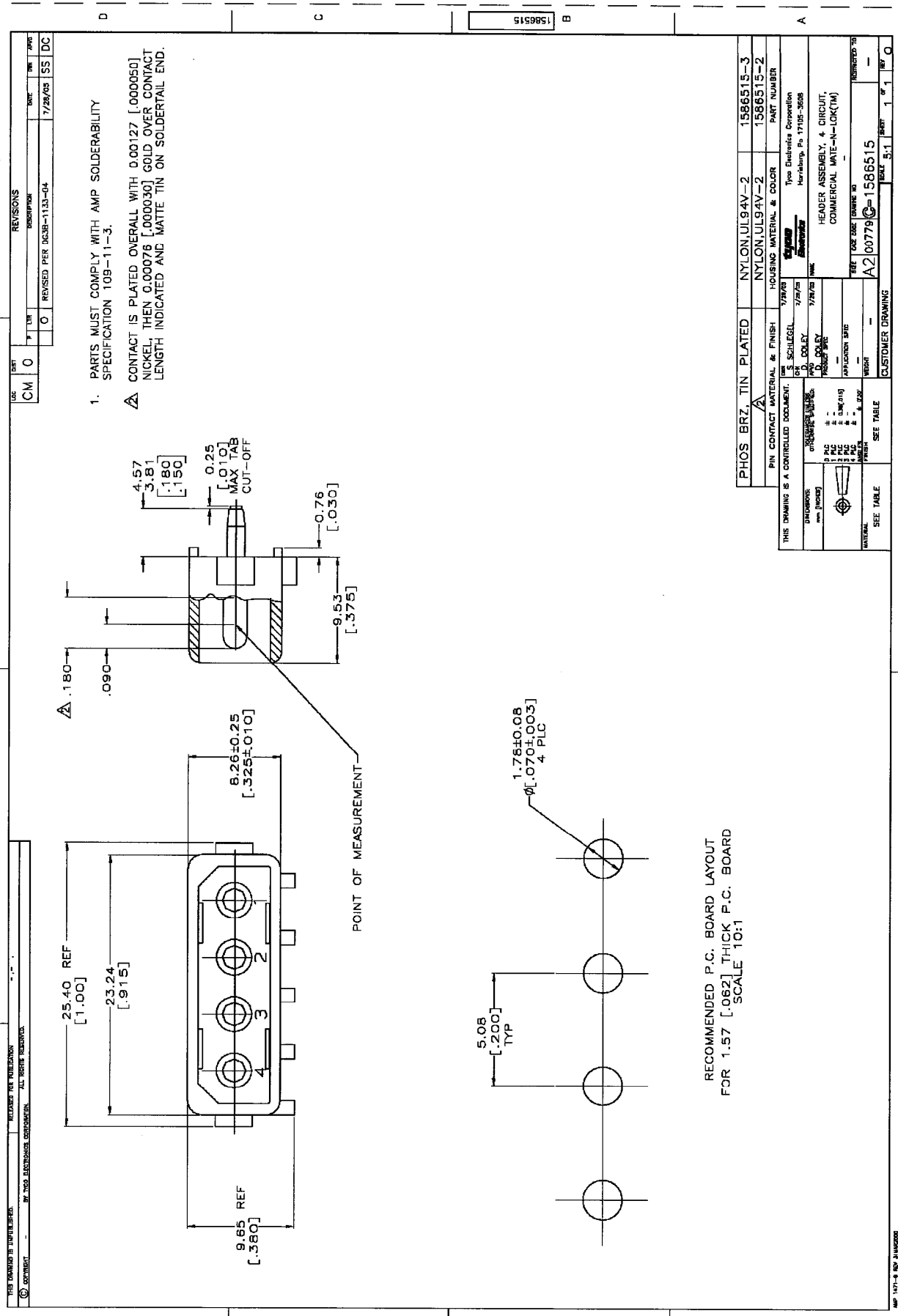
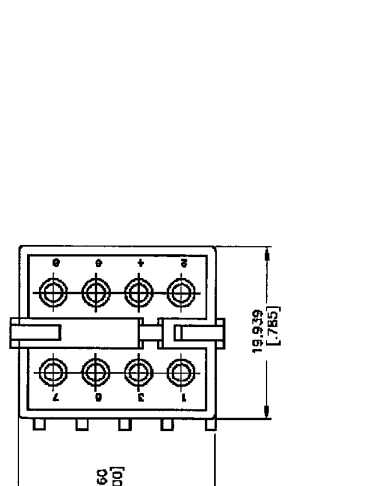


FIG 281
 Project 70070692
 Report 1030930
 Contract 164196
 LR 7189-549

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LOG	CM	00	0187
F	LTR	0	0
REVISED PER		063B-1134-04	100CT05
DATE		100CT05	HMR DC

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.
 CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



RECOMMENDED LAYOUT FOR 1.575[.062] THICK P.C. BOARD

THIS DRAWING IS A CONTROLLED DOCUMENT.

REVISIONS (UNLESS OTHERWISE SPECIFIED):	0	PLC	4
	1	PLC	4
	2	PLC	4
	3	PLC	4
	4	PLC	4
ANGLES	4	PLC	4
FINISH	4	PLC	4

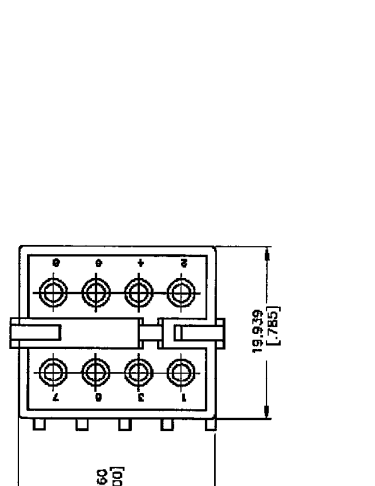
METRIC

AMP 1470-18 REV 31MAR2000

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LOG	CM	00	0187
F	LTR	0	0
REVISED PER		063B-1134-04	100CT05
DATE		100CT05	HMR DC

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.
 CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



RECOMMENDED LAYOUT FOR 1.575[.062] THICK P.C. BOARD

THIS DRAWING IS A CONTROLLED DOCUMENT.

REVISIONS (UNLESS OTHERWISE SPECIFIED):	0	PLC	4
	1	PLC	4
	2	PLC	4
	3	PLC	4
	4	PLC	4
ANGLES	4	PLC	4
FINISH	4	PLC	4

METRIC

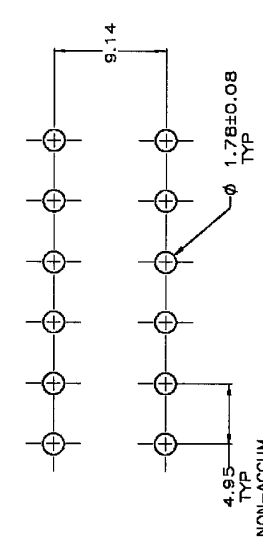
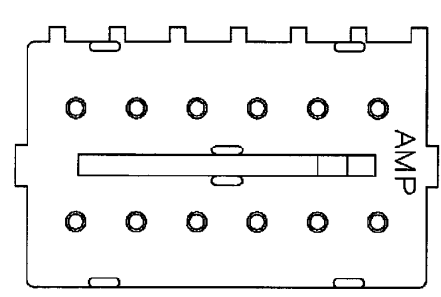
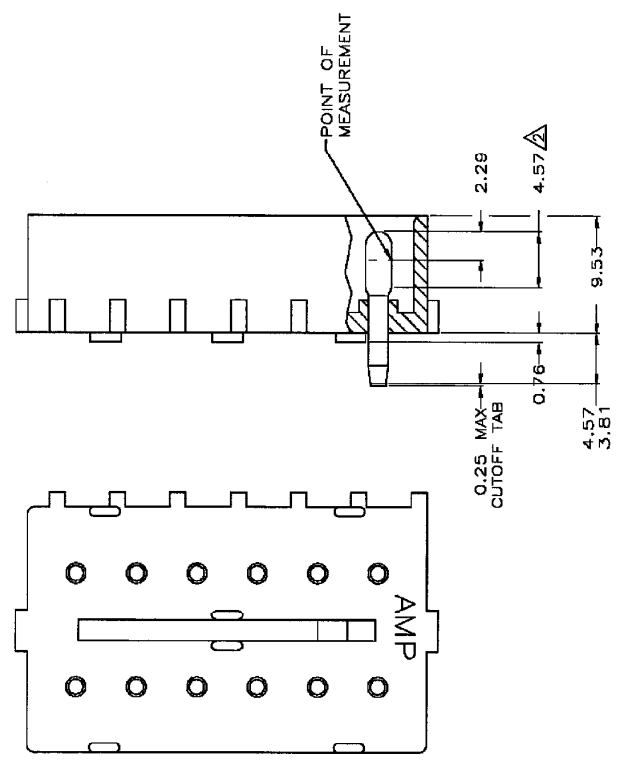
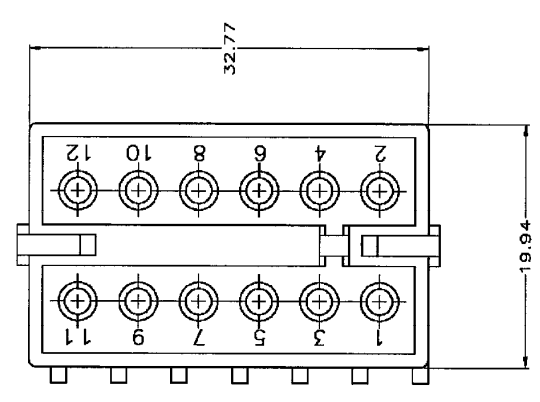
AMP 1470-18 REV 31MAR2000

1586518-2	NYLON-NATURAL COPPER ALLOY-GOLD
ASSEMBLY NO.	HSG, MATL & COLOR PIN MATL & FINISH
100072005	180072005
180072005	180072005
NAME	8 CIRCUIT COMMERCIAL MATE-N-LOCK (TM) HEADER
TYPE	TYCO ELECTRONICS CORPORATION
DATE	HARRISBURG, PA 17105-3608
SIZE	A3
CAGE CODE	1586518
DRAWING NO	1586518
RESTRICTED TO	RESTRICTED TO
SHEET	1 OF 1
SCALE	3:1

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REV	DATE	DESCRIPTION	BY	CHK
CM	0	REVISED PER DC3B-1133-05	7/28/03	SS DC

1. PARTS COMPLY WITH AMP SOLDERABILITY SPEC 109-11-2.
 CONTACT IS PLATED OVERALL WITH 0.00127 NICKEL THEN 0.00076 GOLD OVER LENGTH INDICATED AND MAITE TIN ON SOLDER TAIL END.



RECOMMENDED MOUNTING HOLE PATTERN FOR .062 THICK P.C. BOARD

CU ALLOY	FINISH	NATURAL	1586520-2
MATERIAL	NYLON, UL94V-0	HOUSING	COLOR
PIN	1/78/75	1/78/75	PART NO
THIS DRAWING IS A CONTROLLED DOCUMENT.			
DRUMMER	BY	DATE	1586520
1	2	3	4
5	6	7	8
9	10	11	12
MATERIAL			
SEE TABLE			
CUSTOMER DRAWING			

AMP 1011-B REV 3/10/03

4 3 2 1

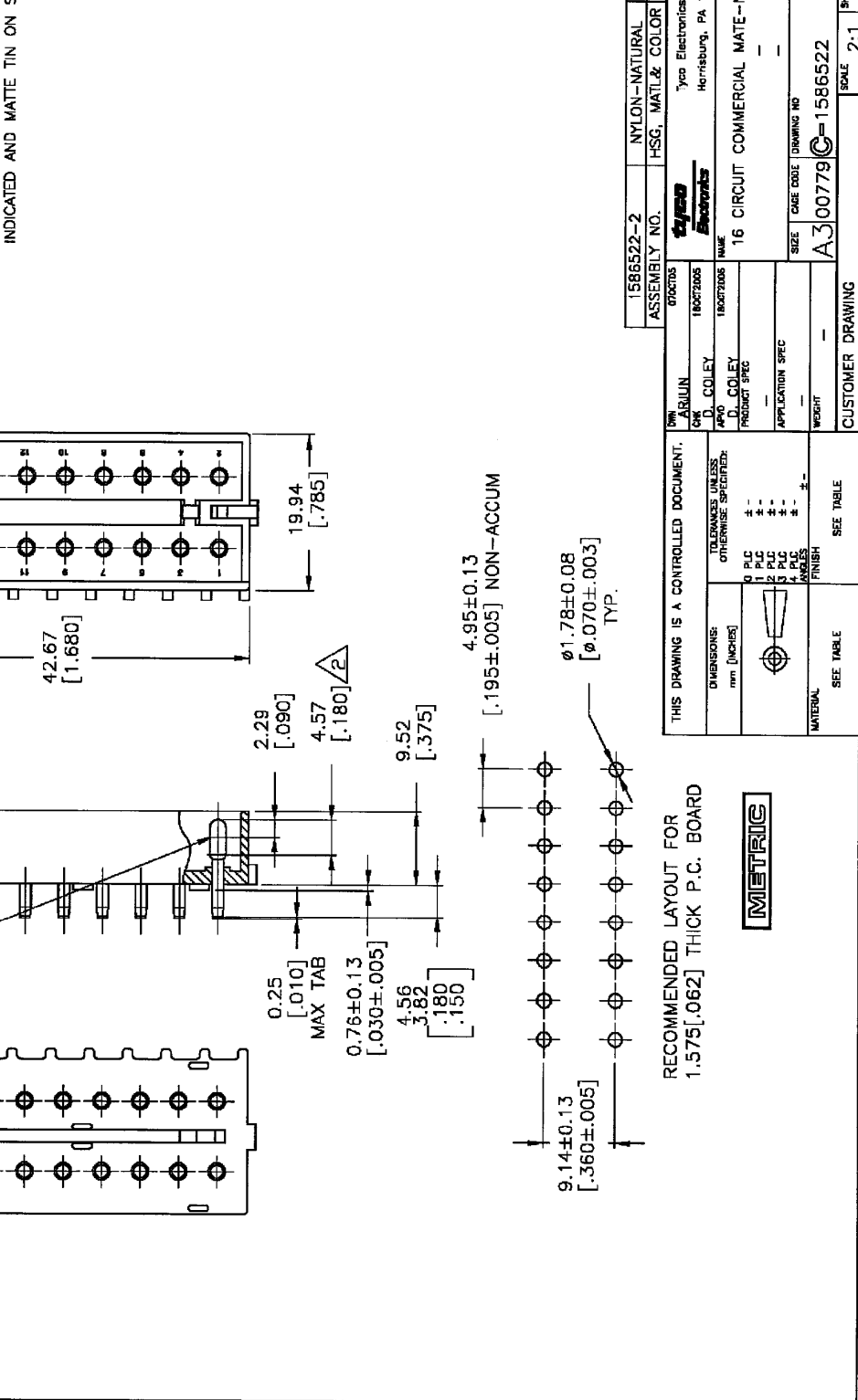
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REV	DATE	BY	CHK
0	070072005	APB	DC

LOC	DIST	REV
CM	0	0

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.

CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



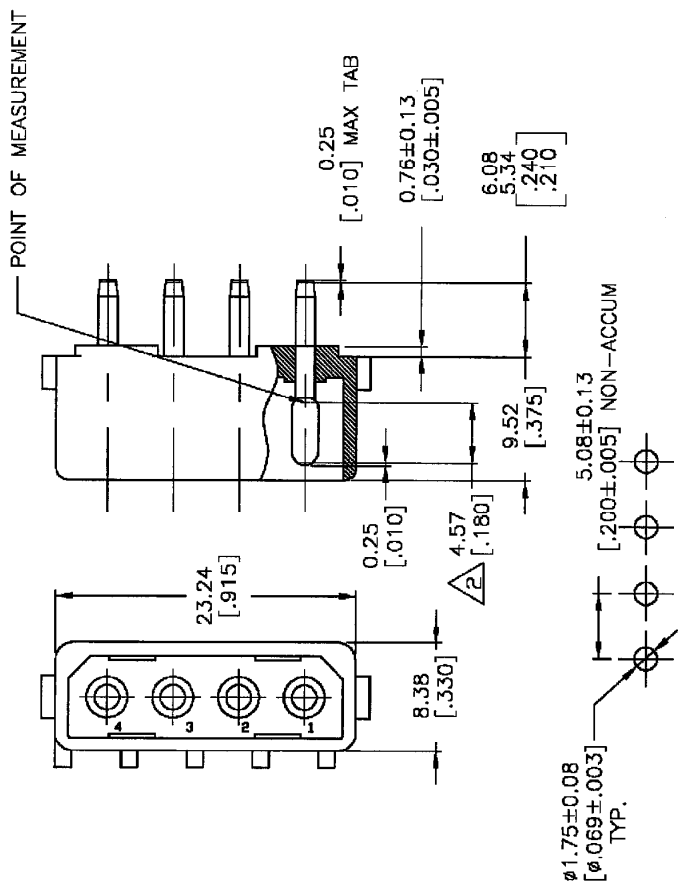
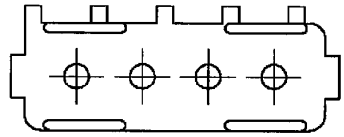
1586522-2	NYLON-NATURAL	COPPER ALLOY-GOLD
ASSEMBLY NO.	HSG. MATL & COLOR	PIN MATL & FINISH
YCO	Yco Electronics Corporation	Harrisburg, PA. 17105-3808
16	CIRCUIT COMMERCIAL MATE-N-LOK(TM)	HEADER
A3	00779	1586522
SCALE	2:1	SHEET 1 of 1

4 3 2 1

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REVOLUTIONS		DATE	BY	APP'D
R	UTR	100672003	APB	—
0	0	RELEASED PER 063B-1134-04		

POINT OF MEASUREMENT



- PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.
- CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.

METRIC

THIS DRAWING IS A CONTROLLED DOCUMENT.		TYCO ELECTRONICS CORPORATION	
DATE	BY	ASSEMBLY NO.	1586525-2
REV	0	NYLON-NATURAL	COPPER ALLOY-GOLD
DIMENSIONS: mm (INCHES)		HSG, MATL & COLOR PIN MATL & FINISH	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		TYCO Electronics Corporation Harrisburg, PA 17105-3608	
0 P.C.	±	NAME	
1 P.C.	±	4 CIRCUIT COMMERCIAL MATE-N-LOK(TM) HEADER	
2 P.C.	±	SIZE	A3
3 P.C.	±	CASE CODE	00779
4 P.C.	±	DRAWING NO	C-1586525
ANGLES	±	RESTRICTED TO	—
FINISH	±	WEIGHT	—
MATERIAL SEE TABLE		CUSTOMER DRAWING	
SEE TABLE		SCALE	3:1
		SHEET	1 of 1
		REV	0

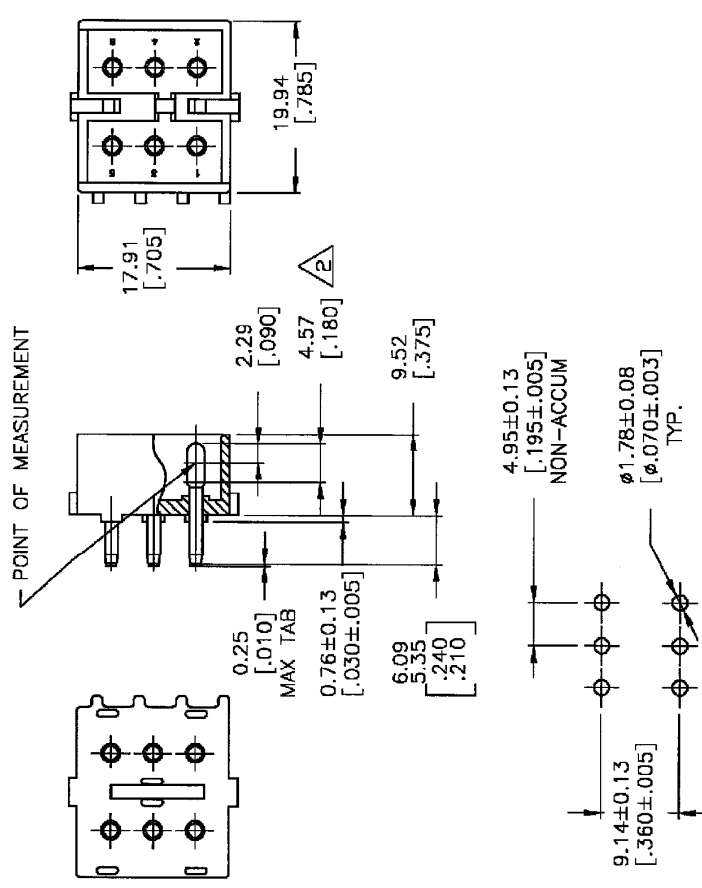
AMP 1470-18 REV 31MAR2000

4 3 2 1

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© COPYRIGHT BY TYCO ELECTRONICS CORPORATION.		ALL RIGHTS RESERVED.		DESCRIPTION	
		LOC CM		DATE	
		DIST 0		100C72005/APB	
		F LTR 0		OWN	
				APVD	
				RELEASED PER 063B-1134-04	

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.

△ CONTACT IS PLATED OVERALL WITH .000050 NICKEL THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



RECOMMENDED LAYOUT FOR 3.175[.125] THICK P.C. BOARD



THIS DRAWING IS A CONTROLLED DOCUMENT.	
DIMENSIONS: mm (inches) 	TOLERANCES UNLESS OTHERWISE SPECIFIED: 1. PL ± 2. PL ± 3. PL ± 4. PL ± FINISH ±
MATERIAL SEE TABLE	SEE TABLE

1586526-2	NYLON-NATURAL	COPPER ALLOY-GOLD
ASSEMBLY NO.	HSG, MATL & COLOR	PIN MATL & FINISH
070208	Typo Electronics Corporation	Harrisburg, PA 17105-3809
NAME	6 CIRCUIT COMMERCIAL MATE-N-LOK(TM) HEADER	
SIZE	CAGE CODE	DRAWING NO
A3	00779	1586526
CUSTOMER DRAWING		
SCALE 2:1		SHEET 1 of 1

AMP 1470-18 REV 31MAR2000

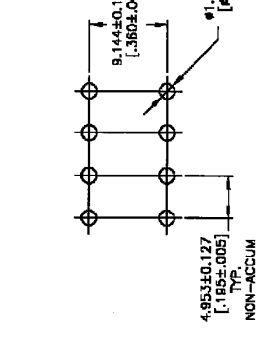
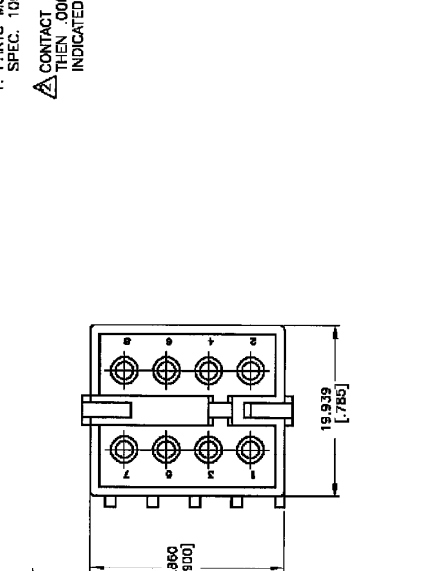
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LOC	REV	DATE	BY	APP'D
CM	00	100CT05	HMR	-

REV	DESCRIPTION
0	RELEASED PER 063E-1134-04

1	1
---	---

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.
 CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



RECOMMENDED LAYOUT FOR 3.175[.125] THICK P.C. BOARD

1586528-2	NYLON-NATURAL	COPPER ALLOY-GOLD
ASSEMBLY NO.	HSG, MATL & COLOR	PIN MATL & FINISH
10027003	TYCO Electronics Corporation	Harrisburg, PA 17105-3808
NAME	8 CIRCUIT COMMERCIAL MATE-N-LOK (TM) HEADER	
SIZE	DATE CODE	DRAWING NO
A3	00779	1586528
CUSTOMER DRAWING		
SCALE	SHEET 1 of 1	
2:1	RD Q	

AMP 1470-19 REV 31MAR2000

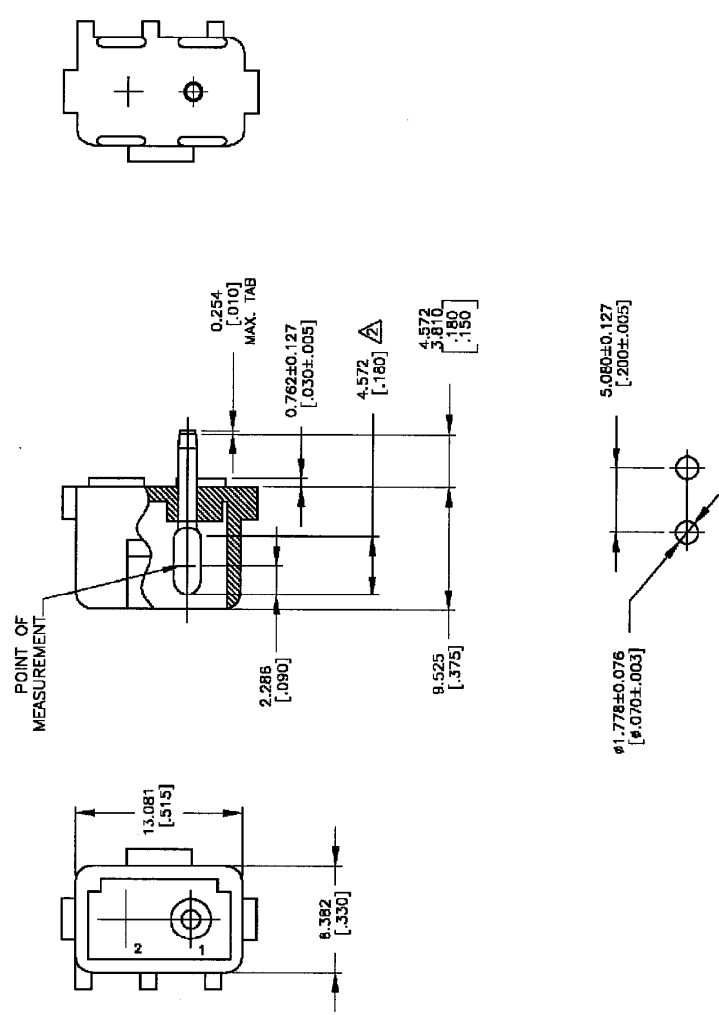
METRIC

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LOG	CM 00	REV	0	DATE	100CT05	DRN	HMR	APVD	-
DESCRIPTION		RELEASED PER 063E-1134-04							

1586530-2	NYLON-NAT.	COPPER ALLOY-GOLD
ASSEMBLY NO.	HSG, MATL & COLOR	PIN MATL & FINISH
10067268	Yco Electronics Corporation	Harrisburg, PA 17105-3608
NAME	2 CIRCUIT COMMERCIAL MATE-N-LOK (TM) HEADER	
PRODUCT SPEC	RESTRICTED TO	
APPLICATION SPEC	A3,00779	
WEIGHT	SCALE 3:1	
CUSTOMER DRAWING	SHEET 1 of 1	

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 108-11-3.
 CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



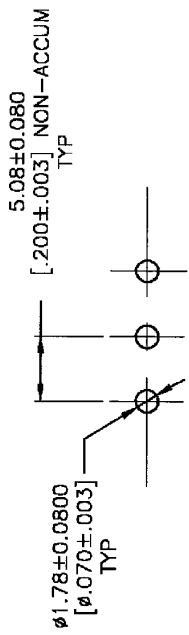
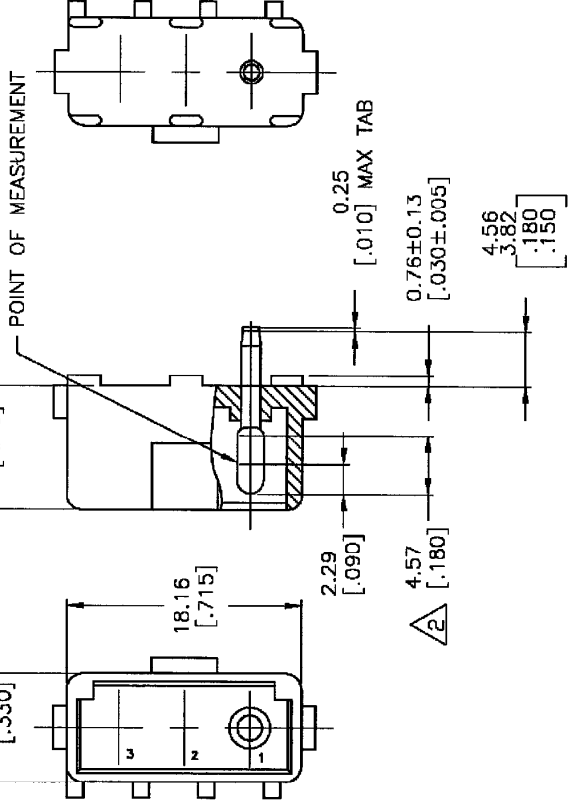
THIS DRAWING IS A CONTROLLED DOCUMENT.

DRN	RAAGHU	CHK	APVD	PRODUCT SPEC	APPLICATION SPEC	WEIGHT	CUSTOMER DRAWING
1586530-2	NYLON-NAT.	COPPER ALLOY-GOLD	10067268	Yco Electronics Corporation	Harrisburg, PA 17105-3608	A3,00779	SCALE 3:1
ASSEMBLY NO.		HSG, MATL & COLOR		PIN MATL & FINISH		RESTRICTED TO	
NAME		2 CIRCUIT COMMERCIAL MATE-N-LOK (TM) HEADER		RESTRICTED TO		A3,00779	
PRODUCT SPEC		RESTRICTED TO		A3,00779		SCALE 3:1	
APPLICATION SPEC		RESTRICTED TO		A3,00779		SHEET 1 of 1	
WEIGHT		SCALE 3:1		SHEET 1 of 1		REV Q	

METRIC

AMP 1470-19 REV 31MAR2000

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LOC		DIST		REVISONS	
CM		O		DESCRIPTION	
				RELEASED PER 003B-1134-04	
				DATE	
				100CT2005/AP/B	
				DWN	
				RP/D	



RECOMMENDED LAYOUT FOR
1.575[.062] THICK P.C. BOARD

- PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.
- CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTIE TIN ON SOLDER TAIL END.



THIS DRAWING IS A CONTROLLED DOCUMENT.		
DIMENSIONS: mm [INCHES]		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		
0 P.L.C.	±	
1 P.L.C.	±	
2 P.L.C.	±	
3 P.L.C.	±	
4 P.L.C.	±	
ANGLES	±	
FINISH SEE TABLE		
MATERIAL SEE TABLE		
WEIGHT SEE TABLE		
APPLICATION SPEC		
PRODUCT SPEC		
APPRO		
DATE		
BY: ARLUN		
100CT05		
5-1586532-2 NYLON-GREEN COPPER ALLOY-GOLD A		
1586532-2 NYLON-NATURAL COPPER ALLOY-GOLD A		
ASSEMBLY NO. HSG, MATL & COLOR PIN MATL & FINISH		
Tyco Electronics Corporation Harrisburg, PA 17105-3808		
NAME		
3 CIRCUIT COMMERCIAL MATE-N-LD(TM) HEADER		
SIZE CASE CODE DRAWING NO		
A3 00779 C=1586532		
RESTRICTED TO		
SCALE 3:1		
SHEET 1 of 1		
REV O		

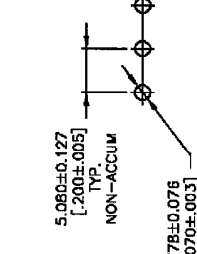
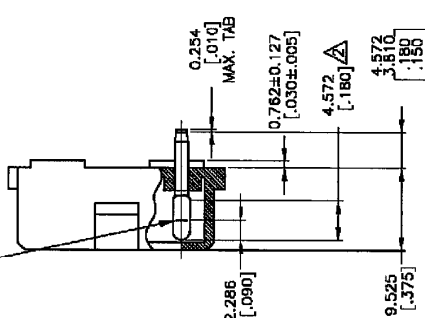
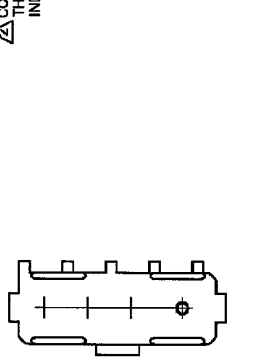
AMP 1470-18 REV 31MAR2000

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LOC	DIST	REV	DATE	DRN	APP'D
CM 00	00	0	110CT05	HMR	DC
RELEASED PER 003B-1134-04					

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 108-11-3.

△ CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



REV	DESCRIPTION	DATE	DRN	APP'D
1	RELEASED PER 003B-1134-04	110CT05	HMR	DC

5-1586534-2	NYLON-GREEN	COPPER ALLOY-GOLD
1586534-2	NYLON-NATURAL	COPPER ALLOY-GOLD
ASSEMBLY NO.	HSG, MATL & COLOR	PIN MATL & FINISH
110CT003	Typo Electronics Corporation	
180CT005	Harrisburg, PA 17105-3808	
DRN	BRAGHU	
CHK	D. COLEY	
APP'D	K. WHITAKER	
PRODUCT SPEC		
APPLICATION SPEC		
WEIGHT		
CUSTOMER DRAWING		

THIS DRAWING IS A CONTROLLED DOCUMENT.	TOLERANCES UNLESS OTHERWISE SPECIFIED:
DIMENSIONS: mm [INCHES]	0 PL ±
	1 PL ±
	2 PL ±
	3 PL ±
	4 PL ±
	5 PL ±
	FINISH SEE TABLE

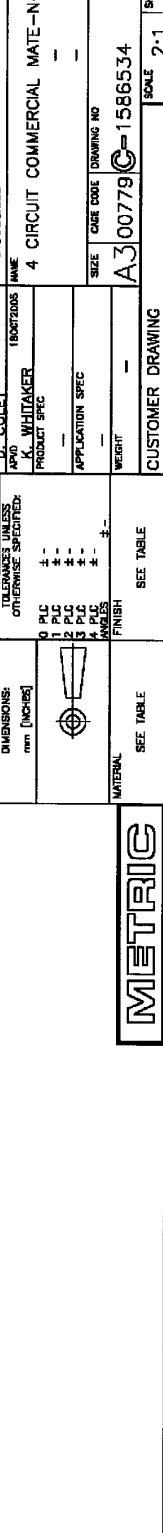
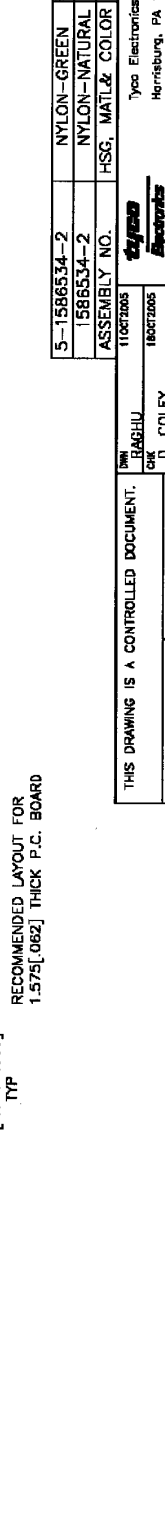
SIZE	CAGE CODE	DRAWING NO	SCALE	SHEET	1 of 1	REV	Q
A3	00779	1586534	2:1	1	1		

5-1586534-2	NYLON-GREEN	COPPER ALLOY-GOLD
1586534-2	NYLON-NATURAL	COPPER ALLOY-GOLD
ASSEMBLY NO.	HSG, MATL & COLOR	PIN MATL & FINISH
110CT003	Typo Electronics Corporation	
180CT005	Harrisburg, PA 17105-3808	
DRN	BRAGHU	
CHK	D. COLEY	
APP'D	K. WHITAKER	
PRODUCT SPEC		
APPLICATION SPEC		
WEIGHT		
CUSTOMER DRAWING		

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1	2	3	4
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1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 108-11-3.

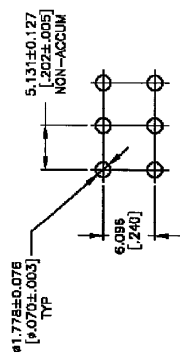
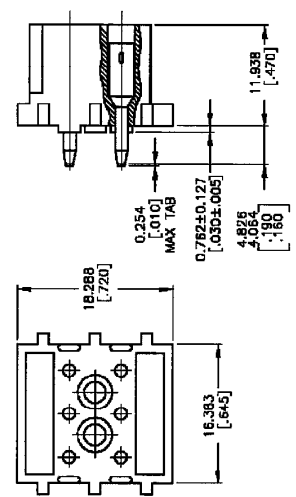
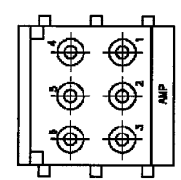


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LOC	DIST	REV	DATE	BY	APP'D
CM	00	0	11OCT05	HMR	DC
DESCRIPTION		RELEASED PER 003E-1134-04			

1586539-2	NYLON-NATURAL PHOS BRZ-GOLD
ASSEMBLY NO.	HSG, MATL & COLOR PIN MATL & FINISH
110672005	Tyco Electronics Corporation
180672005	Harrisburg, PA 17105-3608
180672006	NAME
	6 CIRCUIT COMMERCIAL MATE-N-LOK (TM) HEADER
	SIZE
	RESTRICTED TO
A3,00779	1586539
	SCALE 2:1
	SHEET 1 of 1
	REV 0

- MATES WITH HOUSING 480276.
- PARTS COMPLY WITH AMP SOLDERABILITY SPEC 10E-11-3.



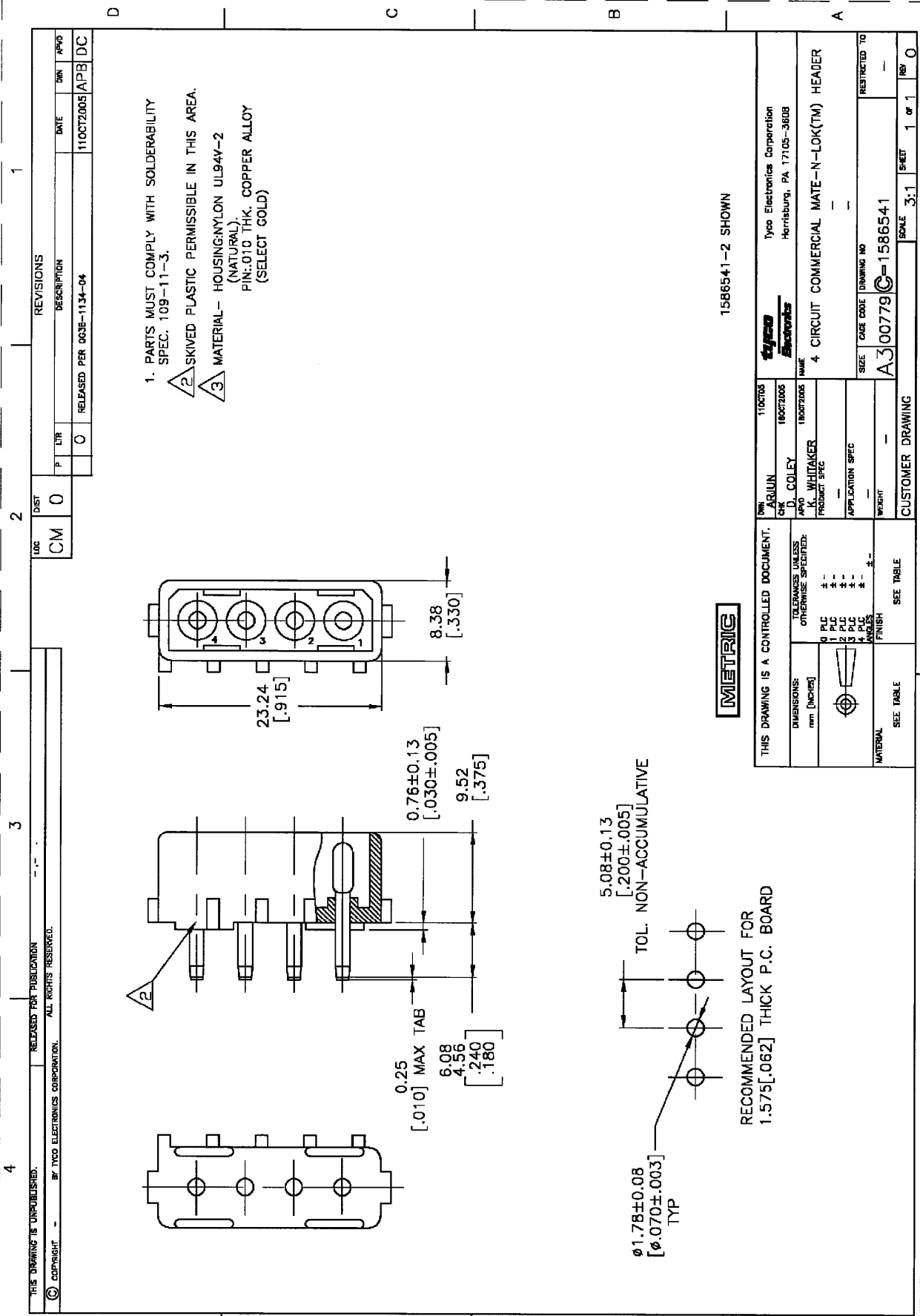
RECOMMENDED LAYOUT FOR
1.575[062] THICK P.C. BOARD

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS:	mm [inches]
1	PLC
2	PLC
3	PLC
4	PLC
5	PLC
6	PLC
FINISH	SEE TABLE

METRIC

AMP 1470-19 REV 31MAY2000



1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.
2. CHAMFERED PLASTIC PERMISSIBLE IN THIS AREA.
3. MATERIAL - HOUSING NYLON UL94V-2 (NATURAL)
PIN: 0.10 THK. COPPER ALLOY (SELECT GOLD)

REVISED PER 003B-1134-04		DATE	DRN	APPD
CM	O	110CT2005	APB	DC
LOC	DIST	REVISIONS		
CM	O	DESCRIPTION		

110CT05	180CT2005	180CT2005
BERLIN	COLEY	WHITAKER
COLEY	WHITAKER	WHITAKER
APPROV	PRODUCT SPEC	APPLICATION SPEC
WEIGHT	CUSTOMER DRAWING	

110CT05	180CT2005	180CT2005
BERLIN	COLEY	WHITAKER
COLEY	WHITAKER	WHITAKER
APPROV	PRODUCT SPEC	APPLICATION SPEC
WEIGHT	CUSTOMER DRAWING	

SIZE	CASE CODE	DRAWING NO	RESTRICTED TO
A3	00779	1586541	---
SCALE			1 OF 1
SHEET			3:1

METRIC

1586541-2 SHOWN

THIS DRAWING IS A CONTROLLED DOCUMENT.

TERMINALS UNLESS OTHERWISE SPECIFIED:

0	PLC	±
1	PLC	±
2	PLC	±
3	PLC	±
4	PLC	±
ANGLES		±

DIMENSIONS: (MM) (INCHES)

MATERIAL: SEE TABLE

FINISH: SEE TABLE

APPLICATOR: Teco Electronics Corporation, Harrisburg, PA 17105-3808

4. CIRCUIT COMMERCIAL MATE-N-LOK(TM) HEADER

5.08±0.13
[.200±.005]
TOL. NON-ACCUMULATIVE

RECOMMENDED LAYOUT FOR
1.575[.062] THICK P.C. BOARD

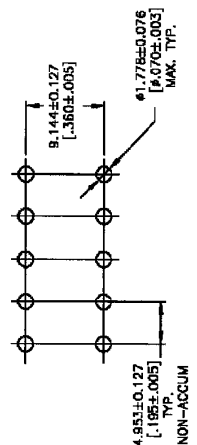
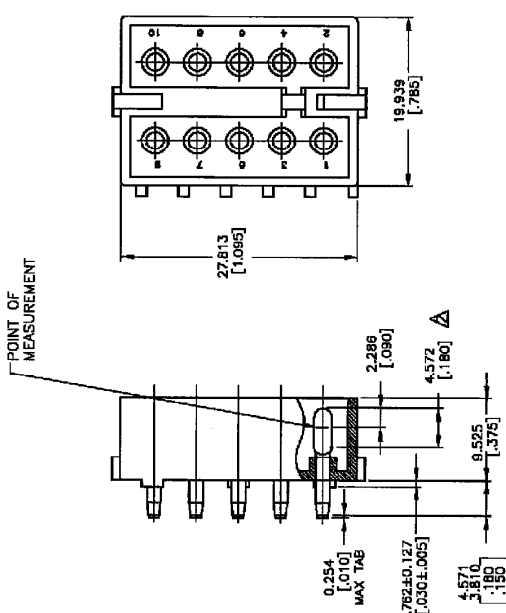
φ1.78±0.08
[φ.070±.003]
TYP

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REVISONS		DATE	BY	APP'D
F	LTR			
0	0	110CT05	IMR	DC
DESCRIPTION		RELEASED PER 003B-1134-04		

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.

CONTACT IS PLATED OVERALL WITH .000050 NICKEL, THEN .000030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



RECOMMENDED LAYOUT FOR 1.575[.062] THICK P.C. BOARD

2-1586544-0		NYLON-NATURAL COPPER ALLOY-GOLD A	
ASSEMBLY NO.	HSG, MATL. & COLOR	PIN MATL. & FINISH	
110CT005	180CT005	180CT005	
DESIGNER	CHK	APP'D	NAME
RAGHU	K. WHIATKER	D. COLEY	10 CIRCUIT COMMERCIAL MATE-N-LOK (TM) HEADER
TYCO ELECTRONICS CORPORATION		Harrisburg, PA 17105-3608	
TELEMANUALS UNLESS OTHERWISE SPECIFIED:		FINISH	
0 P.L.C.	±	0 P.L.C.	±
1 P.L.C.	±	1 P.L.C.	±
2 P.L.C.	±	2 P.L.C.	±
3 P.L.C.	±	3 P.L.C.	±
4 P.L.C.	±	4 P.L.C.	±
5 P.L.C.	±	5 P.L.C.	±
6 P.L.C.	±	6 P.L.C.	±
7 P.L.C.	±	7 P.L.C.	±
8 P.L.C.	±	8 P.L.C.	±
9 P.L.C.	±	9 P.L.C.	±
10 P.L.C.	±	10 P.L.C.	±
DIMENSIONS mm (INCHES)		MATERIAL SEE TABLE	
SEE TABLE		SEE TABLE	
WEIGHT		RESTRICTED TO	
A3 00779		C=1586544	
SCALE 2:1		SHEET 1 of 1	
CUSTOMER DRAWING		REF 0	

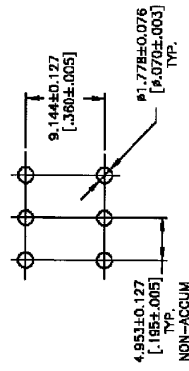
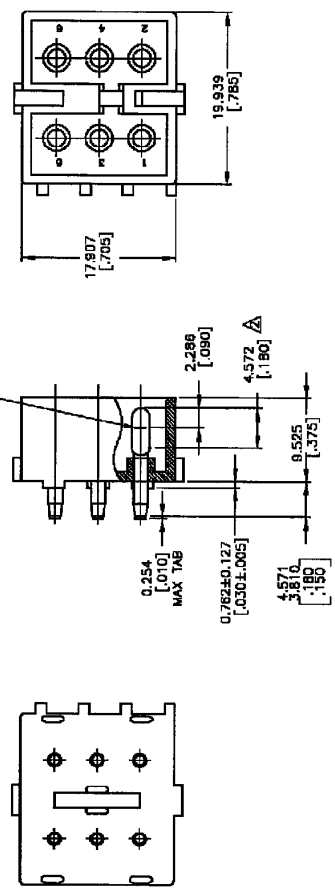
METRIC

AMP 1470-18 REV 31MAR2000

THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION BY TYCO ELECTRONICS CORPORATION. ALL RIGHTS RESERVED.

1	2	3	4
REVISIONS	DIST	LOC	DATE
DESCRIPTION	CM 00	CM 00	11OCT05
RELEASED PER 003B-1134-04			DC

1. PARTS MUST COMPLY WITH SOLDERABILITY SPEC. 109-11-3.
 CONTACT IS PLATED OVERALL WITH .00050 NICKEL, THEN .00030 GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.



RECOMMENDED LAYOUT FOR 1.575[.082] THICK P.C. BOARD

2-1586546-0	NYLON-NATURAL COPPER ALLOY-GOLD
ASSEMBLY NO.	HSG, MATL & COLOR PIN MATL & FINISH
110873005	Typco Electronics Corporation
180272005	Harrisburg, PA 17105-3808
180272005	NAME
180272005	6 CIRCUIT COMMERCIAL MATE-N-LOK (TM) HEADER
180272005	SIZE
180272005	SCALE CODE DRAWING NO
180272005	A3 00779 C=1586546
180272005	RESTRICTED TO
180272005	SCALE 2:1
180272005	SHEET 1 of 1
180272005	REV 0

THIS DRAWING IS A CONTROLLED DOCUMENT.	TELEPHONE UNLESS OTHERWISE SPECIFIED:
DIMENSIONS: mm [INCHES]	0 P.C. ±
	1 P.C. ±
	2 P.C. ±
	3 P.C. ±
	4 P.C. ±
	5 P.C. ±
	6 P.C. ±
	FINISH
MATERIAL SEE TABLE	SEE TABLE
CUSTOMER DRAWING	

METRIC

AMP 1470-18 REV 310482000

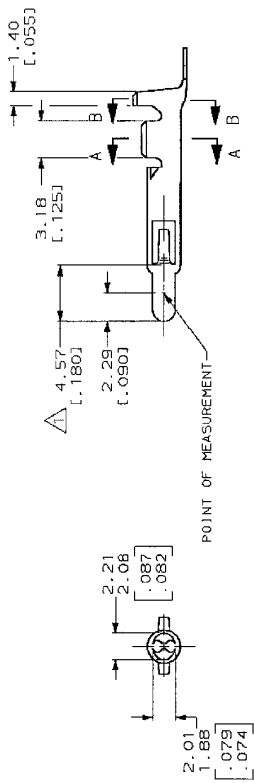
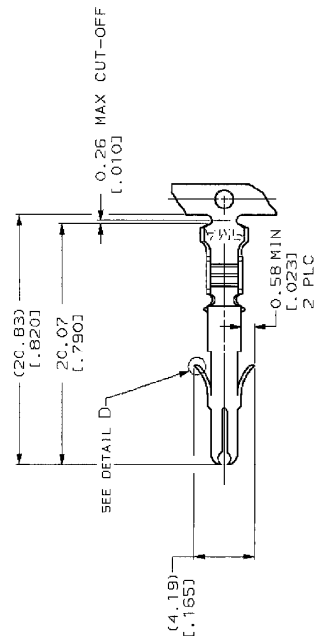
REV	DATE	DESCRIPTION
CM 00	AA	REV 8 REDRAW PER EC 003E-0107-02

LOC	QTY	REV	DATE	BY	APP'D
CM 00	AA	REV 8	02-10-82	EC	SR

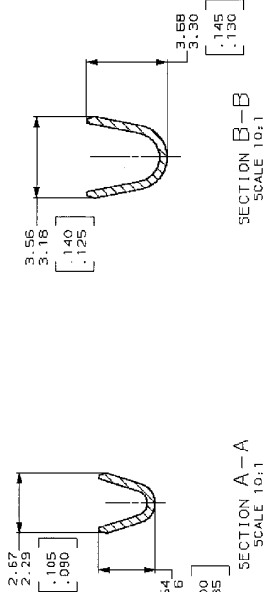
THIS DRAWING IS CONTROLLED BY AMP INCORPORATED. ALL RIGHTS RESERVED.

© COPYRIGHT 1982 BY AMP INCORPORATED

- 1. PLATED WITH 0.00076 [0.00030] GOLD, OVER 0.00127 [0.00050] NICKEL UNDERPLATE.
- 2. PLATED INTERNALLY WITH 0.00076 [0.00030] GOLD.
- 3. WIRE RANGE 0.2-0.75 mm [24-18 AWG].
- 4. INSULATION RANGE 2.54 [1.00] DIA MAX.

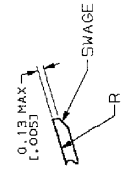


DETAIL A
SCALE 20:1



SECTION A-A
SCALE 10:1

SECTION B-B
SCALE 10:1



DETAIL B
SCALE 20:1

350706-7	0.30 [0.12]	BRASS	GOLD Δ	350699-7
	0.30 [0.12]	PH BRZ	PRE-TIN	350699-3
350706-2	0.30 [0.12]	BRASS	GOLD Δ	350699-2
350706-1	0.30 [0.12]	BRASS	PRE-TIN	350699-1
LOOSE PIECE (REF)		MATERIAL	FINISH	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

BY: K. HILLMEIER 25-FEB-82
 DATE: 01-10-81 25-FEB-82
 BY: R. IDSELL 25-FEB-82
 PROJECT NO: A200779

FILE NO: 10-251-010
 PL: 1
 PL: 1
 PL: 1
 PL: 1
 PL: 1
 PL: 1
 PL: 1
 PL: 1
 PL: 1
 PL: 1
 PL: 1
 PL: 1

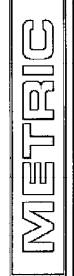
SEE TABLE FOR MATERIALS AND FINISHES.
 SEE TABLE FOR DIMENSIONS.

APPLICATOR: SEE TABLE
 CUSTOMER: A200779-550699

SCALE: 4:1 SHEET 1 OF 1 REV AA

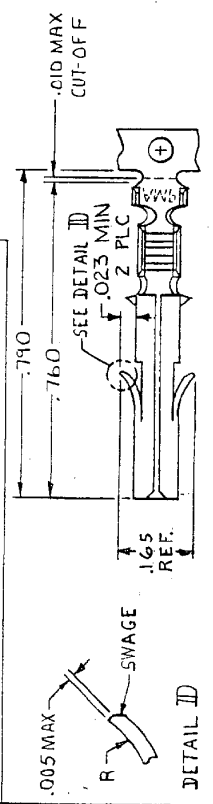
AMP INCORPORATED
 HARRISBURG, PA 17105-8608

SPLIT PIN,
 UNIVERSAL MATE-N-LOK™

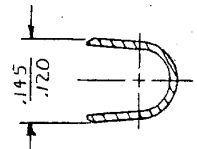
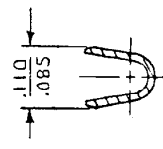
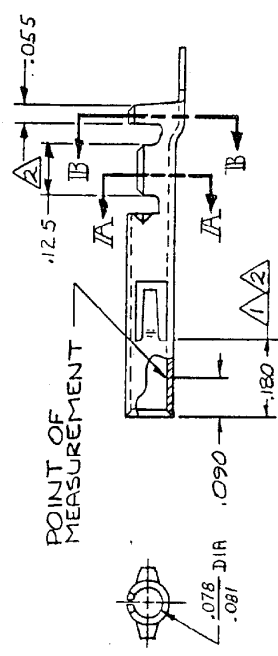


DRAWING MADE IN THIRD ANGLE PROJECTION

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DETAIL D



▲ .00003 THICK GOLD OVER NICKEL ON INSIDE OF RECEPTACLE;
REMAINDER OF CONTACT IS NICKEL PLATED.
▲ .00030 THICK GOLD OVER NICKEL ON INSIDE OF RECEPTACLE AND
WIRE BARREL; REMAINDER OF CONTACT IS NICKEL PLATED.

ZONE		REVISIONS		DATE		APPROVED	
P	F	DESCRIPTION	M-6457	6-581	M51	2/4	
✓	K	REDRAWN W/O CHANGE	M-6457	6-581	M51	2/4	
✓	L	ADDED .090, .060 DIMS, PROFORMERS, M-7351	5/17/83	10-11-83	TW	2/4	
✓	M	REV PER ECN AG-25	AG 57	10-11-83	10-11-83	2/4	
✓	N	REVISED	AG 57	10-11-83	10-11-83	2/4	
✓	NI	RESTORATION	AG 57	10-11-83	10-11-83	2/4	
✓	P	REV PER EC 0730-3607-91	AG 57	4-23-85	5T	AD	
✓				1-6-94	RV	RS	

SECTION A-A

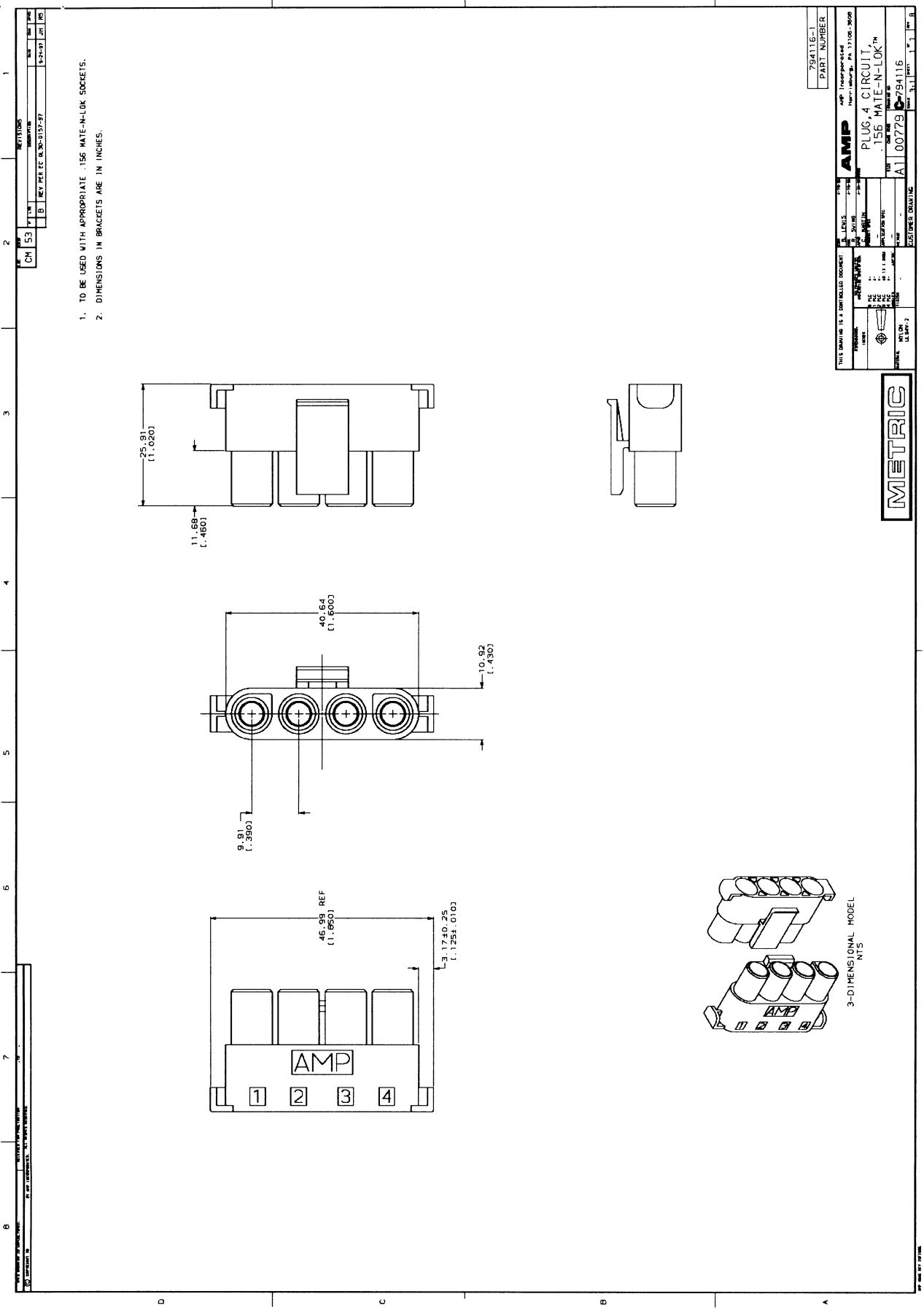
SECTION B-B

LOOSE PIECE (REP)	FINISH	MATERIAL	PART NO
—	GOLD	.012 BRASS	350851-7
6403472	GOLD	.012 BRASS	350851-2
—	PRE-TIN	.012 BRASS	350851-1

CONTRACT NO		AMP INCORPORATED	
DR. <i>M. Feltre</i> 4-23-81		HARRISBURG, PA.	
CHKD. <i>S. S. ...</i> 6/9/81		NAME	
APPD. <i>...</i> 6-10-81		SOCKET,	
WIRE RANGE		UNIVERSAL MATE-N-LOK	
24-18 AWG		SIZE	
INSULATION RANGE		B	
.100 DIR MAX		CODE IDENT NO	
		00779	
		DRAWING NO	
		350851	
		SCALE	
		4-1	
		SHEET	
		350851	

AMP 1470-15 REV B-79

CUSTOMER DRAWING



1. TO BE USED WITH APPROPRIATE .156 MATE-N-LOK SOCKETS.
2. DIMENSIONS IN BRACKETS ARE IN INCHES.

REV 001		REV 002		REV 003		REV 004		REV 005	
CH	53	CH	53	CH	53	CH	53	CH	53
REV 001		REV 002		REV 003		REV 004		REV 005	
DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY

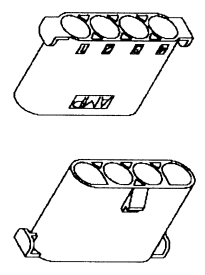
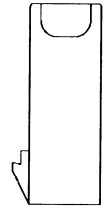
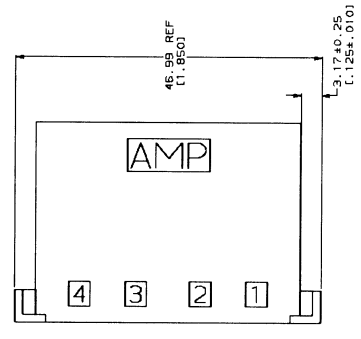
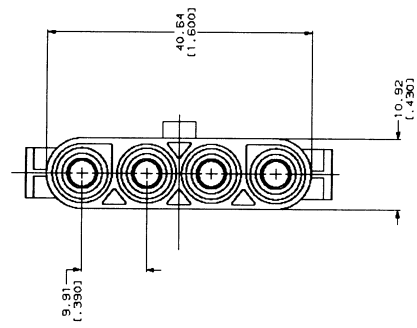
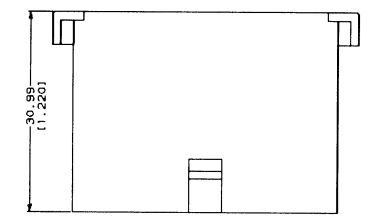
794116-1	
PART NUMBER	
AMP Incorporated	
10001 WILSON BLVD, P.O. BOX 5008	
MILWAUKEE, WISCONSIN 53214	
PLUG, 4 CIRCUIT, .156 MATE-N-LOK™	
ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED DATE 08-28-2008 BY 60322 UCBAW/BJS	
A11 00779 794116	
SET/REP DRAWING	

METRIC

FIG 297
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	CHKD	APP'D
CM 153				
80713000 1.1.1.1 A MET PER EC 00.30.0137-97 8-25-97 JH				

1. TO BE USED WITH APPROPRIATE .156 MATE-N-LOK PINS.
2. DIMENSIONS IN BRACKETS ARE IN INCHES.



3-DIMENSIONAL MODEL
NTS

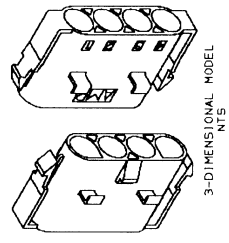
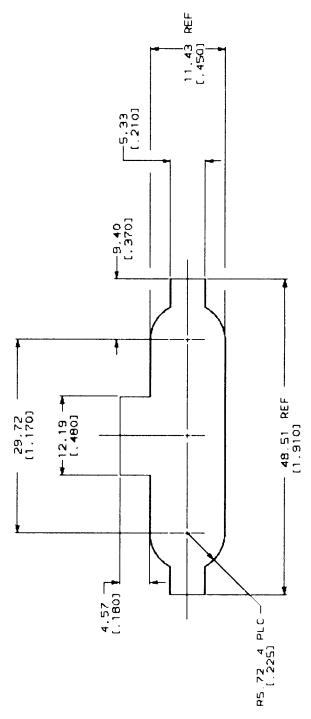
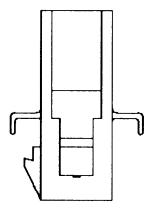
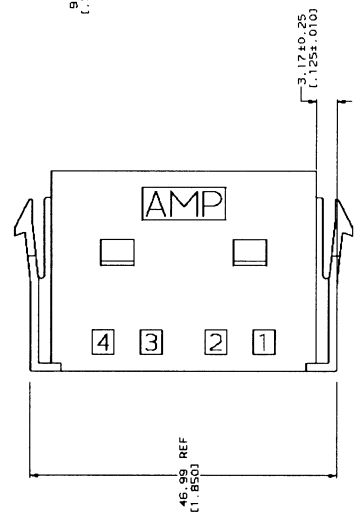
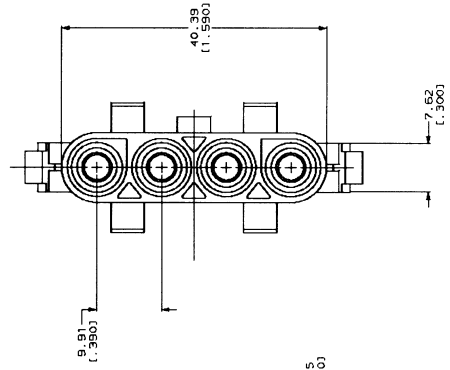
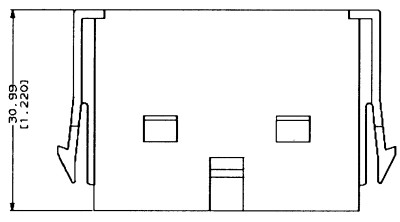
794117-1		PART NUMBER	
THIS DRAWING IS A CONTROLLED DOCUMENT AMP Incorporated 100 LENOX AVENUE NORTH WAREHOUSING, PA. 17050-2600			
PROJ	REV	DATE	BY
AMP	1	11/11/97	JH
CAP, 4 CIRCUIT, .156 MATE-N-LOK™			
QTY	UNIT	PRICE	AMOUNT
1	EA	1.00	1.00
ESTIMATED QUANTITY: 100000 ESTIMATED DATE: 11/11/97			



2025-02 13:13:00 AMP 8000 AutoCAD/2004/10/25/10

REV	DATE	BY	CHK	DESCRIPTION
CM 153				REVISED TO ADD .156 MATE-N-LOC PINS
1				REVISED TO ADD .156 MATE-N-LOC PINS

1. TO BE USED WITH APPROPRIATE .156 MATE-N-LOC PINS.
2. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PANEL.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.



794118-1
PART NUMBER

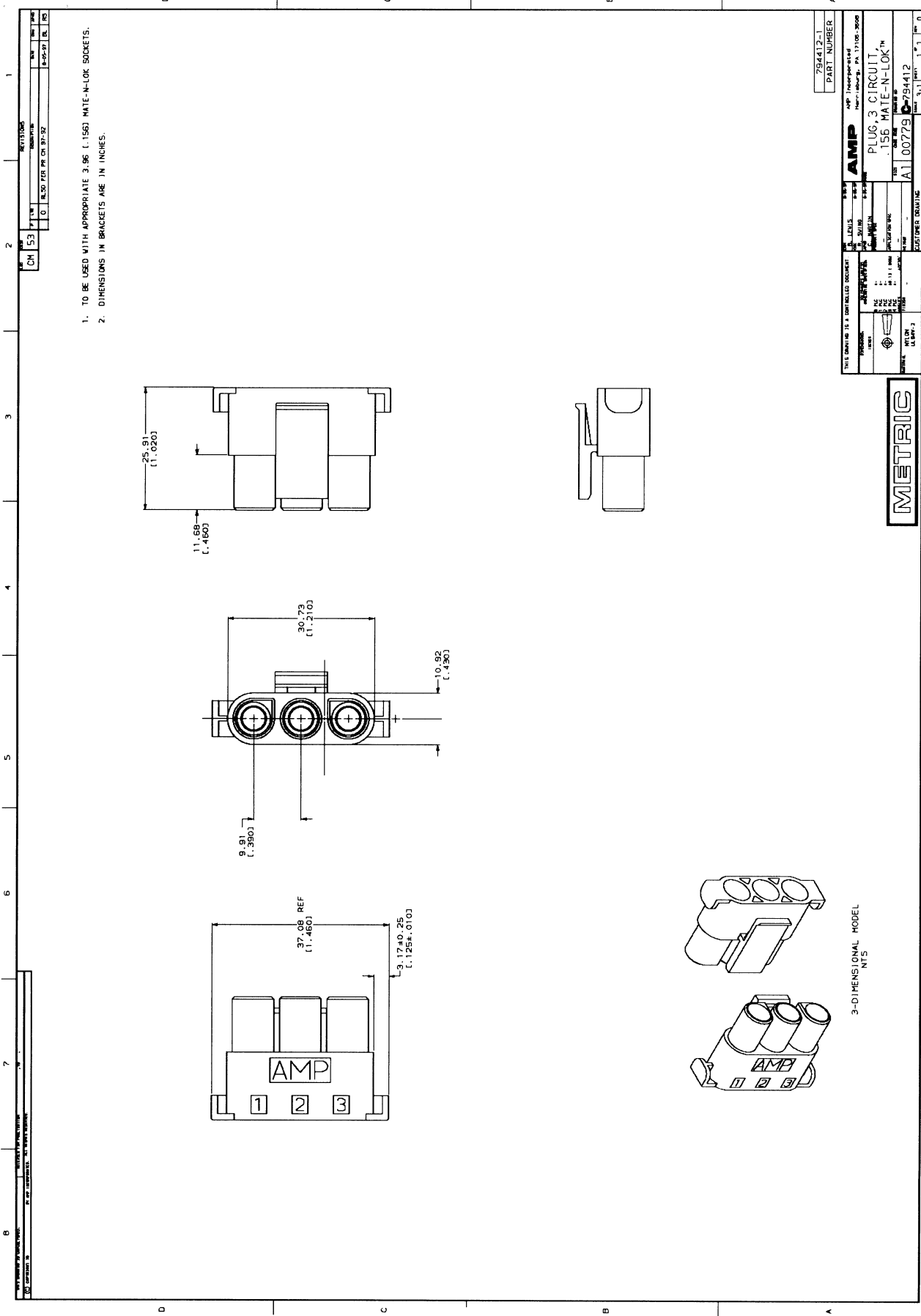
THIS DRAWING IS A CONTROLLED DOCUMENT

AMP
CIRCUIT .156 MATE-N-LOC™
A1 00779

FOR 0.76 (1.030) TO 2.29 (1.090) THICK PANEL

METRIC

9-88-28 H. D. SP. 447875 AMP-794118-1



794412-1	PART NUMBER
AMP	MANUFACTURER
PLUG, 3 CIRCUIT, .156 MATE-N-LOK™	DESCRIPTION
AI 00779	REV
794412	PART NUMBER

METRIC

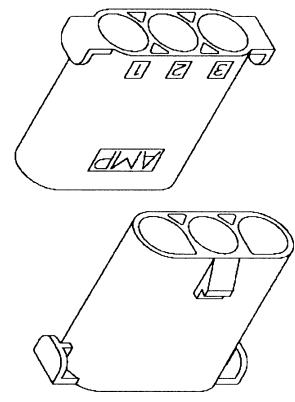
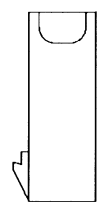
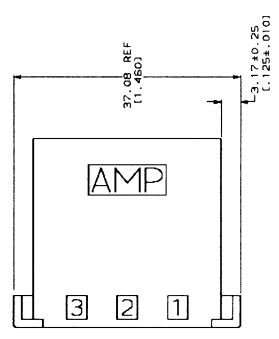
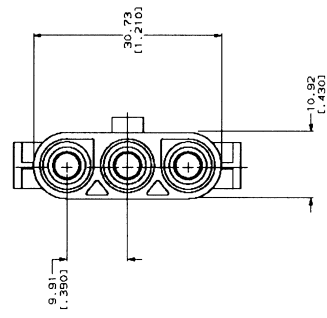
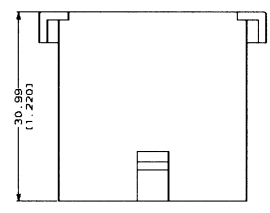
3-DIMENSIONAL MODEL NTS

REV 000000 02 MAR 15 10:00:11 AM

FIG 300
Project 70070692
Report 1030930
Contract 164196
LR 7189-549

REVISIONS		1
CM	53	REVISED FOR CH 37-52
CM	53	REVISED FOR CH 37-52

1. TO BE USED WITH APPROPRIATE 3-56 (.156) MATE-N-LOK PINS.
2. DIMENSIONS IN BRACKETS ARE IN INCHES.



3-DIMENSIONAL MODEL
NT5

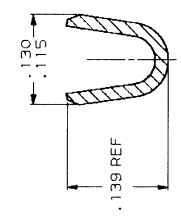
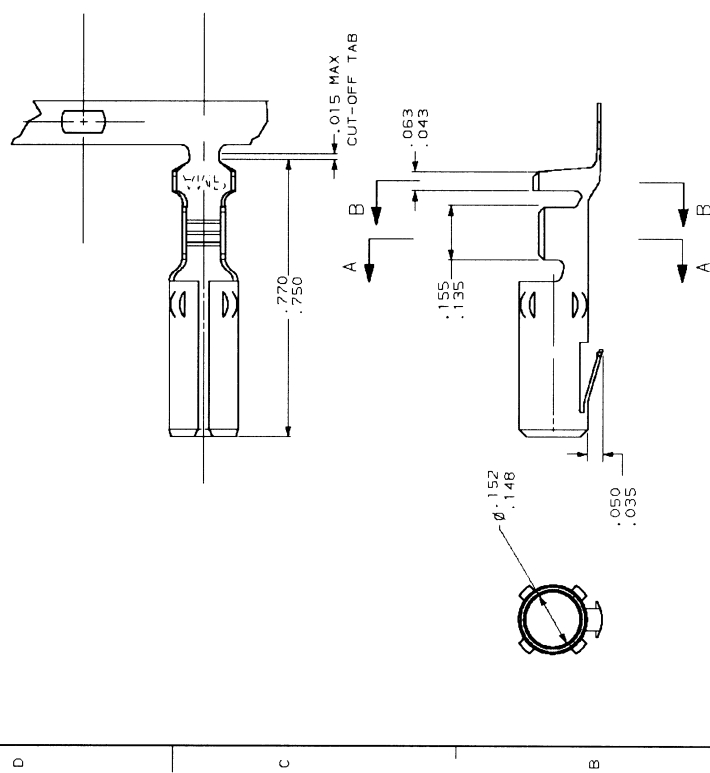
7004413-1	PART NUMBER
AMP	Manufacturer
AMP	Part Number
AMP	Part Name
AMP	Part Description
AMP	Part Material
AMP	Part Quantity
AMP	Part Location
AMP	Part Drawing
AMP	Part Revision
AMP	Part Date
AMP	Part Status



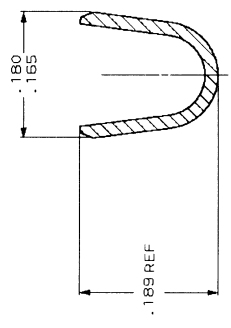
FIG 301
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

THIS DRAWING IS UNLESS NOTED OTHERWISE.		REVISED PER EC 053B-0079-00	
DATE	BY	DATE	BY
1-1-78	CM 53	1-1-78	CM 53
REVISIONS		REVISIONS	
DESCRIPTION		DESCRIPTION	
S		S	

1. WIRE RANGE: 20-14 AWG (0.5-2MM²).
INSULATION RANGE: .125 MAX.

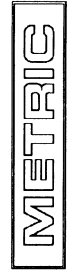


SECTION A-A
SCALE 10:1



SECTION B-B
SCALE 10:1

CONVERSION TABLE	
MM	IN
.050	1.27
.043	1.09
.035	0.89
.018	0.46
.015	0.38
.005	0.13
IN	MM
MM	IN
1.60	1.48
3.75	1.89
3.86	1.905
3.94	1.95
3.96	1.95
4.19	1.95
4.57	1.95

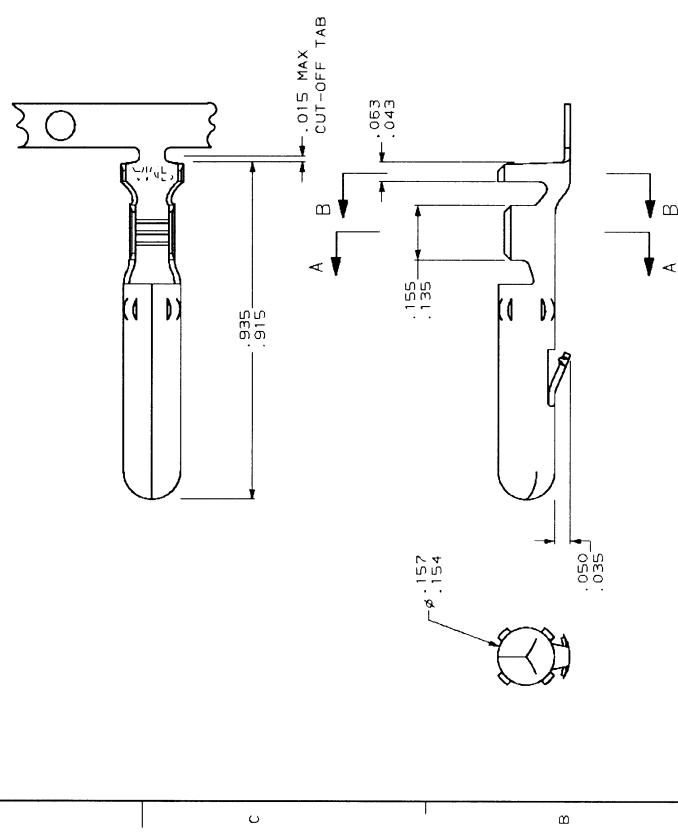


PRELIMINARY	TIN	.018 PH BRZ	610BS-3
	TIN	.018 BRASS	610BS-1
	FINISH	MATERIAL	PART NO
<p>1. THIS DRAWING IS UNLESS NOTED OTHERWISE.</p> <p>2. DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.</p> <p>3. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE TO BE HIDDEN.</p> <p>4. DIMENSIONS ARE TO BE SHOWN TO THE CENTER UNLESS OTHERWISE SPECIFIED.</p> <p>5. DIMENSIONS ARE TO BE SHOWN TO THE SURFACE UNLESS OTHERWISE SPECIFIED.</p> <p>6. DIMENSIONS ARE TO BE SHOWN TO THE CENTER UNLESS OTHERWISE SPECIFIED.</p> <p>7. DIMENSIONS ARE TO BE SHOWN TO THE SURFACE UNLESS OTHERWISE SPECIFIED.</p>			
DATE	BY	DATE	BY
1-1-78	CM 53	1-1-78	CM 53
REVISIONS		REVISIONS	
DESCRIPTION		DESCRIPTION	
S		S	
<p>AMP Incorporated Horseshoe, PA 17105-3608</p> <p>SOCKET, .156 MATE-N-LOK™</p> <p>SIZE: .156 MATE-N-LOK™ PART NO: A2-00779 REV: 5.1</p>			
CUSTOMER DRAWING			

171-FEB-80 11:52:11 AM (5:30PM) (5:30PM)

DATE	REVISED PER EC 0638-0079-00	DATE	REVISED PER EC 0638-0079-00
CM	53	N	REVISED PER EC 0638-0079-00
REVISIONS		REVISIONS	
DESCRIPTION	DATE	DESCRIPTION	DATE

1. WIRE RANGE: 20-14 (0.5-2mm²) AWG
INSULATION RANGE: .125 MAX.



SECTION A-A
SCALE 10:1

SECTION B-B
SCALE 10:1

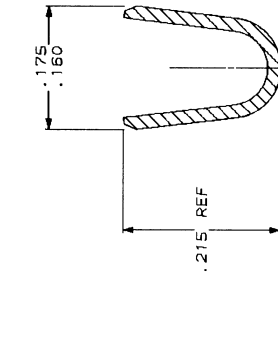
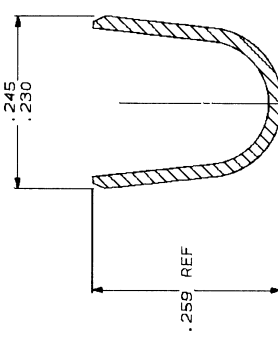
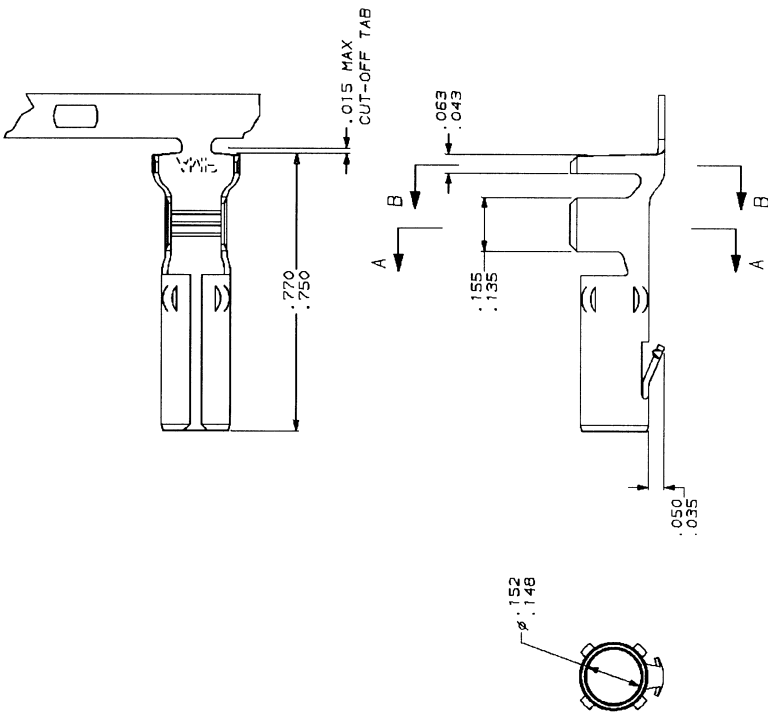
		CONVERSION TABLE	
IN	MM	IN	MM
.050	1.27	.139	3.53
.043	1.09	.135	3.43
.035	0.89	.130	3.30
.018	0.46	.125	3.18
.015	0.38	.115	2.92
.005	0.13	.063	1.60
IN	MM	IN	MM

METRIC

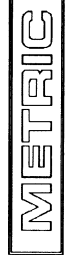
PRELIMINARY	TIN	.018 PH BRZ	61086-3
	FINISH	.018 BRASS	61086-1
		MATERIAL	PART NO
THIS DRAWING IS A CONTROLLED DOCUMENT.			
DESIGNED BY	DATE	APPROVED BY	DATE
CM	53	AMP	
AMP Incorporated Horsham, PA 17105-3608			
PARTIAL TITLE		SIZE	DATE
.156 MATE-N-LOK™		A2	00779
PARTIAL NUMBER		REV	5.1
CUSTOMER DRAWING		REV	1

REV	DATE	BY	CHKD	REVISIONS	
				DESCRIPTION	DATE
CM	53				
F				REV AND REORDIN PER EC 04.30-0001-86	12-86
					JH RS

1. WIRE RANGE, 12-10 (3-6mm²) AWG
INSULATION RANGE, .185 MAX.

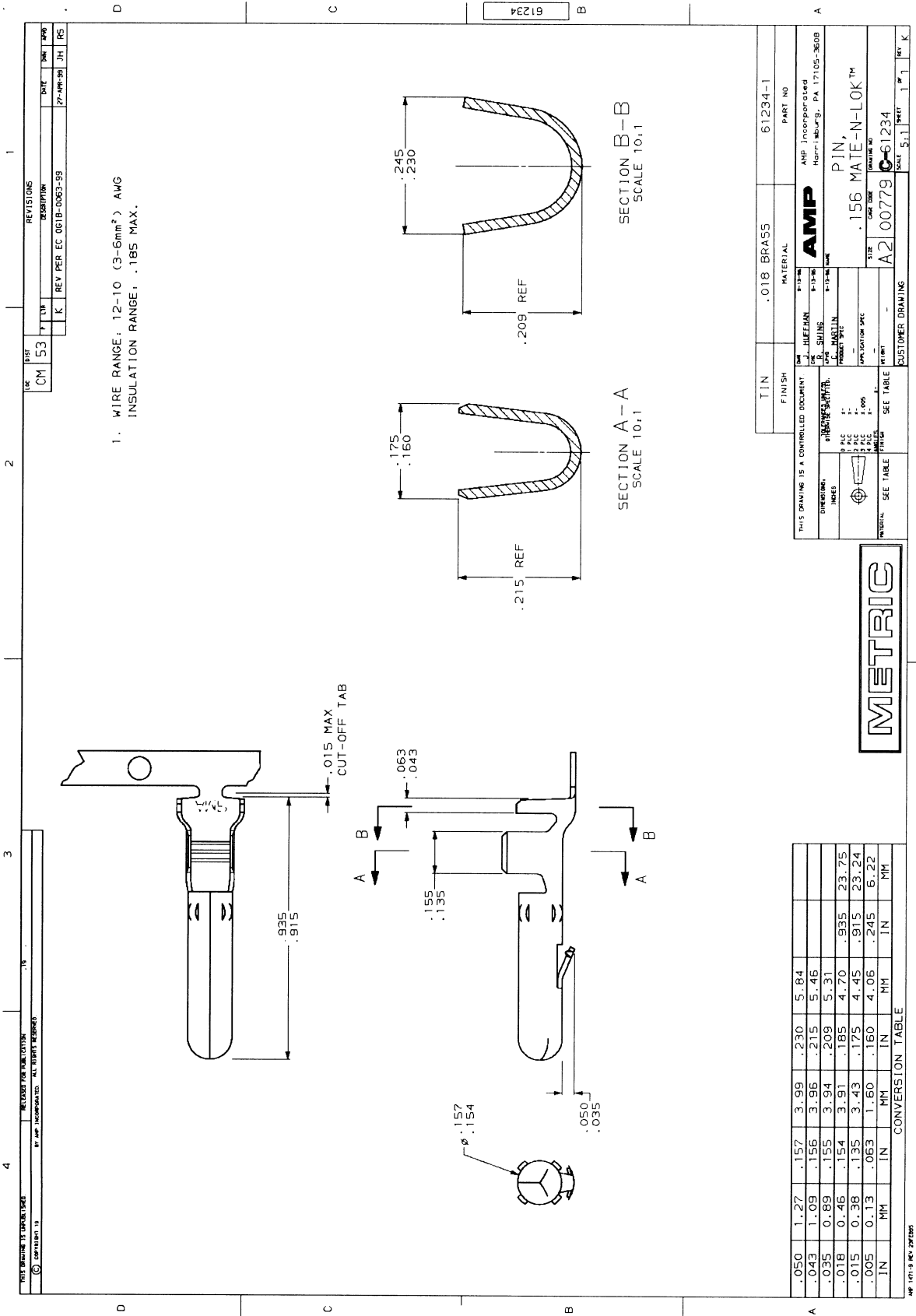


CONVERSION TABLE	
IN	MM
MM	IN
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2.00	50.8
3.00	76.2
4.00	101.6
5.00	127.0
6.00	152.4
7.00	177.8
8.00	203.2
9.00	228.6
10.00	254.0
12.50	317.5
15.00	381.0
17.50	444.5
20.00	508.0
25.00	635.0
30.00	762.0
35.00	889.0
40.00	1016.0
45.00	1143.0
50.00	1270.0
55.00	1397.0
60.00	1524.0
65.00	1651.0
70.00	1778.0
75.00	1905.0
80.00	2032.0
85.00	2159.0
90.00	2286.0
95.00	2413.0
100.00	2540.0



TIN		.018 BRASS		MATERIAL		61233-1	
FINISH						PART NO	
THIS DRAWING IS A CONTROLLED DOCUMENT.							
DRAWN BY		CHKD BY		DATE		REV	
D. J. HOFFMAN		B. J. MURPHY		6-13-86		1	
J. B. SHANKS		C. A. MARTIN		6-12-86		2	
C. B. JONES		D. E. BROWN		6-11-86		3	
E. F. GREEN		G. H. WHITE		6-10-86		4	
H. I. BLACK		K. L. GOLD		6-9-86		5	
M. N. SILVER		O. P. BRONZE		6-8-86		6	
Q. R. IRON		S. T. STEEL		6-7-86		7	
U. V. ALUMINUM		W. X. COPPER		6-6-86		8	
Y. Z. NICKEL		AA. BB. TITANIUM		6-5-86		9	
CC. DD. ZINC		EE. FF. BRASS		6-4-86		10	
GG. HH. STEEL		II. JJ. ALUMINUM		6-3-86		11	
KK. LL. COPPER		MM. NN. BRASS		6-2-86		12	
OO. PP. IRON		QQ. RR. STEEL		6-1-86		13	
SS. TT. ALUMINUM		UU. VV. ZINC		6-30-85		14	
WW. XX. NICKEL		YY. ZZ. BRASS		6-29-85		15	
AA. BB. COPPER		CC. DD. IRON		6-28-85		16	
EE. FF. ALUMINUM		GG. HH. STEEL		6-27-85		17	
II. JJ. ZINC		KK. LL. BRASS		6-26-85		18	
MM. NN. TITANIUM		OO. PP. NICKEL		6-25-85		19	
QQ. RR. COPPER		SS. TT. ALUMINUM		6-24-85		20	
UU. VV. IRON		WW. XX. BRASS		6-23-85		21	
YY. ZZ. STEEL		AA. BB. ALUMINUM		6-22-85		22	
CC. DD. ZINC		EE. FF. COPPER		6-21-85		23	
GG. HH. NICKEL		II. JJ. BRASS		6-20-85		24	
KK. LL. IRON		MM. NN. ALUMINUM		6-19-85		25	
OO. PP. STEEL		QQ. RR. ZINC		6-18-85		26	
SS. TT. BRASS		UU. VV. TITANIUM		6-17-85		27	
WW. XX. NICKEL		YY. ZZ. COPPER		6-16-85		28	
AA. BB. ALUMINUM		CC. DD. IRON		6-15-85		29	
EE. FF. STEEL		GG. HH. BRASS		6-14-85		30	
II. JJ. ZINC		KK. LL. ALUMINUM		6-13-85		31	
MM. NN. COPPER		OO. PP. STEEL		6-12-85		32	
QQ. RR. BRASS		SS. TT. ZINC		6-11-85		33	
UU. VV. TITANIUM		WW. XX. NICKEL		6-10-85		34	
YY. ZZ. COPPER		AA. BB. BRASS		6-9-85		35	
CC. DD. ALUMINUM		EE. FF. IRON		6-8-85		36	
GG. HH. STEEL		II. JJ. ZINC		6-7-85		37	
KK. LL. BRASS		MM. NN. ALUMINUM		6-6-85		38	
OO. PP. NICKEL		QQ. RR. COPPER		6-5-85		39	
SS. TT. IRON		UU. VV. STEEL		6-4-85		40	
WW. XX. BRASS		YY. ZZ. ZINC		6-3-85		41	
AA. BB. ALUMINUM		CC. DD. COPPER		6-2-85		42	
EE. FF. STEEL		GG. HH. BRASS		6-1-85		43	
II. JJ. ZINC		KK. LL. ALUMINUM		6-30-84		44	
MM. NN. COPPER		OO. PP. STEEL		6-29-84		45	
QQ. RR. BRASS		SS. TT. ZINC		6-28-84		46	
UU. VV. TITANIUM		WW. XX. NICKEL		6-27-84		47	
YY. ZZ. COPPER		AA. BB. BRASS		6-26-84		48	
CC. DD. ALUMINUM		EE. FF. IRON		6-25-84		49	
GG. HH. STEEL		II. JJ. ZINC		6-24-84		50	

FIG 304
Project 70059209
Report 1030930
Contract 164196
LR 7189-549



1. WIRE RANGE: 12-10 (3-6mm²) AWG
INSULATION RANGE: .185 MAX.

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

TIN	FINISH	MATERIAL	PART NO
		.018 BRASS	61234-1

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

REV	DATE	DESCRIPTION
K	27-APR-99	REV PER EC 0618-0063-98
JH	RS	
CM	53	

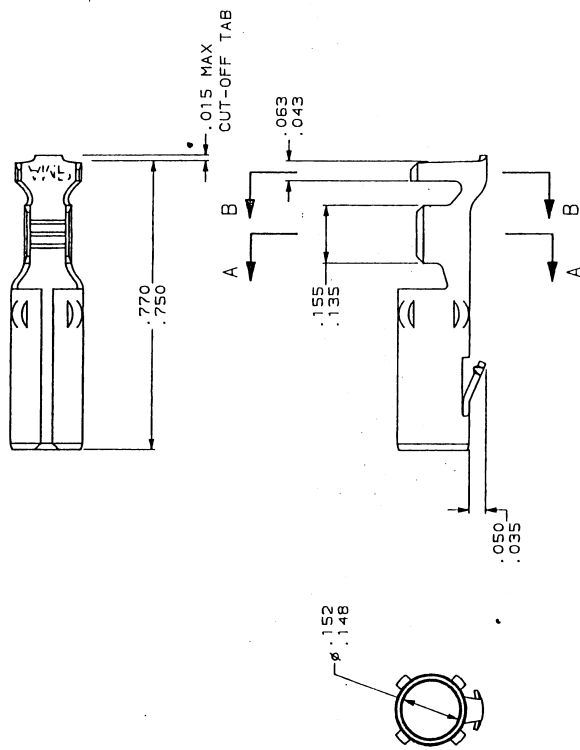
METRIC

IN	MM	IN	MM	IN	MM
.050	1.27	.157	3.99	.230	5.84
.043	1.09	.156	3.96	.215	5.46
.035	0.89	.155	3.94	.209	5.31
.018	0.46	.154	3.91	.185	4.70
.015	0.38	.135	3.43	.175	4.45
.005	0.13	.063	1.60	.160	4.06
IN	MM	IN	MM	IN	MM

AMP 001-1 REV 2/2/95
11.01.02 IMP:0275 FROM:7/95 (E704/4/00)

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BY: JWP INCORPORATED, ALL RIGHTS RESERVED.		DATE: 10/15/00	
REV. NO.	DATE	DESCRIPTION	BY
CM 53		D REACT & REDNH PER EC 0730-0171-56	E-25-96 B1

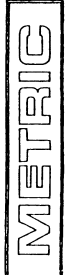
1. WIRE RANGE: 20-14 (0.5-2mm²) AWG
INSULATION RANGE: .125 MAX.



SECTION B-B
SCALE 10:1

SECTION A-A
SCALE 10:1

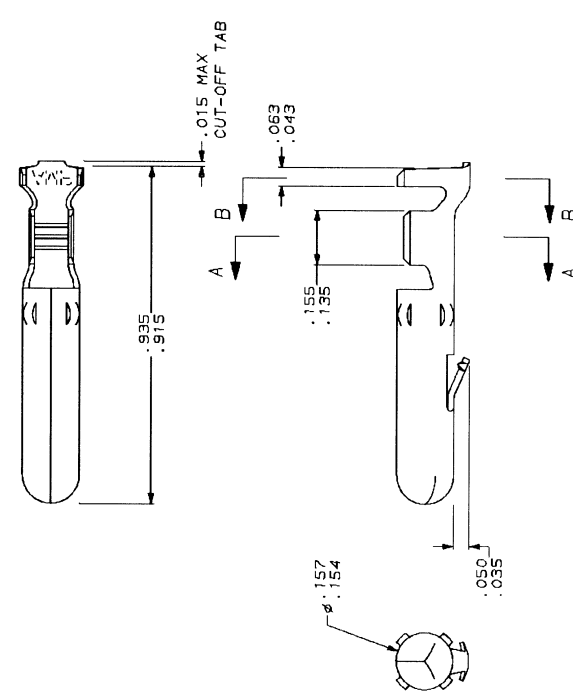
CONVERSION TABLE		IN		MM	
.050	1.27	.139	3.53	.180	4.57
.043	1.09	.135	3.43	.165	4.19
.035	0.89	.130	3.30	.156	3.96
.018	0.46	.125	3.18	.155	3.94
.015	0.38	.115	2.92	.152	3.86
.005	0.13	.063	1.60	.148	3.76
IN	MM	IN	MM	IN	MM



FINISH		MATERIAL		PART NO	
TIN		.018 BRASS		61250-1	
THIS DRAWING IS A CONTROLLED DOCUMENT.					
DRAWING NO.		REV. NO.		DATE	
61250-1		1		10/15/00	
DRAWN BY: JWP INCORPORATED					
CHECKED BY: JWP INCORPORATED					
APPROVED BY: JWP INCORPORATED					
PROJECT NO. 61250-1					
PRODUCT NAME SOCKET, LOOSE PIECE					
MATERIAL .018 BRASS					
FINISH TIN					
PART NO 61250-1					
CUSTOMER DRAWING					
SCALE 5:1					
SHEET 1 OF 1					

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© COPYRIGHT 18		BY AMP INCORPORATED. ALL RIGHTS RESERVED.		CM 53		REV. DATE		REVISIONS		DATE	
						A		B		C	
						B		REACT & REFIN PER EC 0730-0171-S6		8-25-86	
										BL	
										RS	

1. WIRE RANGE, 20-14 (0.5-2mm²) AWG
INSULATION RANGE, .125 MAX.

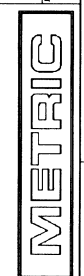


SECTION A-A
SCALE 10:1

SECTION B-B
SCALE 10:1

		CONVERSION TABLE	
	IN	MM	IN
.050	1.27	1.39	3.53
.043	1.08	1.15	3.23
.035	0.89	1.10	3.30
.018	0.46	1.25	3.18
.015	0.38	1.15	2.92
.005	0.13	0.63	1.60
	IN	MM	IN
		MM	IN

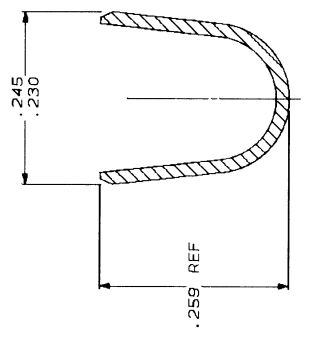
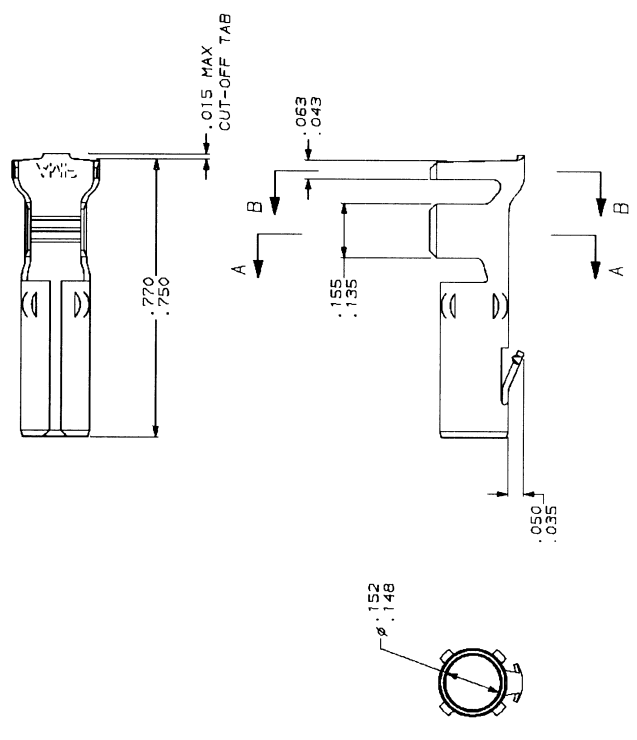
THIS DRAWING IS A CONTROLLED DOCUMENT.		MATERIAL		PART NO	
BY: LEWIS		.018 BRASS		61251-1	
CHECKED: SWAN		FINISH			
APPROVED: C. MARTIN		MATERIAL			
PRODUCT: AMP		AMP		AMP Incorporated	
DRAWING NO		P/N, LOOSE PIECE,		Harrisburg, PA 17105-3608	
SIZE		.156 MATE-N-LOK™			
PART NO		A2.00779		C-61251	
MATERIAL		BRASS		CUSTOMER DRAWING	
FINISH		PRE-TIN		REV. 1	
DATE		8-25-86		PAGE 5,1	



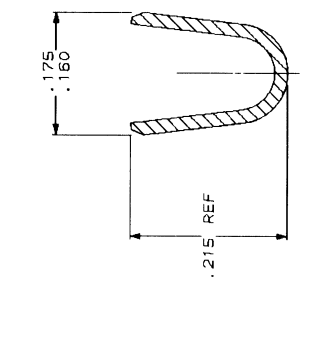
AMP 171-8 REV 2/86S
3P-WV-56 2/14/47 amp0558 Amp/amp0558/medusa/amp156/L.dgp

THIS DRAWING IS UNCONTROLLED		REVISED FOR PURCHASE		DATE		BY		CHK		APP	
COPYRIGHT © 19		BY AMP INCORPORATED ALL RIGHTS RESERVED		18		1		2		3	
USE		REV		DATE		BY		CHK		APP	
CM		53		18-09-08		E-25-08		BL		RS	
D		REACT & REDNN PER EC 0730-071-96									

1. WIRE RANGE: 12-10 (3-6mm²) AWG
INSULATION RANGE: .185 MAX.



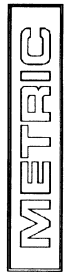
SECTION A-A
SCALE 10:1



SECTION B-B
SCALE 10:1

		IN		MM	
.050	1.27	.156	3.96	.245	6.22
.043	1.09	.155	3.94	.230	5.84
.035	0.89	.152	3.86	.215	5.46
.018	0.46	.148	3.76	.185	4.70
.015	0.38	.135	3.43	.175	4.45
.005	0.13	.063	1.60	.160	4.06
IN	MM	IN	MM	IN	MM

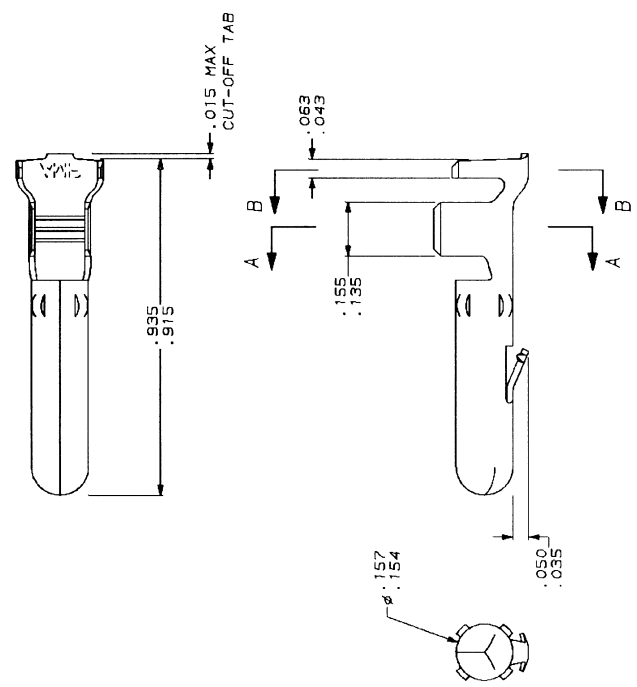
CONVERSION TABLE



THIS DRAWING IS A CONTROLLED DOCUMENT.		PART NO	
REV	DATE	61252-1	
1	18-09-08	AMP Incorporated	
DRAWN BY: J. MARTIN		Harrisburg, PA 17105-3608	
CHECKED BY: J. MARTIN		SOCKET, LOOSE PIECE,	
PARTICULARS: NONE		.756 MATE-N-LOK™	
MATERIAL: BRASS		DRAWING NO: 61252	
FINISH: PRE-TIN		SIZE: A2	
PART NO: 61252-1		MATERIAL: .018 BRASS	
FINISH: PRE-TIN		DRAWING NO: 61252	
MATERIAL: BRASS		SCALE: 5:1	
PART NO: 61252-1		SHEET: 1 OF 1	

REV	DATE	DESCRIPTION	BY	CHK	APP
CM	53				
REACT & REDNN PER EC 0730-071-96					
C					

1. WIRE RANGE, 12-10 (3-6mm²) AWG
INSULATION RANGE, .185 MAX.



SECTION A-A
SCALE 10:1

SECTION B-B
SCALE 10:1

		IN		MM	
.050	1.27	.157	3.99	.230	5.84
.049	1.09	.156	3.96	.215	5.46
.035	0.89	.155	3.94	.209	5.31
.018	0.46	.154	3.91	.185	4.70
.015	0.38	.135	3.43	.175	4.45
.005	0.13	.063	1.60	.160	4.06
IN	MM	IN	MM	IN	MM

METRIC

TIN	.018 BRASS	MATERIAL	61253-1
FINISH		PART NO	
THIS DRAWING IS A CONTROLLED DOCUMENT.			
REV	DATE	DESCRIPTION	BY
CM	53		
REACT & REDNN PER EC 0730-071-96			
C			
AMP Incorporated Harrisburg, PA 17105-3608			
PIN, LOOSE PIECE, .156 MATE-N-LOK™			
SIZE	A2.00779	CAGE CODE	C-61253
SCALE	5:1	REV	1
CUSTOMER DRAWING			

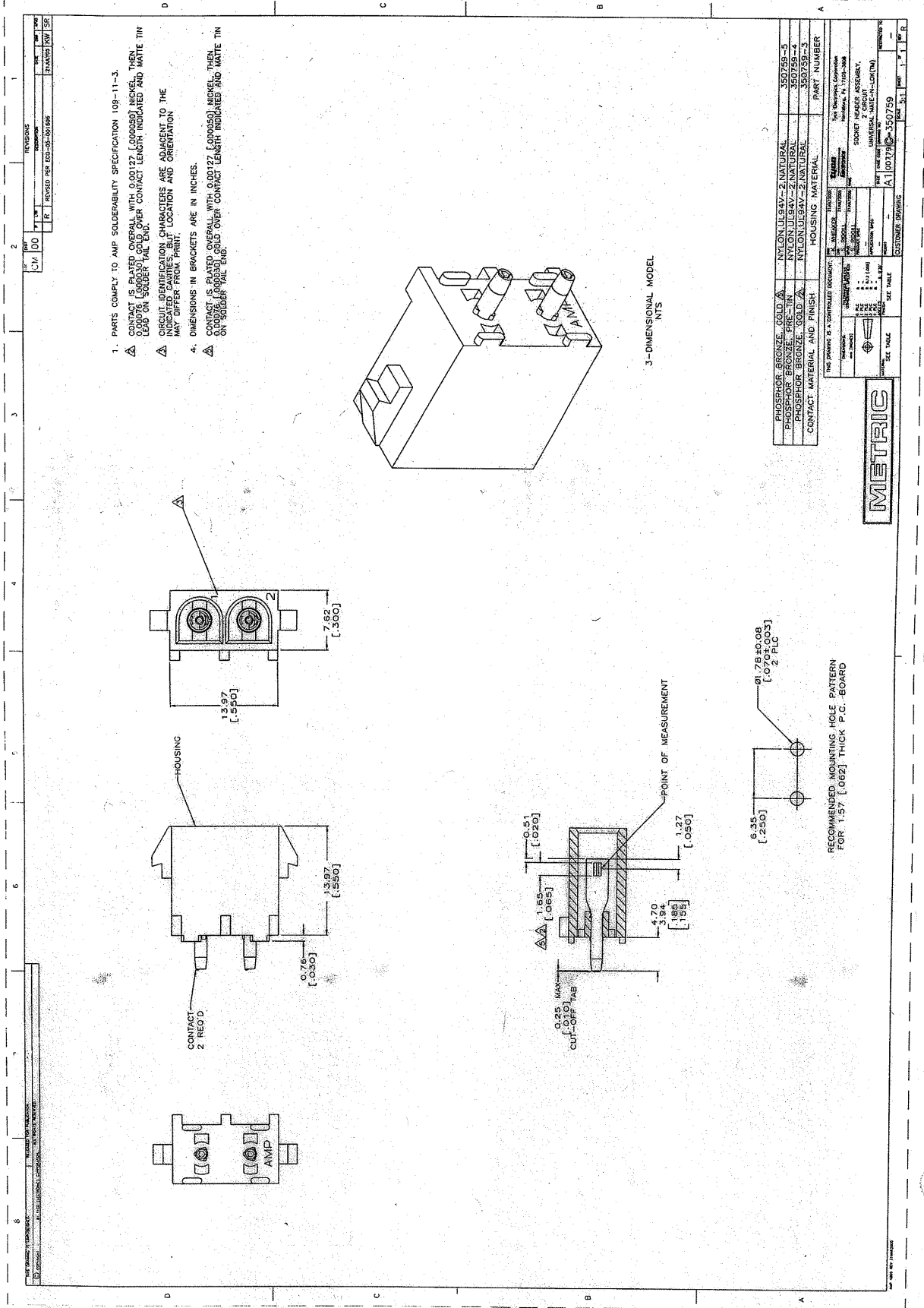
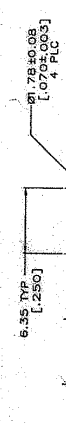
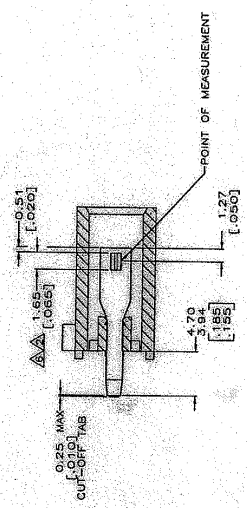
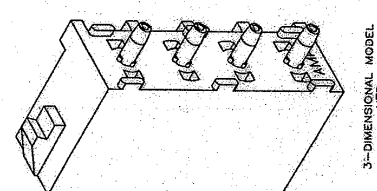
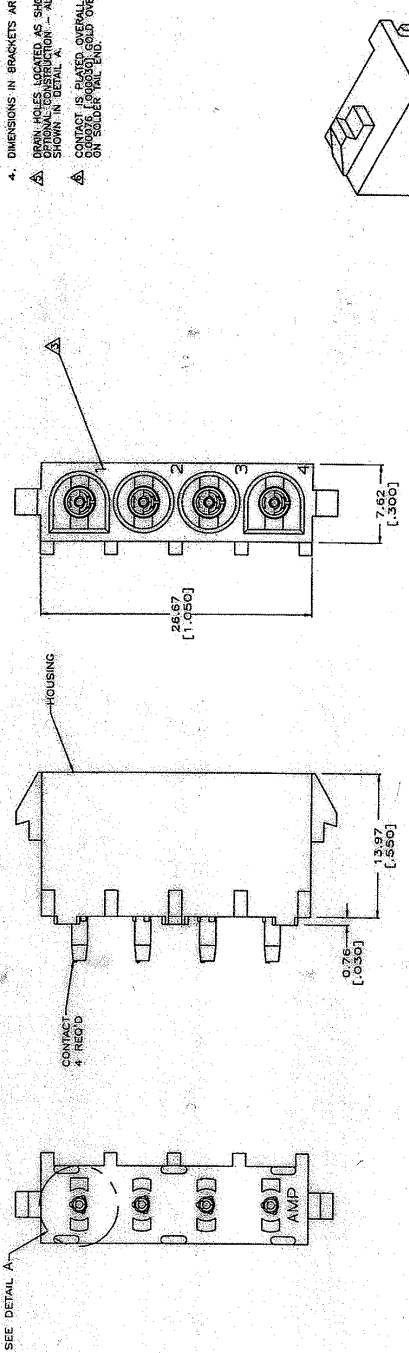
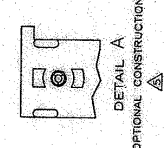


FIG 317
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. CONTACT IS PLATED OVERSHELL WITH 0.00172 (0.00050) INCHES THICK LEAD ON SOLDER TAIL END. LEAD OVER CONTACT LENGTH INDICATED AND WASTE TIN MAY DIFFER FROM PRINT.
3. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE CONTACT. LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
4. DIMENSIONS IN BRACKETS ARE IN INCHES.
5. DRAIN HOLES LOCATED 90° AS SHOWN IN DETAIL A.
6. SPECIAL CONSTRUCTION -- ALL DRAIN HOLES LOCATED 90° AS SHOWN IN DETAIL A.
7. CONTACT IS PLATED OVERSHELL WITH 0.00172 (0.00050) INCHES THICK LEAD ON SOLDER TAIL END. LEAD OVER CONTACT LENGTH INDICATED AND WASTE TIN ON SOLDER TAIL END.



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 [0.062] THICK P.C. BOARD



PHOSPHOR BRONZE - GOLD	NYLON UL94V-2 NATURAL	350761-5
PHOSPHOR BRONZE - PRE-TIN	NYLON UL94V-2 NATURAL	350761-4
PHOSPHOR BRONZE - GOLD	NYLON UL94V-2 NATURAL	350761-3
CONTACT MATERIAL AND FINISH		PART NUMBER
HOUSING MATERIAL		
THIS DRAWING IS A CONTROLLED DOCUMENT.		
DESIGNER	DATE	SCALE
CHECKED	DATE	SCALE
APPROVED	DATE	SCALE
TYPE: DRAWING		
PROJECT: SOCKET HEADER ASSEMBLY		
DRAWING NO: 350761		
REV: 1		
REV: 2		
REV: 3		
REV: 4		
REV: 5		
REV: 6		
REV: 7		
REV: 8		
REV: 9		
REV: 10		



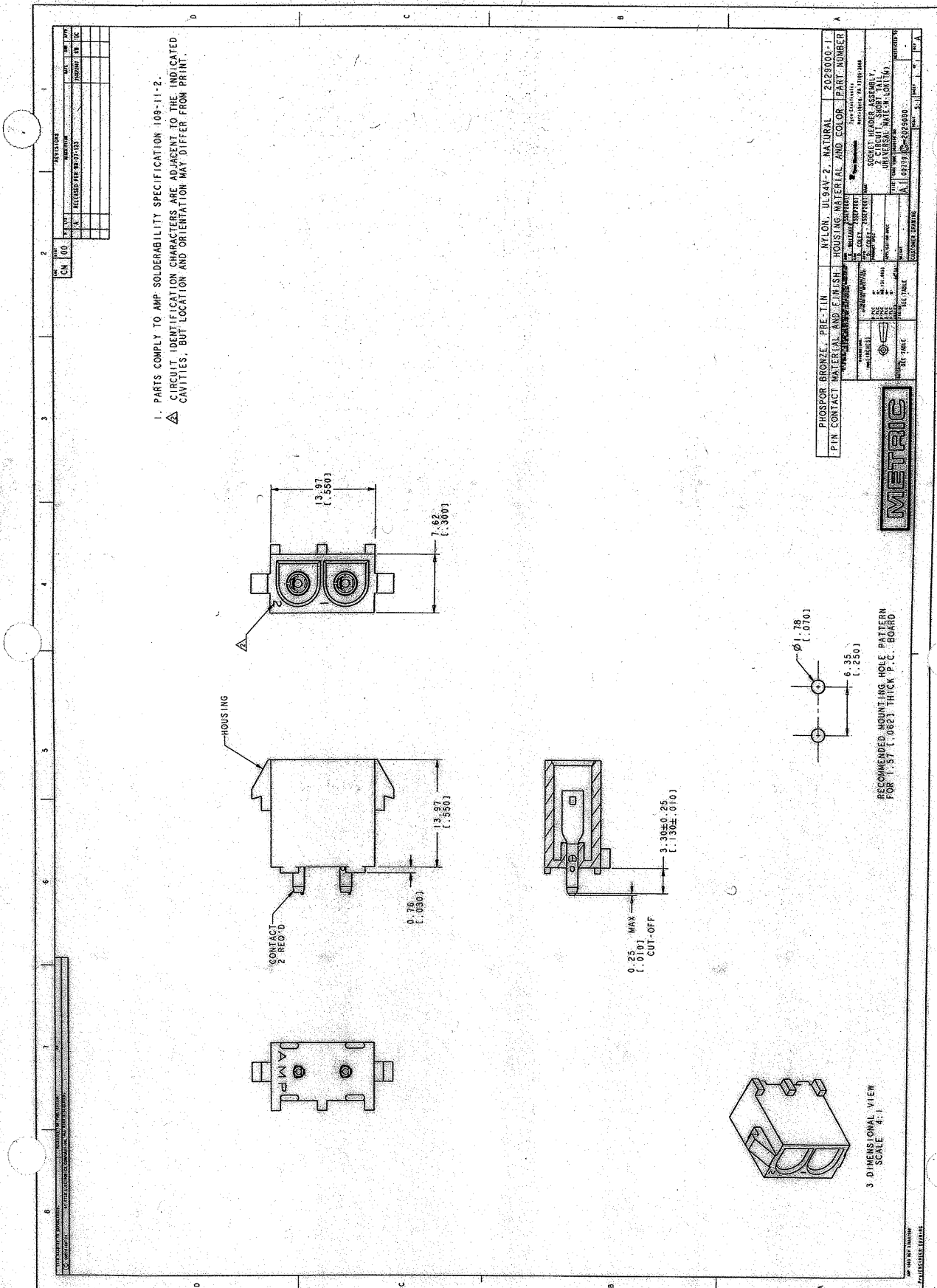
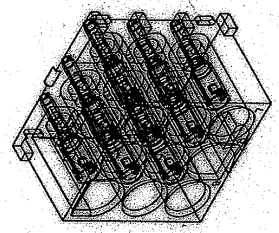
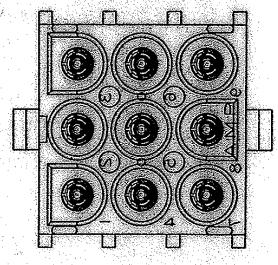
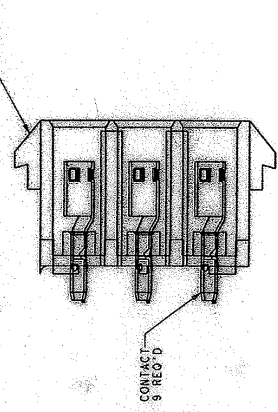
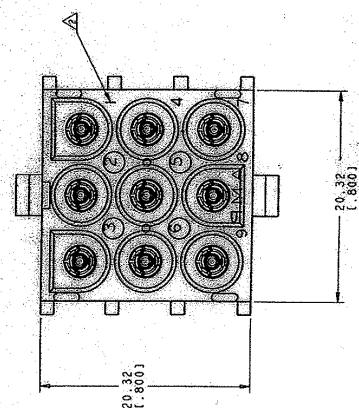


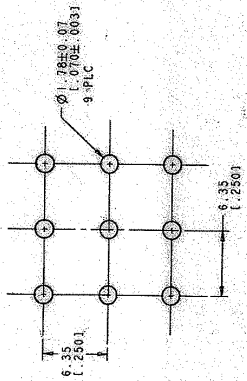
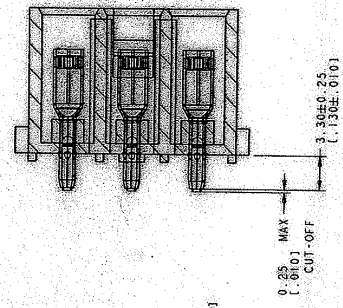
FIG 323
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549

REV	DATE	BY	CHK	APP
1				
2				
3				
4				
5				
6				
7				
8				

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-111-2.
 2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.

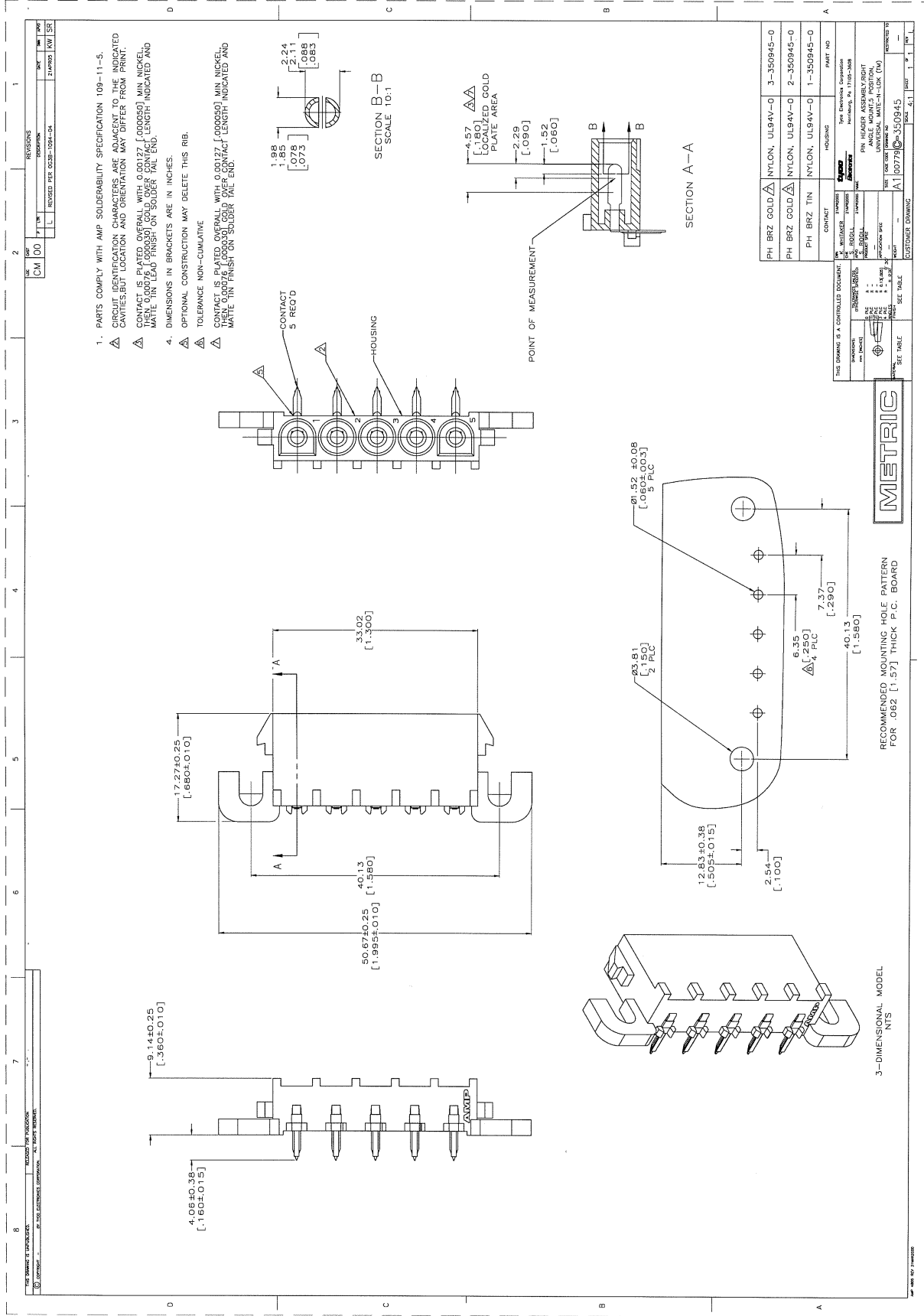


3 DIMENSIONAL MODEL
SCALE 4:1



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 (±.062) THICK P.C. BOARD

PHOSFOR BRONZE, PRE-TIN	NYLON, UL94V-2, NATURAL	2029002-1
PIN CONTACT MATERIAL AND FINISH HOUSING MATERIAL AND COLOR PART NUMBER		
METRIC		
NATIONAL PRODUCT NUMBER: 2029002-1 MANUFACTURER: AMP DATE: 11-84 PART NUMBER: 2029002-1 SOCKET HEADER ASSEMBLY 9 CIRCULAR SOCKET TAIL 9 CIRCULAR SOCKET TAIL DATE: 11-84 PART NUMBER: 2029002-1 CUSTOMER DRAWING: 00713-2029002		



1. PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5.
- △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADVISORY TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- △ CONTACT IS PLATED OVERALL WITH 0.00127 (0.00050) MIN. NICKEL THEN 0.00076 (0.00030) GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN LEAD FINISH ON SOLDER TAIL END.
4. DIMENSIONS IN BRACKETS ARE IN INCHES.
- △ OPTIONAL CONSTRUCTION MAY DELETE THIS RIB.
- △ TOLERANCE NON-CUMULATIVE
- △ CONTACT IS PLATED OVERALL WITH 0.00127 (0.00050) MIN. NICKEL AND MATTE TIN FINISH ON SOLDER TAIL END.



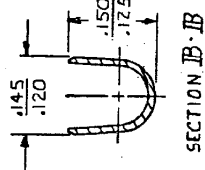
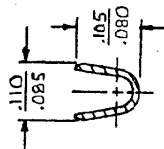
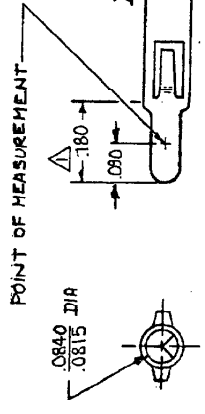
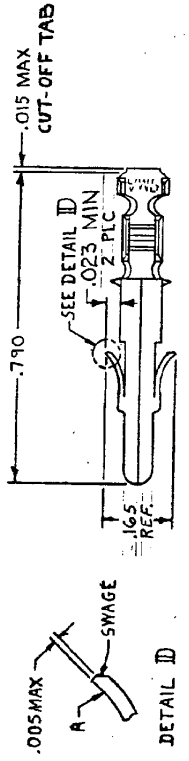
RECOMMENDED MOUNTING HOLE PATTERN FOR .082 [1.57] THICK P.C. BOARD

3-DIMENSIONAL MODEL NTS

FIG 326
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

95 DRAWING MADE IN THIRD ANGLE PROJECTION

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1		2		3		4		5	
LOC	CM	REV	DESCRIPTION	DATE	APPROVED	ZONE	LTR	REV	DESCRIPTION
1	CM								
		G	REDRAWN W/D CHANGE	M-6457	6-5-81				MSF/A/A
		H	REVISED	M-7350	9-2-81				MSF/A/A
		J	REVISED	AG 57	9-2-81				MSF/A/A
		U1	RESTORED		9-14-81				MSF/A/A
		K	REVISED PER CM-172B		9-6-88				PH 1B
		L	REVISED PER CM-3286		2-7-91				RS
		M	REV PER EC-0730-3607-91		1-7-94				RV RS
		N	REV PER EC-0730-0156-94		8-24-94				RV RS

▲ PLATED WITH .000030 GOLD, OVER .000050 NICKEL UNDER PLATE.
 ▲ PLATED INTERNALLY WITH .000030 GOLD.

GOLD	▲ .012 BARS	350690-7
PRE-TIN	.012 PH. BRZ.	350690-3
GOLD	▲ .012 BARS	350690-2
PRE-TIN		350690-1
FINISH	MATERIAL	PART NO

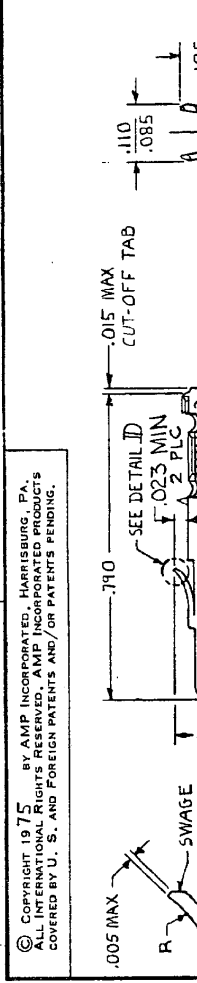
CONTRACT NO		AMP INCORPORATED	
OR M. FEHER 5-6-81		Harrisburg, Pa.	
CHKD BY S. Hilde 4/9/81		NAME	
APPRD BY R. B. ... 5-10-81		PIN, (LOOSE PIECE)	
APPRD		UNIVERSAL MATE-N-LOK	
DSGN APPD		SIZE	
OTHER APPD		B 00779	
		DRAWING NO	
		350690	
		SCALE 4-1	
		SHEET	
		4-1	

AMP 1470-15 REV 8-79

FIG 327
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549

1 Loc CM DIST 53

REVISIONS					
D. F.	ZONE	LTR	DESCRIPTION	DATE	APPROVED
✓		D	REDRAWN & UPDATED	M-6457	6-8-81 M/SF/SH
✓		E	REVISED	M-7350	7-25-81 M/SF/SH
✓		F	REVISED	AG 57	10/21/83 M/SF/SH
✓		F1	RESTORED		4/23/85 M/C/B
✓		G	REVISED PER CM-172B	9-6-88	DA/TP
✓		H	REV PER EC 0730-3607-91	1-7-99	RV/R5



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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ±.015 ANGLES ±

WIRE RANGE 24-18 AVG

INSULATION RANGE .100 DIA MAX X

CONTRACT NO. AMP INCORPORATED Harrisburg, Pa.

NAME SPLIT PIN, (LOOSE PIECE) UNIVERSAL MATE-N-LOK

SIZE CODE IDENT NO. B 00779 DRAWING NO. 350706

SCALE 4-1 SHEET

CUSTOMER DRAWING

AMP 1470-15 REV 8-79

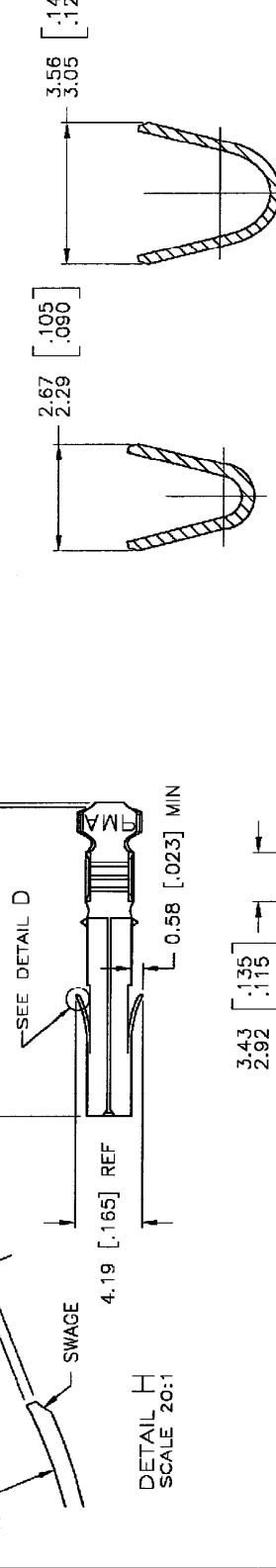
PLATED WITH .00030 GOLD, OVER .000050 NICKEL UNDER PLATE.

PLATED INTERNALLY WITH .00030 GOLD.

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 REVISIONS

REV	DATE	BY	CHK	APP'D
1	14MAR2007	KW	DS	

LOC	DIST	REV	DESCRIPTION
CM	00	G1	REVISED PERIOD-07-000530



POINT OF MEASUREMENT

LOCALIZED GOLD PLATE AREA

0.00076 [-.000030] THICK GOLD OVER NICKEL ON INSIDE OF RECEPTACLE AND WIRE BARREL AND REMAINDER OF CONTACT IS NICKEL PLATED.

2. 24 -18 AWG.

3. 2.54 [-.100] DIA MAX.

SECTION A-A SCALE 10:1

SECTION B-B SCALE 10:1

GOLD	0.3 [.012]	640347-2
PRE-TIN	0.3 [.012]	640347-1
FINISH	MATERIAL	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

OWN: K. WHITAKER 14MAR2007 Tyco Electronics Corporation
 HORRISBURG, PA 17105-3608

CHK: D. COLEY 14MAR2007
 APP'D: D. COLEY 14MAR2007
 PRODUCT SPEC: SOCKET, MATE-N-LOK(TM), LOOSE PIECE

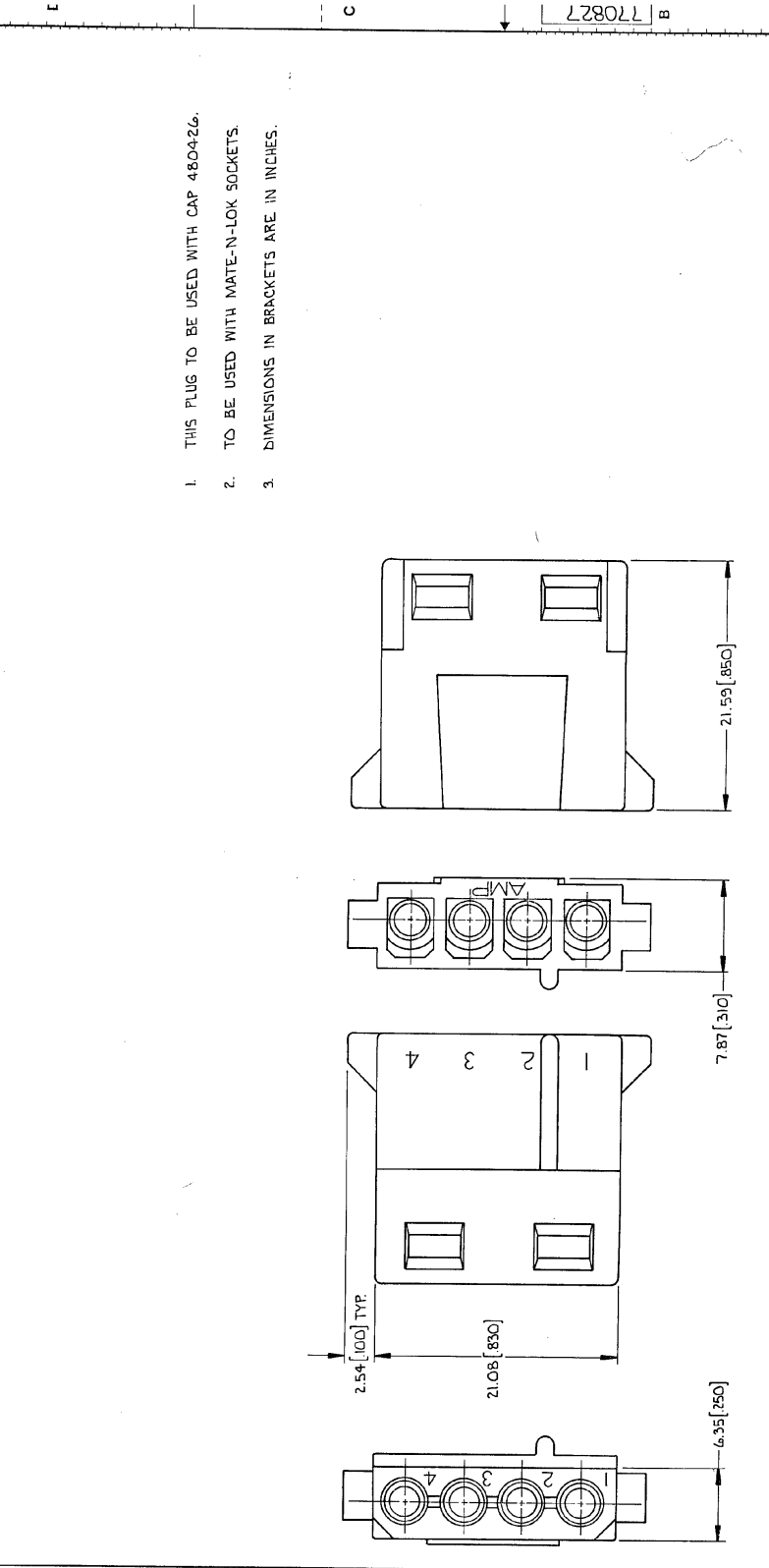
APPROVALS UNLESS OTHERWISE SPECIFIED:
 0 P/LC ± .010
 1 P/LC ± .015
 2 P/LC ± 0.13(.005)
 3 P/LC ± .030
 4 P/LC ± .030

FINISH: -
 MATERIAL: -
 WEIGHT: -
 SIZE: CASE CODE DRAWING NO: A300779 ©=640347
 RESTRICTED TO: -

CUSTOMER DRAWING
 SCALE: 4:1 SHEET: 1 OF 1 REV: G1

AMP 1470-18 REV 31MAR2000

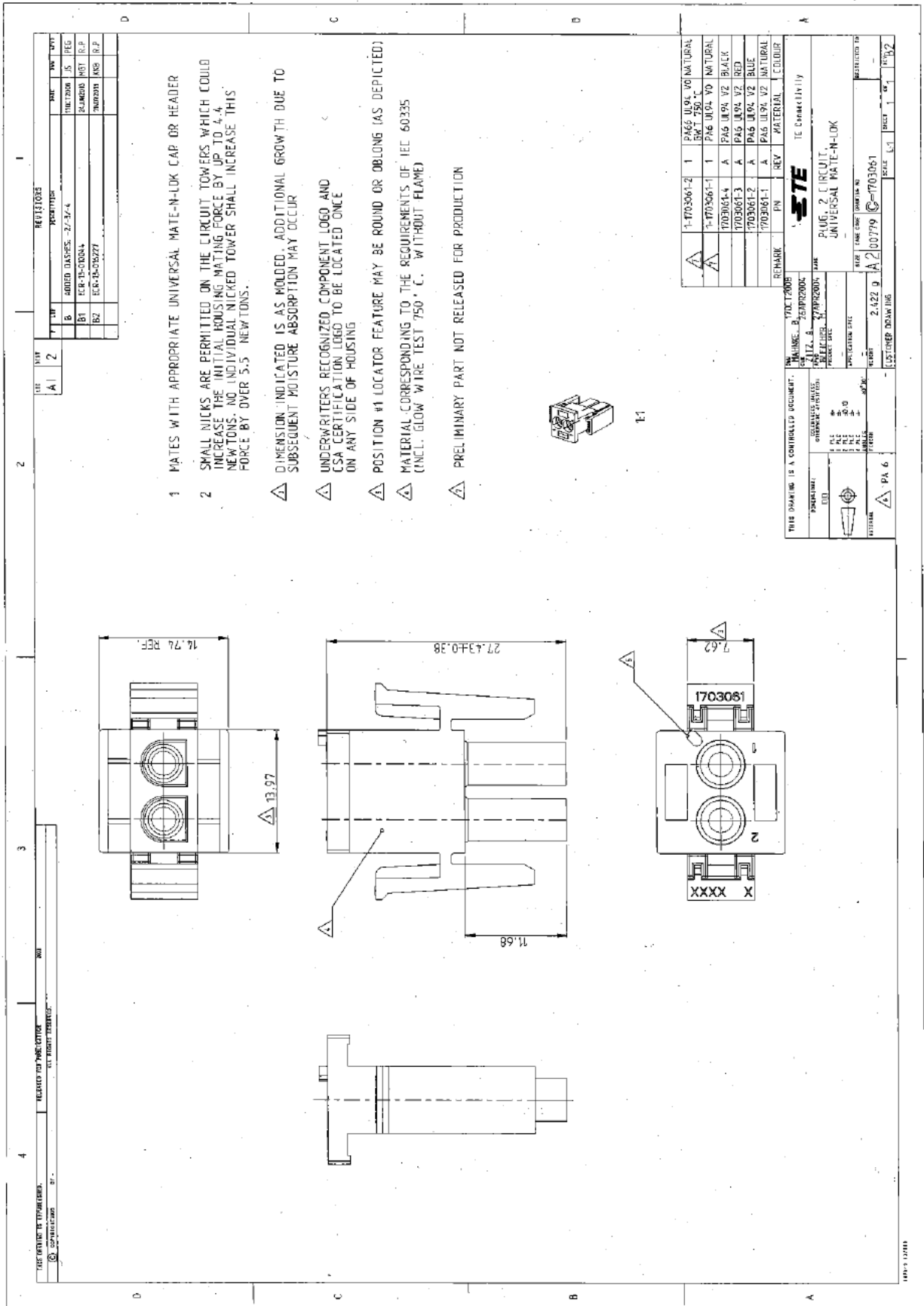
4		DRAWING MADE IN THIRD ANGLE PROJECTION		1	
THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION BY AMP INCORPORATED, HARTFORD, CT. ALL UNPUBLISHED RIGHTS RESERVED. AMP PRODUCTS MAY BE COVERED BY U.S. AND FOREIGN PATENTS AND/OR PATENT PENDING.		CM 53		770827	
LOC	DIST	ZONE	LTR	DESCRIPTION	DATE
CM	53			RELEASED PER PR CM 90-198	1-18-91
				REV PER EC 0730-0062-95	7/21/95



1. THIS PLUG TO BE USED WITH CAP 480426.
2. TO BE USED WITH MATE-N-LOK SOCKETS.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.

UNLESS OTHERWISE SPECIFIED TOLERANCES ON IN MM		DR P. [Signature] 1-18-91		AMP		AMP INCORPORATED Hartford, Pa. 17105	
2 PL DEC	± 0.38 [0.15]	CHKD	[Signature] 1-18-91	NAME			
3 PL DEC	± 0.38 [0.15]	APPD	[Signature] 1-18-91	PLUG, 4 CIRCUIT, MATE-N-LOK™			
ANGLES	±	APTD	[Signature] 1-18-91	SIZE			
MATERIAL	NYLON, WHITE UL94V-0	PRODUCT SPEC		FSCM NO			
FINISH		APPLICATION SPEC		C 00779			
		WEIGHT		DRAWING NO			
				770827			
				SCALE			
				4:1			
				SHEET			
				1 OF 1			

AMP 1471-2 REV 10-84



REV		DATE		BY		CHK		APP	
A	1								
A	2								

REVISIONS		REVISIONS	
1	ADDED DIMENSIONS: 27.43±0.38	DATE	BY
2	ADDED DIMENSIONS: 13.97	DATE	BY
3	ADDED DIMENSIONS: 14.74 REF	DATE	BY
4	ADDED DIMENSIONS: 11.68	DATE	BY

- 1 MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOK CAP OR HEADER
 - 2 SMALL NICKS ARE PERMITTED ON THE CIRCUIT TOWERS WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 4.4 NEWTONS. NO INDIVIDUAL NICKED TOWER SHALL INCREASE THIS FORCE BY OVER 5.5 NEWTONS.
- △ DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR
 - △ UNDERWRITERS RECOGNIZED COMPONENT LOGO AND CSA CERTIFICATION LOGO TO BE LOCATED ONCE ON ANY SIDE OF HOUSING
 - △ POSITION #1 LOCATOR FEATURE MAY BE ROUND OR OBLONG (AS DEPICTED)
 - △ MATERIAL CORRESPONDING TO THE REQUIREMENTS OF IEC 60335 (INCL. GLOW WIRE TEST 750 °C, WITHOUT FLAME)
 - △ PRELIMINARY PART NOT RELEASED FOR PRODUCTION



E1

REV	DATE	BY	CHK	APP
1	1703061-2			
2	1703061-1			
3	1703061-4			
4	1703061-3			
5	1703061-2			
6	1703061-1			
7	1703061-1			

REMARK	PN	REV	MATERIAL	COLOR
1	PA66 UL94 V0 NATURAL			
2	PA6 UL94 V0 NATURAL			
3	PA6 UL94 V2 BLACK			
4	PA6 UL94 V2 RED			
5	PA6 UL94 V2 BLUE			
6	PA6 UL94 V2 NATURAL			
7	MATERIAL			

THIS DRAWING IS A CONTROLLED DOCUMENT.

DATE: 2-12-2009

REV: 9

PROJECT: 7005209

DESCRIPTION: PLUG, 2 CIRCUIT, UNIVERSAL MATE-N-LOK

SCALE: 1:1

DATE: 2-12-2009

REV: 9

PROJECT: 7005209

DESCRIPTION: PLUG, 2 CIRCUIT, UNIVERSAL MATE-N-LOK

SCALE: 1:1

DATE: 2-12-2009

REV: 9

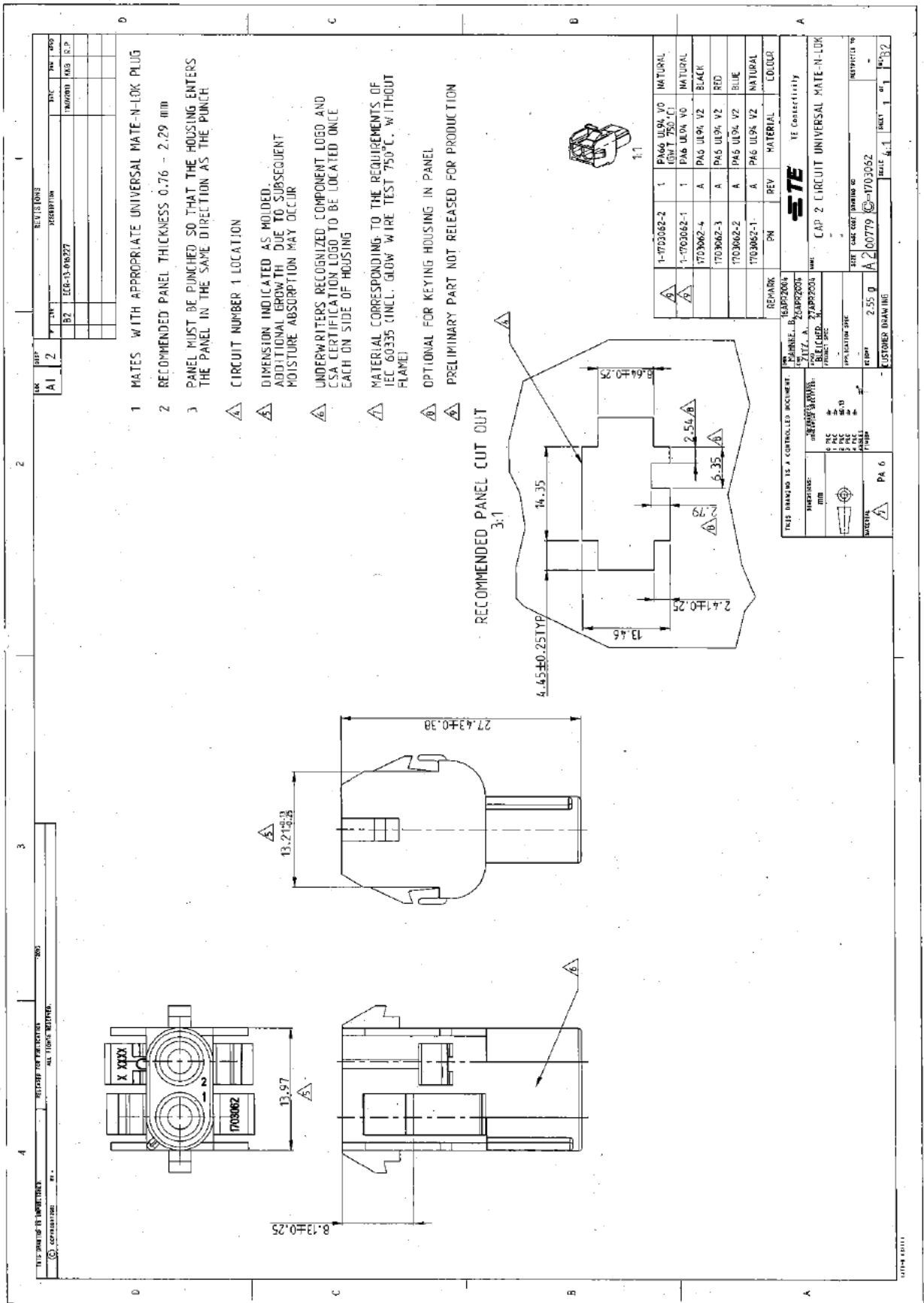
PROJECT: 7005209

DESCRIPTION: PLUG, 2 CIRCUIT, UNIVERSAL MATE-N-LOK

SCALE: 1:1

1000-12700

FIG 331
 Project 7005209
 Report 1030930
 Contract 164196
 LR 7189-549



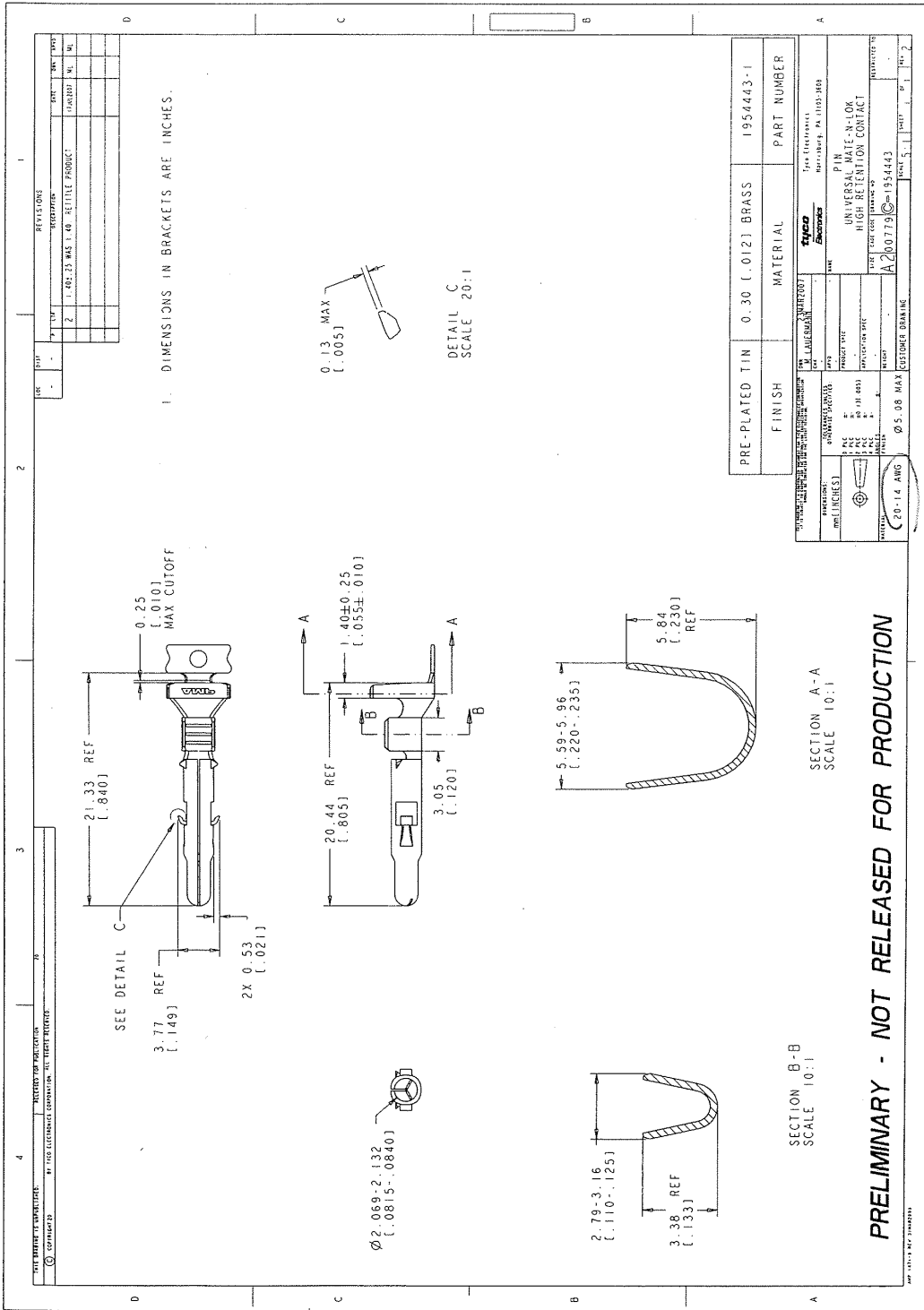


FIG 333
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

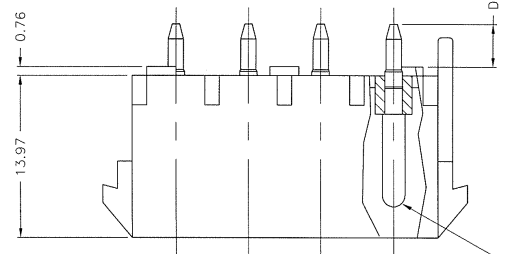
LOC	REV	DATE	BY	CHKD	APP'D
FT	0				

REV	DATE	DESCRIPTION
D	12/14/05	REVISED PER 800-05-13915

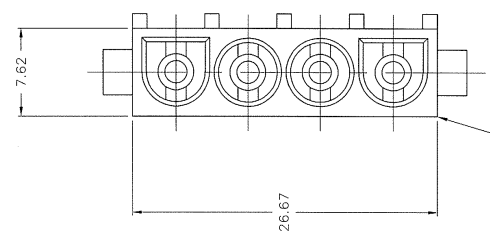
REV	DATE	DESCRIPTION
SS	05/12/05	SS
GS		

NOTES:

1. MATES WITH MATE-N-LOK II PLUG CONNECTOR USING PN 194211-1 OR 194213-1 SOCKET CONTACTS.
2. PIN CONTACTS ARE LUBRICATED.
3. ALL DIMENSIONS ARE REFERENCE ONLY EXCEPT PC BOARD LAYOUT.



CONTACT
MAT'L: COPPER ALLOY
FINISH: 5.8um MIN SILVER
OVER 1.01um MIN NICKEL



HOUSING
MAT'L: NYLON 94V-0

**RECOMMENDED LAYOUT FOR
1.57 THICK PC BOARD**

4.32	194234-2
3.68	194234-1

DIM. A	PART NO.
--------	----------

THIS DRAWING IS A CONTROLLED DOCUMENT.	
DATE	3/7/99/97
REV	
DESCRIPTION	TYPE Electronics Corporation Harrisburg, PA 17105-8008
OPERATION	WIRE
PRODUCT SPEC	HIGH CURRENT HEADER ASSY, VERTICAL PIN, LUBRICATED, MATE-N-LOK II, 4 CIRCUIT
APPLICATION SPEC	
WEIGHT	SIZE CASE CODE DRAWING NO
FINISH	AZ 00779 C=194234
CUSTOMER DRAWING	
SCALE	4:1
REV	1 of 1

AUP 1471-9 REV 3/14/00/00

REV	DATE	BY	APP
1	9/22/03	SS	LS

REV	DESCRIPTION
1	REVISED PER 033B-0989-03

REV	DATE	BY	APP
1	9/22/03	SS	LS

REV	DESCRIPTION
1	REVISED PER 033B-0989-03

REV	DATE	BY	APP
1	9/22/03	SS	LS

REV	DESCRIPTION
1	REVISED PER 033B-0989-03

REV	DATE	BY	APP
1	9/22/03	SS	LS

REV	DESCRIPTION
1	REVISED PER 033B-0989-03

REV	DATE	BY	APP
1	9/22/03	SS	LS

REV	DESCRIPTION
1	REVISED PER 033B-0989-03

REV	DATE	BY	APP
1	9/22/03	SS	LS

REV	DESCRIPTION
1	REVISED PER 033B-0989-03

REV	DATE	BY	APP
1	9/22/03	SS	LS

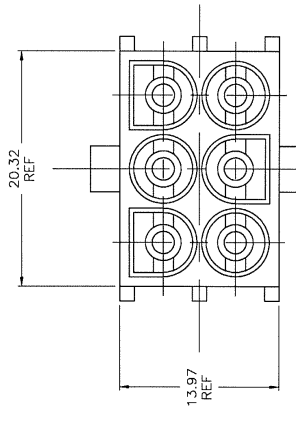
REV	DESCRIPTION
1	REVISED PER 033B-0989-03

REV	DATE	BY	APP
1	9/22/03	SS	LS

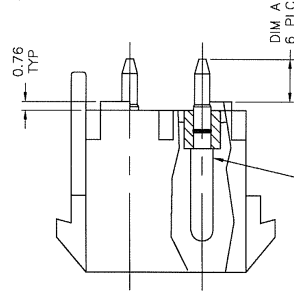
REV	DESCRIPTION
1	REVISED PER 033B-0989-03

NOTES:

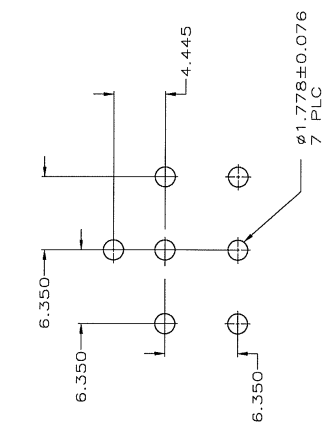
- MATES WITH MATE-N-LOK II PLUG CONNECTOR USING PN 194211-1 OR 194213-1 SOCKET CONTACTS.
- PIN CONTACTS ARE LUBRICATED.
- ALL DIMENSIONS ARE REFERENCE ONLY EXCEPT PC LAYOUT. PRELIMINARY PART NUMBER.



HOUSING
MAT'L: NYLON 94V-0



CONTACT
MAT'L: COPPER ALLOY
FINISH: 5.8um MIN SILVER
OVER 1.01um MIN NICKEL



RECOMMENDED LAYOUT FOR
1.57 THICK PC BOARD

4.32	194260-2
3.68	194260-1

DIM A	PART NO.
4.32	194260-2

DIM A	PART NO.
3.68	194260-1

DIM A	PART NO.
4.32	194260-2

DIM A	PART NO.
3.68	194260-1

THIS DRAWING IS A CONTROLLED DOCUMENT.

DATE: 04/02/97

DESIGNER: J. N. ENLICH

PRODUCT SPEC: HIGH CURRENT VERT. PIN HEADER ASSY

APPLICATION SPEC: MATE-N-LOK II, B CIRCUIT, LUBRICATED

WEIGHT: 0.0000

CUSTOMER DRAWING: 194260

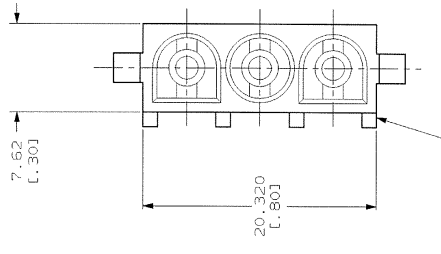
SCALE: 4:1

RESTRICTED TO: 1 OF 1

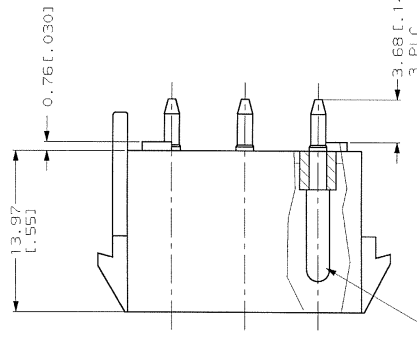
FIG 337
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

THIS DRAWING IS CONTROLLED BY AMP INCORPORATED. ALL RIGHTS RESERVED.		REVISIONS	
LOC	REV	DATE	BY
CH 11	0	RELEASED	SCHEIDT DMP
	A	EC OB20-0270-98	FOR RELEASE RHP RAR
	B	EC OB20-1083-98	FOR RELEASE RHP RAR

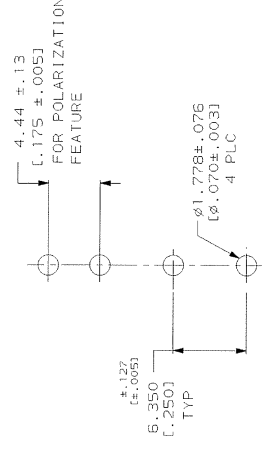
1. MATES WITH MATE-N-LOK 11 PLUG CONNECTOR USING P/N 194211-1 OR 194213-1 SOCKET CONTACTS.
2. ALL DIMENSIONS ARE REFERENCE ONLY EXCEPT P.C. LAYOUT.
3. PIN CONTACTS ARE LUBRICATED.



HOUSING
MAT'L: NYLON 94V-0



CONTACT
MAT'L: COPPER ALLOY
FINISH: 5.8µm (200µIN) MIN SILVER
OVER 1.01 µm (40 µIN) MIN NICKEL



Ø1.778±.076
L.070±.003
4 PLC

RECOMMENDED LAYOUT FOR
1.57 [.062] THICK P.C. BOARD

THIS DRAWING IS A CONTROLLED DOCUMENT.		DATE	BY	SCALE
194261	11	1998	AMP	1:1
DRAWING		CUSTOMER DRAWING		
MATERIAL		DRAWING NO.		
FINISH		SIZE		
MATERIAL		CAGE CODE		
FINISH		194261		
MATERIAL		DATE		
FINISH		SHEET		
MATERIAL		OF		
FINISH		REV		
MATERIAL		B		

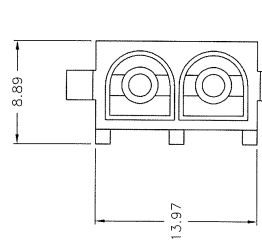
AMP 14719 REV 2/95/95 10/20/14 amp5075 10422222/2014

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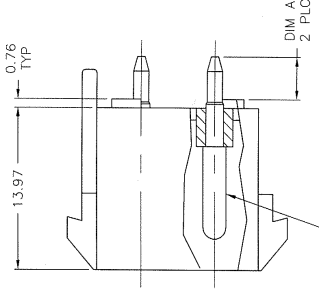
REV	DATE	DESCRIPTION	BY	CHK	APP
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1	12/14/05	REVISED PER ECO-05-13815			

NOTES:

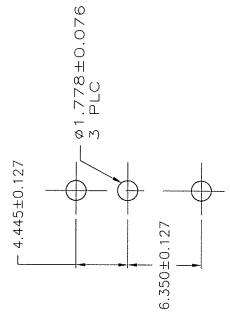
- MATES WITH MATE-N-LOK II PLUG CONNECTOR USING PN 194211-1 OR 194213-1 SOCKET CONTACTS.
- ALL DIMENSIONS ARE REFERENCE ONLY EXCEPT PC LAYOUT.
- PIN CONTACTS ARE LUBRICATED.



HOUSING
 MAT'L: NYLON 94V-0



CONTACT
 MAT'L: COPPER ALLOY
 FINISH: 5um MIN SILVER
 OVER 1um MIN NICKEL



RECOMMENDED LAYOUT FOR
 1.57 THICK PC BOARD

194269

DIMENSIONS		DIM. A		PART NO.	
4.32	194269-2	3.68	194269-1		

REV	DATE	DESCRIPTION	BY	CHK	APP
0					
1	12/14/05	REVISED PER ECO-05-13815			

THIS DRAWING IS A CONTROLLED DOCUMENT:		DATE	BY	APP
DATE	12/14/05	BY		APP

TOLERANCES UNLESS SPECIFIED:		DIMENSIONS		FINISH	
F	FRONT VIEW	F	FRONT VIEW	F	FRONT VIEW
S	SIDE VIEW	S	SIDE VIEW	S	SIDE VIEW
P	PERPENDICULARITY	P	PERPENDICULARITY	P	PERPENDICULARITY
A	ANGULARITY	A	ANGULARITY	A	ANGULARITY
R	RADIUS	R	RADIUS	R	RADIUS
T	TAPER	T	TAPER	T	TAPER

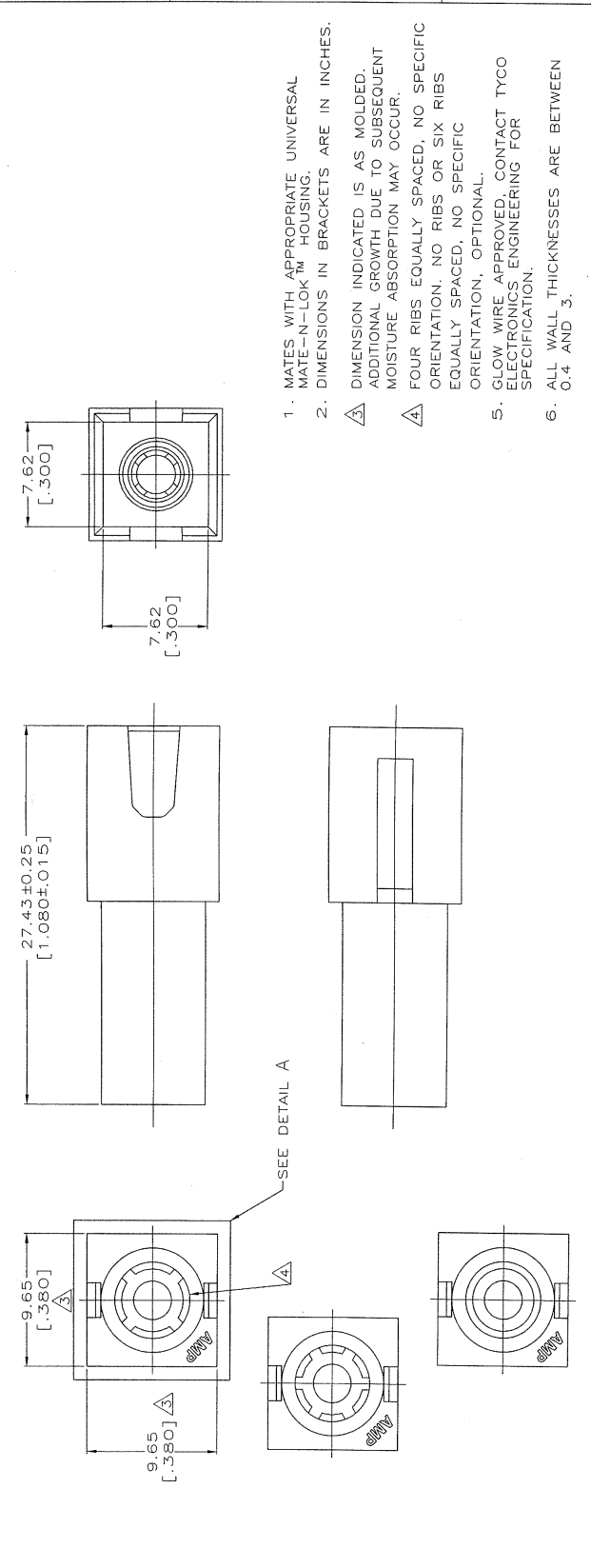
CUSTOMER DRAWING		SCALE	SHEET	1	2	3	4
A2	00779	4:1	1	1			

FIG 339
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

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DATE 12/14/00 BY 105A ELECTRONICS CORP. ALL RIGHTS RESERVED.
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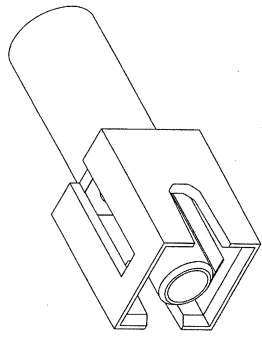
RELEASED FOR PUBLICATION
BY ITSC ELECTRONICS CORPORATION ALL RIGHTS RESERVED.

REV	DATE	BY	CHK'D
CM	0	A	18JUL07
DESCRIPTION	RELEASED PER WS-27-280	KW	DC



1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ HOUSING.
2. DIMENSIONS IN BRACKETS ARE IN INCHES.
3. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
4. FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL.
5. GLOW WIRE APPROVED, CONTACT TYCO ELECTRONICS ENGINEERING FOR SPECIFICATION.
6. ALL WALL THICKNESSES ARE BETWEEN 0.4 AND 3.

DETAIL A
OPTIONAL CONSTRUCTIONS



3-DIMENSIONAL MODEL
NTS

THIS DRAWING IS A CONTROLLED DOCUMENT.	
DESIGNER	DATE
CM	0
CHK'D	DATE
OK	18JUL2007
WHITAKER	18JUL2007
CHK'D	DATE
OK	18JUL2007
COLEY	18JUL2007
PROJ. NO.	1586843
PRODUCT	UNIVERSAL MATE-N-LOK(TM)
APPLICATION SPEC.	CAP-SINGLE CIRCUIT, UNIVERSAL MATE-N-LOK(TM)
PAGE	1 OF 1
SCALE	5:1
SHEET	1 OF 1
RIV	A

CUSTOMER DRAWING

DATE CODE (FORMING NO.) A200779 © 1586843

RESTRICTED TO

THIS DRAWING IS A CONTROLLED DOCUMENT.

DESIGNER

DATE

CHK'D

DATE

OK

18JUL2007

WHITAKER

18JUL2007

CHK'D

DATE

OK

18JUL2007

COLEY

18JUL2007

PROJ. NO.

1586843

PRODUCT

UNIVERSAL MATE-N-LOK(TM)

APPLICATION SPEC.

CAP-SINGLE CIRCUIT, UNIVERSAL MATE-N-LOK(TM)

PAGE

1 OF 1

SCALE

5:1

SHEET

1 OF 1

RIV

A

CUSTOMER DRAWING

DATE CODE (FORMING NO.)

A200779 © 1586843

RESTRICTED TO

TYCO ELECTRONICS CORPORATION
Harrisburg, PA 17105-3508

UNIVERSAL MATE-N-LOK™
NATURAL COLOR PART NO

3-DIMENSIONAL MODEL
NTS

AMP 171-9 REV 2/19/00

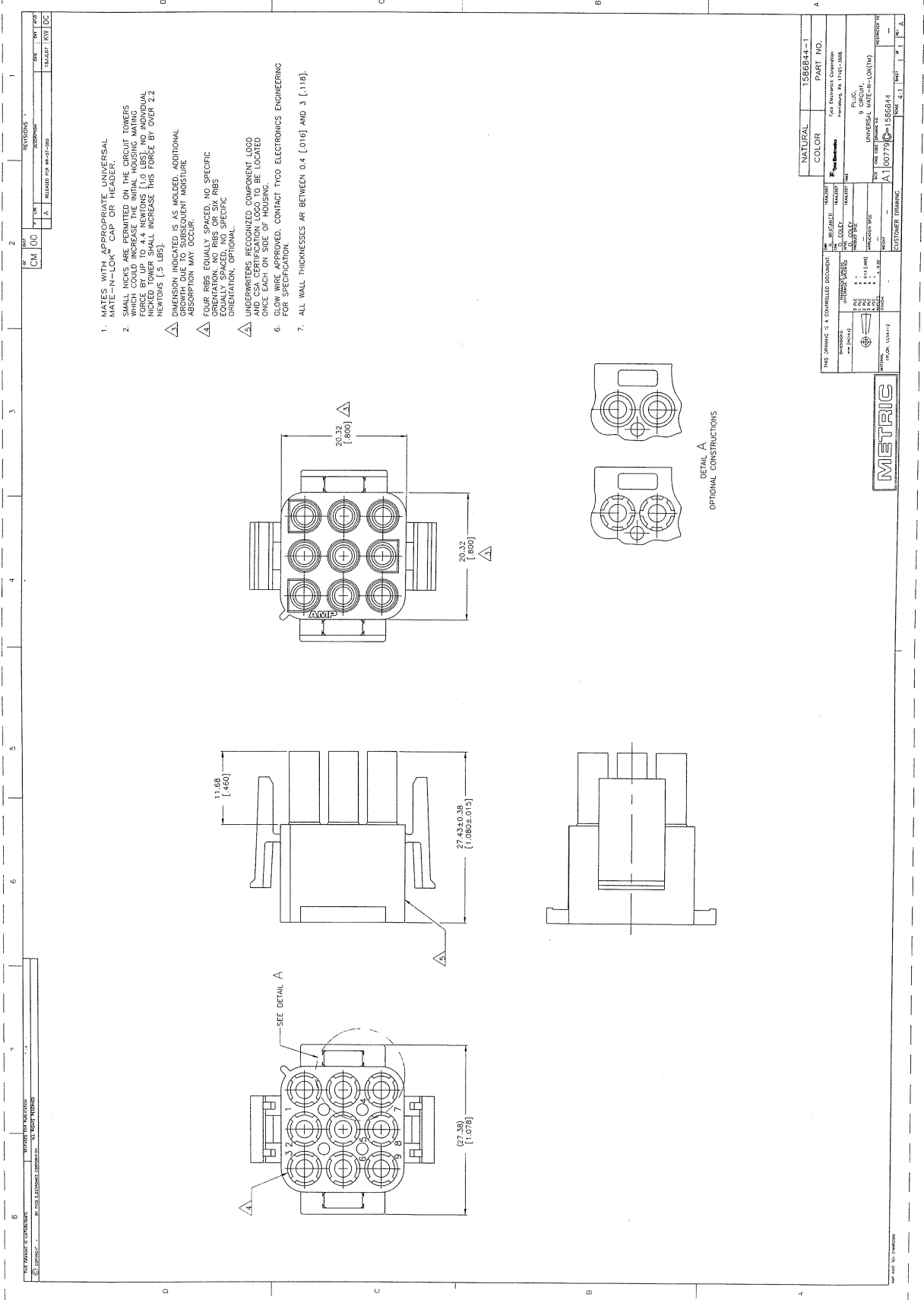
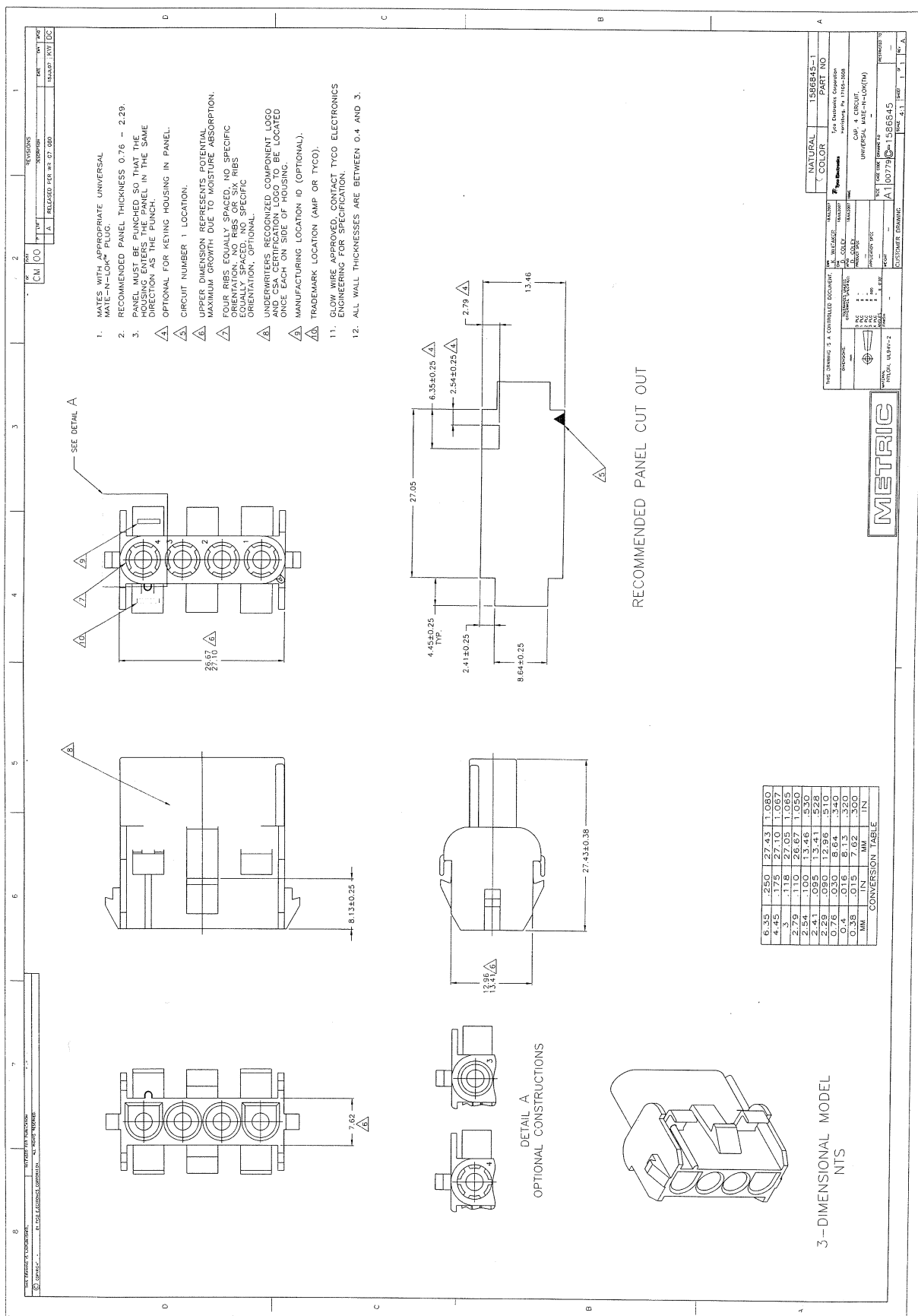


FIG 343
Project 70059209
Report 1030930
Contract 164196
LR 7189-549



1. MATE WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ PLUG.
2. RECOMMENDED PANEL THICKNESS 0.76 - 2.29.
3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- OPTIONAL FOR KEYING HOUSING IN PANEL.
- CIRCUIT NUMBER 1 LOCATION.
- UPPER DIMENSION REPRESENTS POTENTIAL MAXIMUM GROWTH DUE TO MOISTURE ABSORPTION.
- FOR PARTS EQUAL TO OR GREATER THAN THIS SIZE, EQUAL SPACING OF THE HOUSING PINS OR WIRE BONDING PINS IS REQUIRED. NO SPECIFIC ORIENTATION, OPTIONAL.
- UNDERWRITERS RECOGNIZED COMPONENT LOGO AND CSA CERTIFICATION LOGO TO BE LOCATED ONCE EACH ON SIDE OF HOUSING.
- MANUFACTURING LOCATION ID (OPTIONAL).
- TRADEMARK LOCATION (AMP OR TYCO).
11. GLOW WIRE APPROVED. CONTACT TYCO ELECTRONICS ENGINEERING FOR SPECIFICATION.
12. ALL WALL THICKNESSES ARE BETWEEN 0.4 AND 3.

MM	IN	MM	IN
6.35	.250	27.43	1.080
4.45	.175	27.10	1.067
3.0	.118	27.05	1.065
2.54	.100	23.26	0.915
2.54	.100	23.26	0.915
2.41	.095	1.341	.0528
2.29	.090	1.286	.0510
0.76	.030	8.64	.340
0.35	.015	9.142	.360

METRIC

THIS DRAWING IS A CONTROLLED DOCUMENT

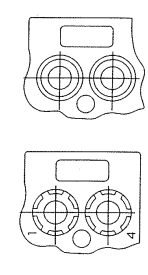
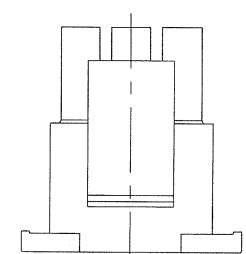
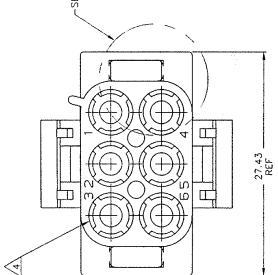
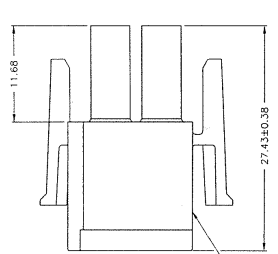
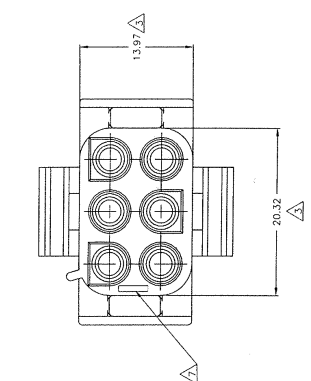
REV. NO. 1
 DATE 01/11/00
 BY CM DOO
 CHECKED BY []
 APPROVED BY []

UNIVERSAL ELECTRONICS CORPORATION
 1586645-1
 PART NO. 1586645-1
 UNIVERSAL MATE-N-LOK™
 CUSTOMER DRAWING
 1007780
 1586645

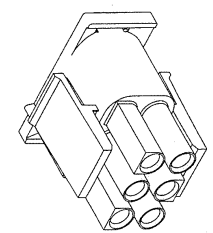
FIG 344
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

REV	BY	DATE	DESCRIPTION
1	CM	10/20/00	INITIAL DESIGN
2	DC	11/05/00	REVISED TO SHOW DIMENSIONS
3	DC	11/05/00	REVISED TO SHOW DIMENSIONS
4	DC	11/05/00	REVISED TO SHOW DIMENSIONS
5	DC	11/05/00	REVISED TO SHOW DIMENSIONS
6	DC	11/05/00	REVISED TO SHOW DIMENSIONS
7	DC	11/05/00	REVISED TO SHOW DIMENSIONS
8	DC	11/05/00	REVISED TO SHOW DIMENSIONS

- MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ CAP OR HEADER.
- SMALL NICKS ARE PERMITTED ON THE CIRCUIT BOARD SURFACE, BUT SHALL NOT AFFECT HOUSING MATING FORCE BY UP TO 4.4 NEWTONS (1.0 LBS). NO INDIVIDUAL NICKED TOWER SHALL INCREASE THIS FORCE BY OVER 2.2 NEWTONS (0.5 LBS).
- ALL WALL THICKNESSES ARE BETWEEN 0.4, AND 3.0.
 - △ FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, NO RIBS OR SIX RIBS ORIENTATION, OPTIONAL.
 - △ UNDERWRITER RECOGNIZED COMPONENT LOGO AND CSA CERTIFICATION LOGO TO BE LOCATED ONCE EACH ON SIDE OF HOUSING.
 - △ TRADEMARK LOCATION (AMP OR TYCO).
- GLON MARK APPROVED. CONTACT TYCO ELECTRONIC ENGINEERING FOR SPECIFICATION.



DETAIL A
OPTIONAL CONSTRUCTIONS

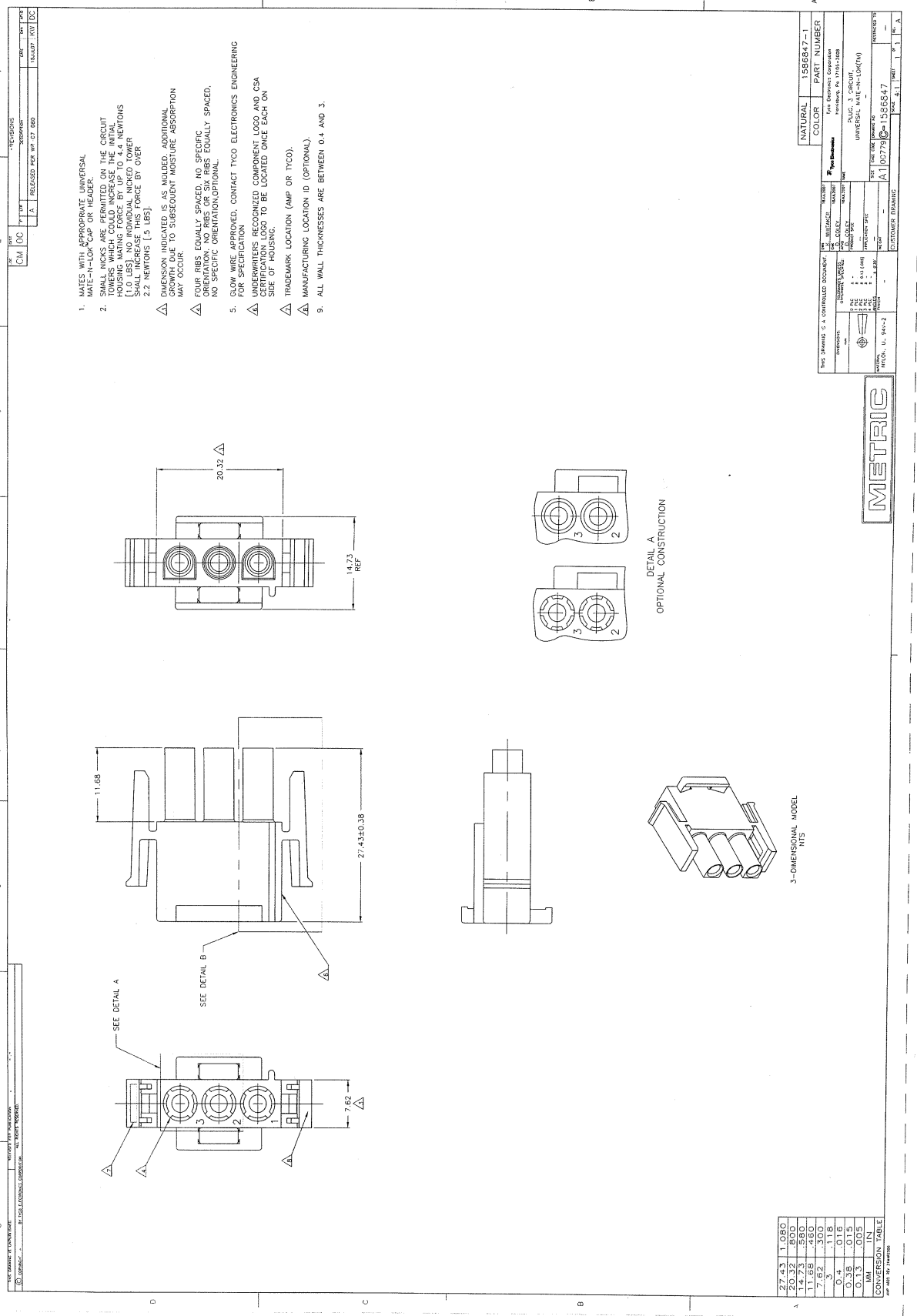


3-DIMENSIONAL MODEL
NTS

MM	IN
27.43	1.080
20.32	.800
13.97	.550
11.68	.460
4.0	.157
3.0	.118
2.0	.079
1.5	.059
1.0	.039
0.5	.019
0.4	.016

STANDARD DOCUMENT	UNLESS OTHERWISE SPECIFIED	PART NUMBER	156846-1
DATE	REV	ISSUE	DATE
10/20/00	1	1	10/20/00
11/05/00	2	1	11/05/00
11/05/00	3	1	11/05/00
11/05/00	4	1	11/05/00
11/05/00	5	1	11/05/00
11/05/00	6	1	11/05/00
11/05/00	7	1	11/05/00
11/05/00	8	1	11/05/00





1. MATE WITH APPROPRIATE UNIVERSAL HOUSING. SMALL RIBS ARE PERMITTED ON THE CIRCUIT TOWERS WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 4.4 NEWTONS (1.0 LBS). IF THIS OCCURS, THE USER SHALL INCREASE THIS FORCE BY OVER 2.2 NEWTONS (.5 LBS).
2. DIMENSION INDICATED IS AS MOUNTED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
3. FOUR RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. OPTIONAL.
4. GLOW WIRE APPROVED. CONTACT TYCO ELECTRONICS ENGINEERING FOR SPECIFICATION.
5. UNDERWRITERS RECOGNIZED COMPONENT LOGO AND CSA MARKING SHOULD BE LOCATED ONCE EACH ON SIDE OF HOUSING.
6. TRADEMARK LOCATION (AMP OR TYCO).
7. MANUFACTURING LOCATION ID (OPTIONAL).
8. ALL WALL THICKNESSES ARE BETWEEN 0.4 AND 3.

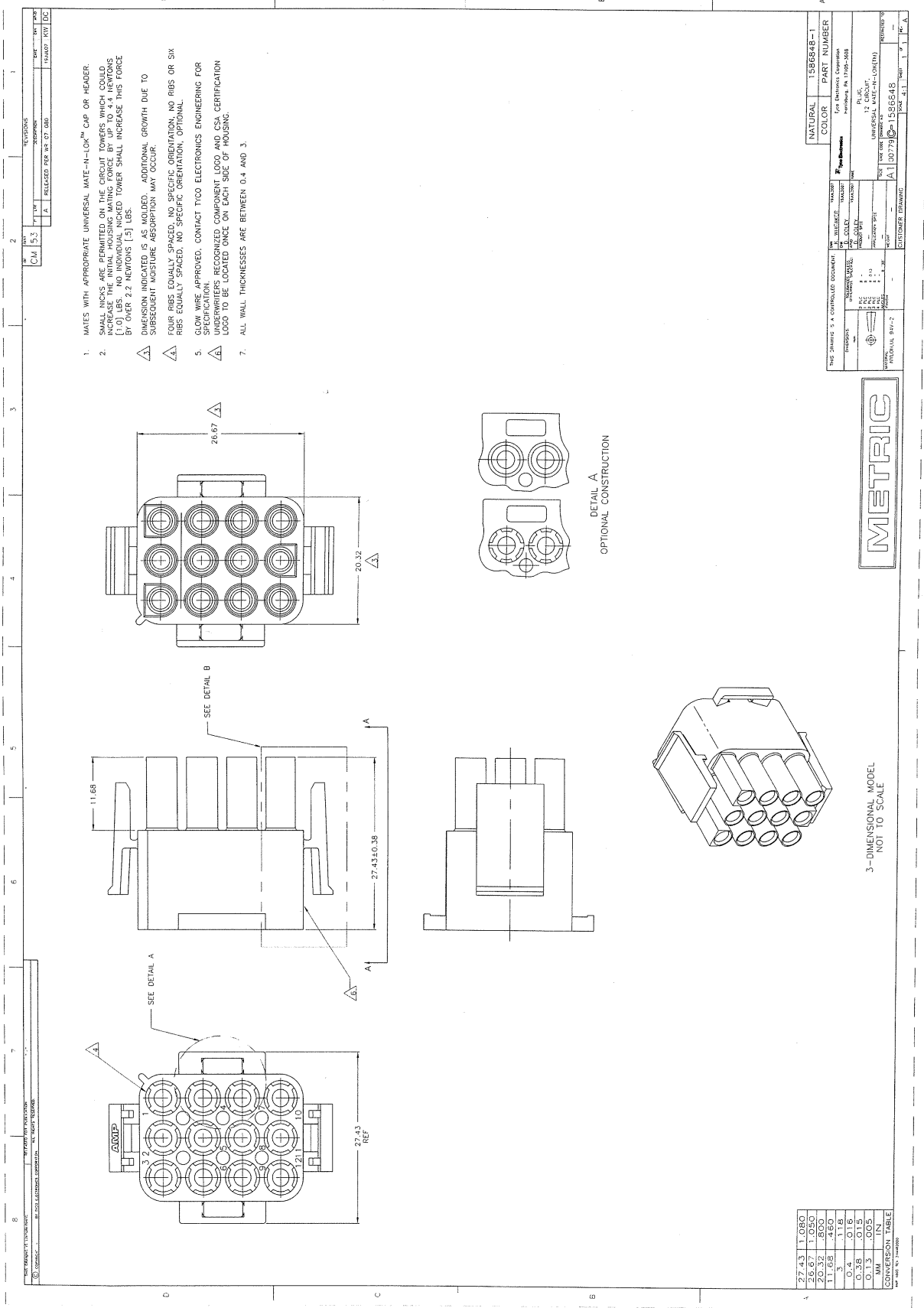
27.43	1.080
14.73	.580
20.32	.800
11.68	.460
7.62	.300
0.4	.016
0.38	.015
0.13	.005
MM	IN
CONVERSION TABLE	
SEE TABLE 20-10000	

3-DIMENSIONAL MODEL
NTS

DETAIL A
OPTIONAL CONSTRUCTION

THIS DRAWING IS A CONTROLLED DOCUMENT	REVISIONS	DATE	BY	APP'D
	1			
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	98			
	99			
	100			





1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ CAP OR HEADER.
2. SMALL NICKS ARE PERMITTED ON THE CIRCUIT TOWERS WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 4.4 NEWTONS (1.0) LBS. NO INDIVIDUAL NICKED TOWER SHALL INCREASE THIS FORCE BY OVER 2.2 NEWTONS (.5) LBS.
3. DIMENSION INDICATED IS AS MOULDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
4. FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, NO RIBS OR SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL.
5. GLOW WIRE APPROVED, CONTACT TYCO ELECTRONICS ENGINEERING FOR SPECIFICATION.
6. UNDERWIRE/RECOGNIZED COMPONENT LOGO AND CSA CERTIFICATION LOGO TO BE LOCATED ONCE ON EACH SIDE OF HOUSING.
7. ALL WALL THICKNESSES ARE BETWEEN 0.4 AND 3.

CONVERSION TABLE
AS PER MIL-STD-883C

MM	IN
0.13	.005
0.38	.015
0.5	.020
1.18	.046
3	.118
7.62	.300
25.4	1.000
25.4	1.000
25.4	1.000

METRIC

3-DIMENSIONAL MODEL
NOT TO SCALE

DETAIL A
OPTIONAL CONSTRUCTION

THIS DRAWING IS A CONTROLLED DOCUMENT		MILITARY		NATURAL		1586648-1	
REVISED	DATE	BY	CHKD	COLOR	PART NUMBER	PART NUMBER	
1				BLACK	1586648-1	1586648-1	
SUBJECT: CONNECTOR HOUSING				MILITARY			
DRAWN: [Signature]				MILITARY			
CHECKED: [Signature]				MILITARY			
APPROVED: [Signature]				MILITARY			
DATE: 11/13				MILITARY			
SCALE: 1:1				MILITARY			
SHEET NO. 1 OF 1				MILITARY			
PROJECT NO. 70059209				MILITARY			
CUSTOMER DRAWING NO. 1586648				MILITARY			
CUSTOMER DRAWING				MILITARY			

FIG 347
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

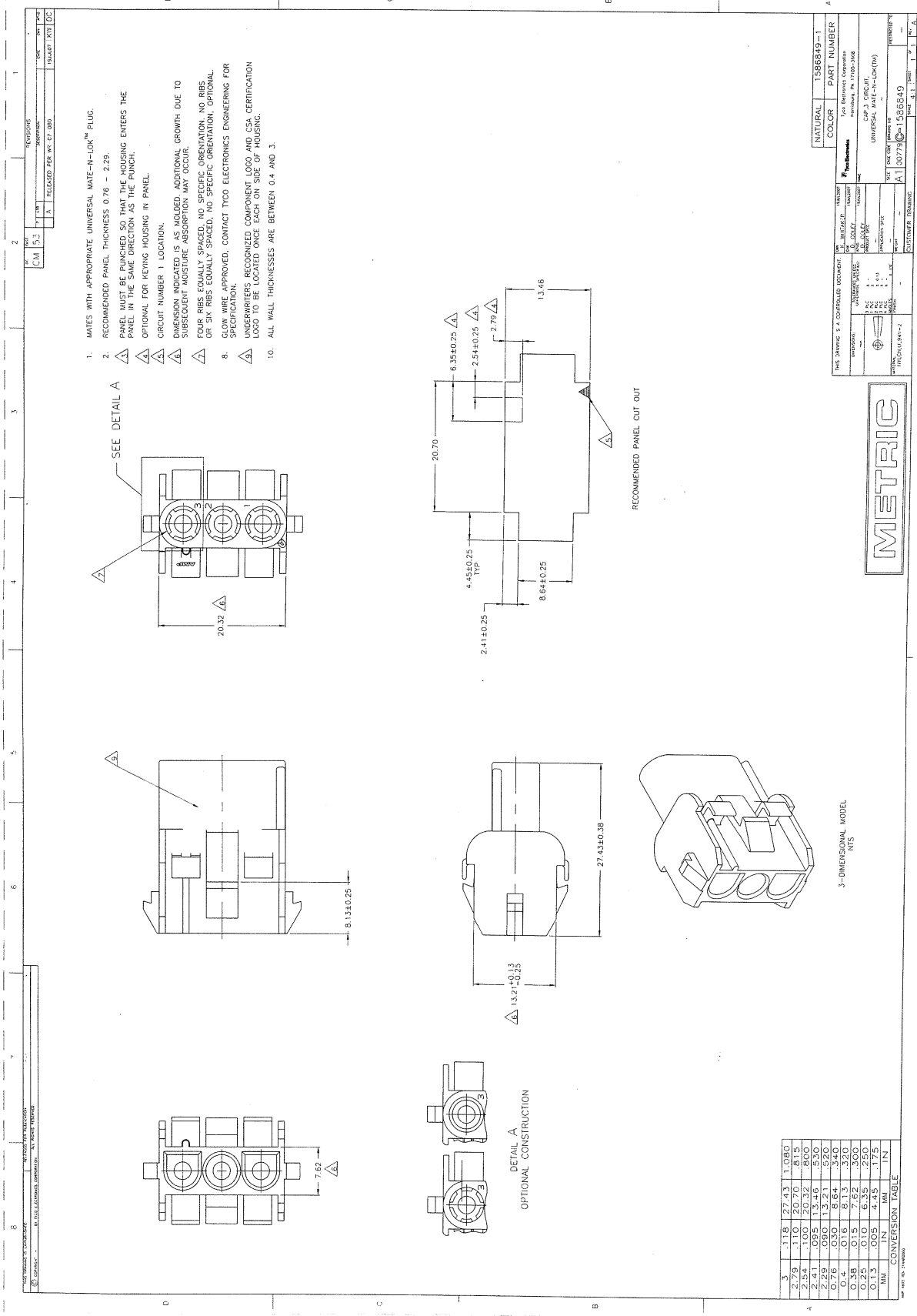
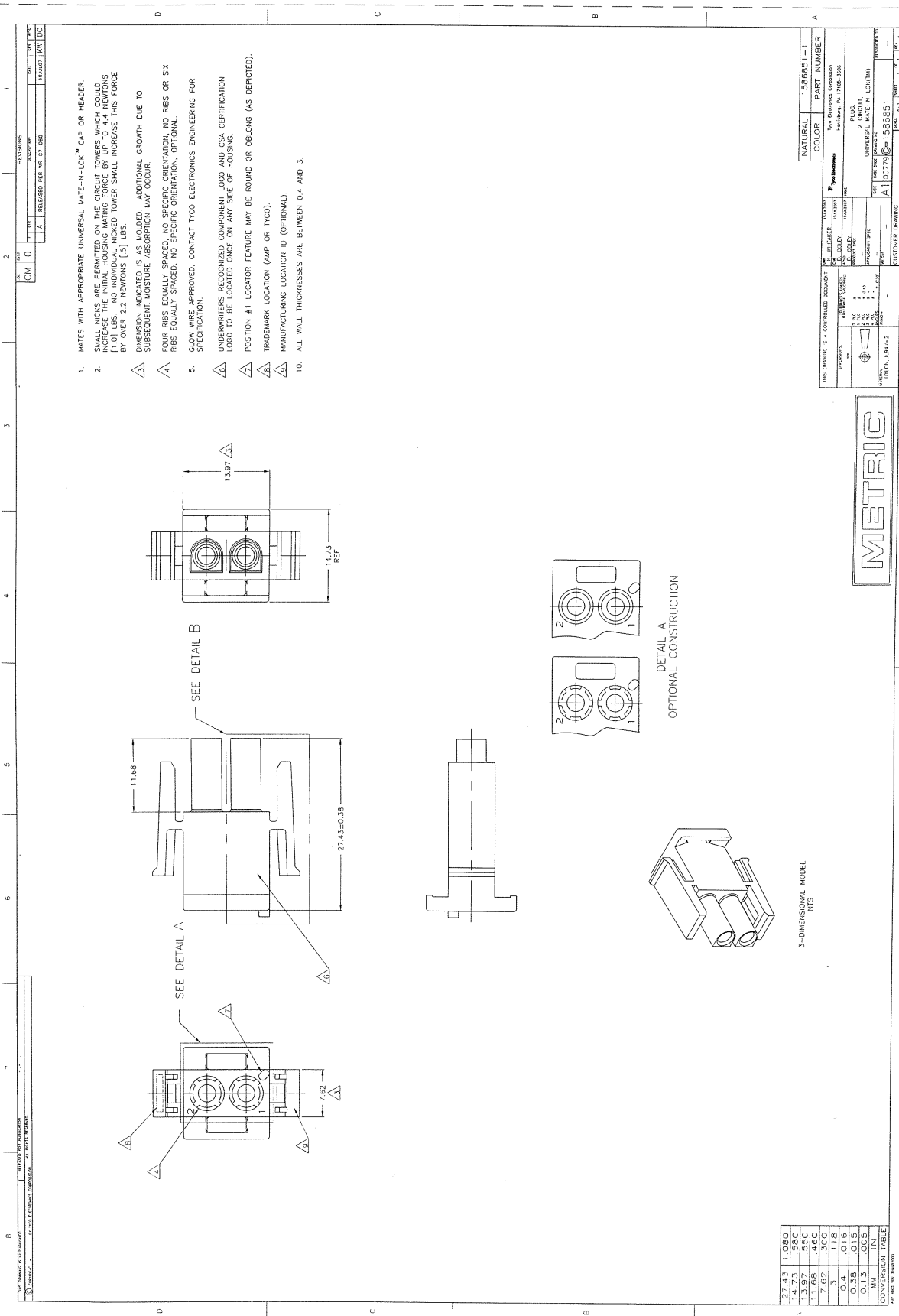
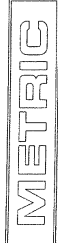


FIG 348
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549



1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOK[®] CAP OR HEADER.
2. SMALL INCHES ARE PERMITTED ON THE CIRCUM FENCES WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 4.4 NEWTONS (1.0 LBS). NO INDIVIDUAL NICKED TOWER SHALL INCREASE THIS FORCE BY OVER 2.2 NEWTONS (.5 LBS).
3. DIMENSION INDICATED IS AS MOULDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
4. FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, NO RIBS OR SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL.
5. GLOW WIRE APPROVED. CONTACT TYCO ELECTRONICS ENGINEERING FOR SPECIFICATION.
6. UNDERWRITERS RECOMMENDED COMPONENT LOGO HAS CSA CERTIFICATION LOGO TO BE LOCATED ONCE ON ANY SIDE OF HOUSING.
7. POSITION #1 LOCATOR FEATURE MAY BE ROUND OR OBLONG (AS DEPICTED).
8. TRADEMARK LOCATION (AMP OR TYCO).
9. MANUFACTURING LOCATION ID (OPTIONAL).
10. ALL WALL THICKNESSES ARE BETWEEN 0.4 AND 3.

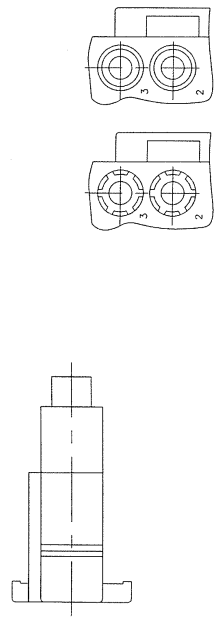
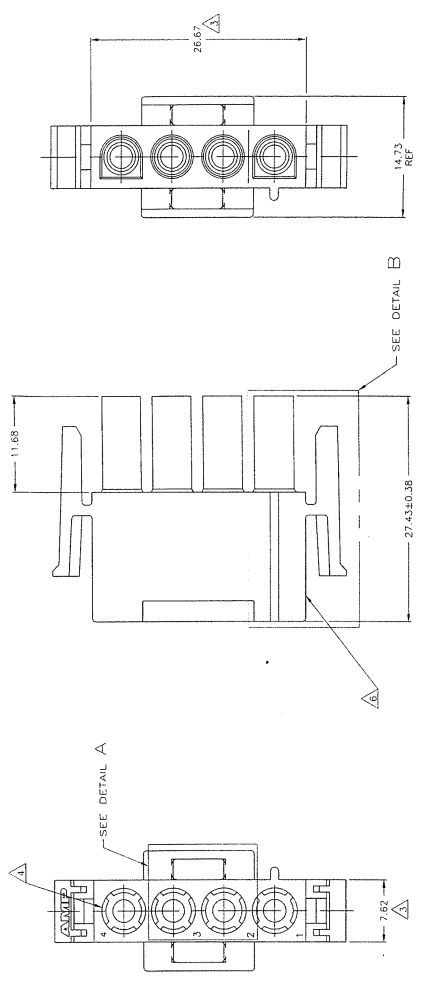
CONVERSION TABLE	
MIL	IN
2.743	1.080
13.97	550
11.68	460
7.62	300
3	118
0.15	6.1
0.13	5.1
0.005	0.2



NATURAL COLOR	158851-1
158851-1	158851-1
158851-2	158851-2
158851-3	158851-3
158851-4	158851-4
158851-5	158851-5
158851-6	158851-6
158851-7	158851-7
158851-8	158851-8
158851-9	158851-9
158851-10	158851-10
158851-11	158851-11
158851-12	158851-12
158851-13	158851-13
158851-14	158851-14
158851-15	158851-15
158851-16	158851-16
158851-17	158851-17
158851-18	158851-18
158851-19	158851-19
158851-20	158851-20

REVISED PER W.F. 07 2000

1. MATE WITH APPROPRIATE UNIVERSAL MATE-N-LOCK™ CAP OR HEADER.
2. SMALL NICKS ARE PERMITTED ON THE CIRCUIT TOWERS WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 4.4 NEWTONS (1.0 LBS.). THE MATING FORCE AFTER SHALL INCREASE THIS FORCE BY OVER 2.2 NEWTONS (.5 LBS.).
- △ DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
- △ FOUR RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. OPTIONAL ENGINEERING FOR SPECIFICATION.
5. GLOW WIRE APPROVED CONTACT TYCO ELECTRONICS
- △ UNDERWRITERS RECOGNIZED COMPONENT LOCO AND CSA CERTIFICATION LOCO TO BE LOCATED ONCE EACH ON SIDE OF HOUSING.
7. ALL WALL THICKNESSES ARE BETWEEN 0.4 AND 3.



DETAIL A
OPTIONAL CONSTRUCTION

3-DIMENSIONAL MODEL
NTS

CONVERSION TABLE	
MM	IN
0.13	.005
0.4	.015
0.8	.031
1.18	.046
2.54	.100
5.08	.200
7.62	.300
11.68	.460
14.73	.580
27.43	1.080
50.8	2.000

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DATE: 07 2000
 DRAWN BY: [blank]
 CHECKED BY: [blank]
 APPROVED BY: [blank]

NATURAL COLOR
 1586652-1
 1586652-1
 1586652-1

PLUG & CIRCUIT
 UNIVERSAL MATE-N-LOCK™

1586652
 1586652
 1586652

1586652-1
 1586652-1
 1586652-1



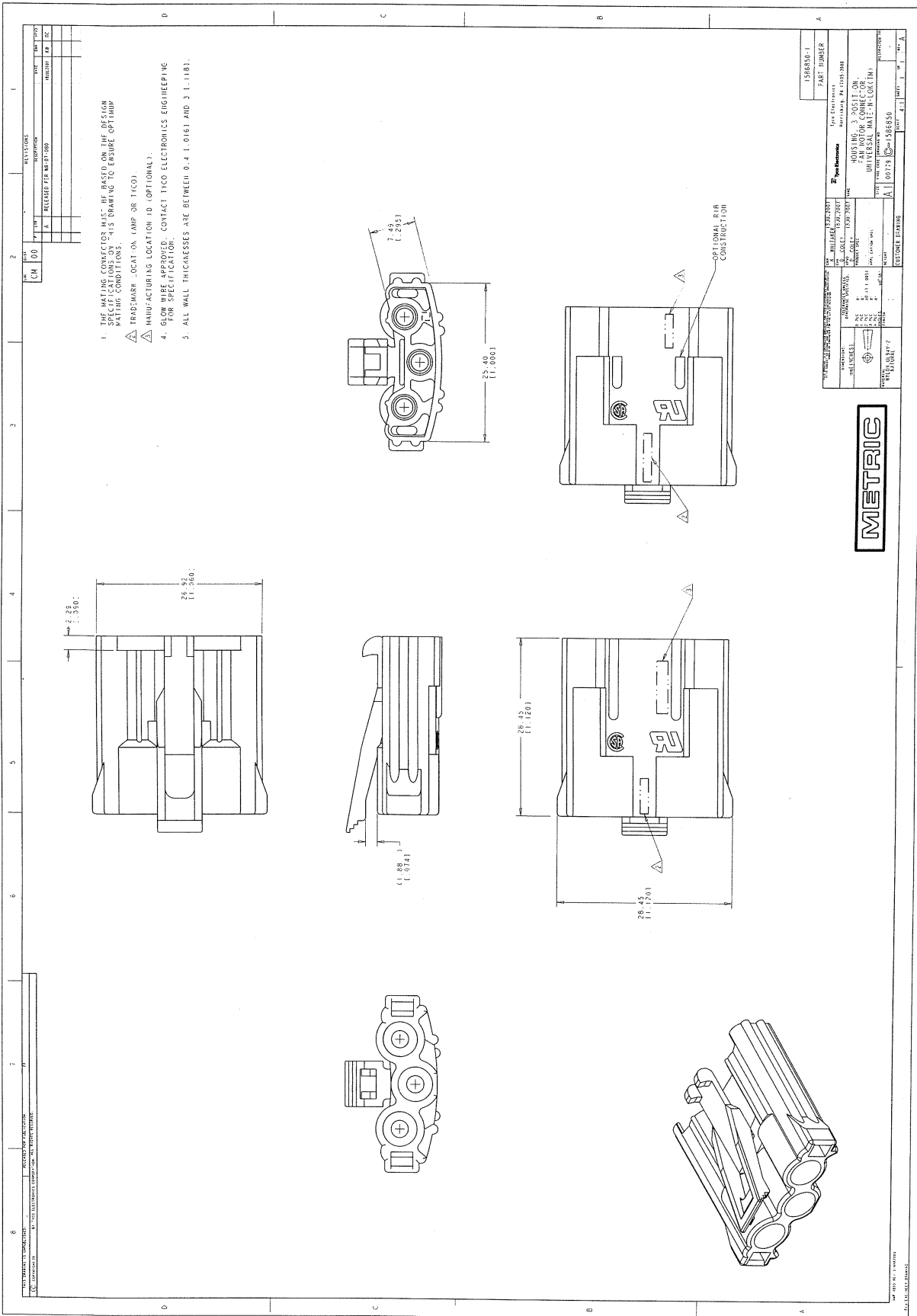


FIG 351
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

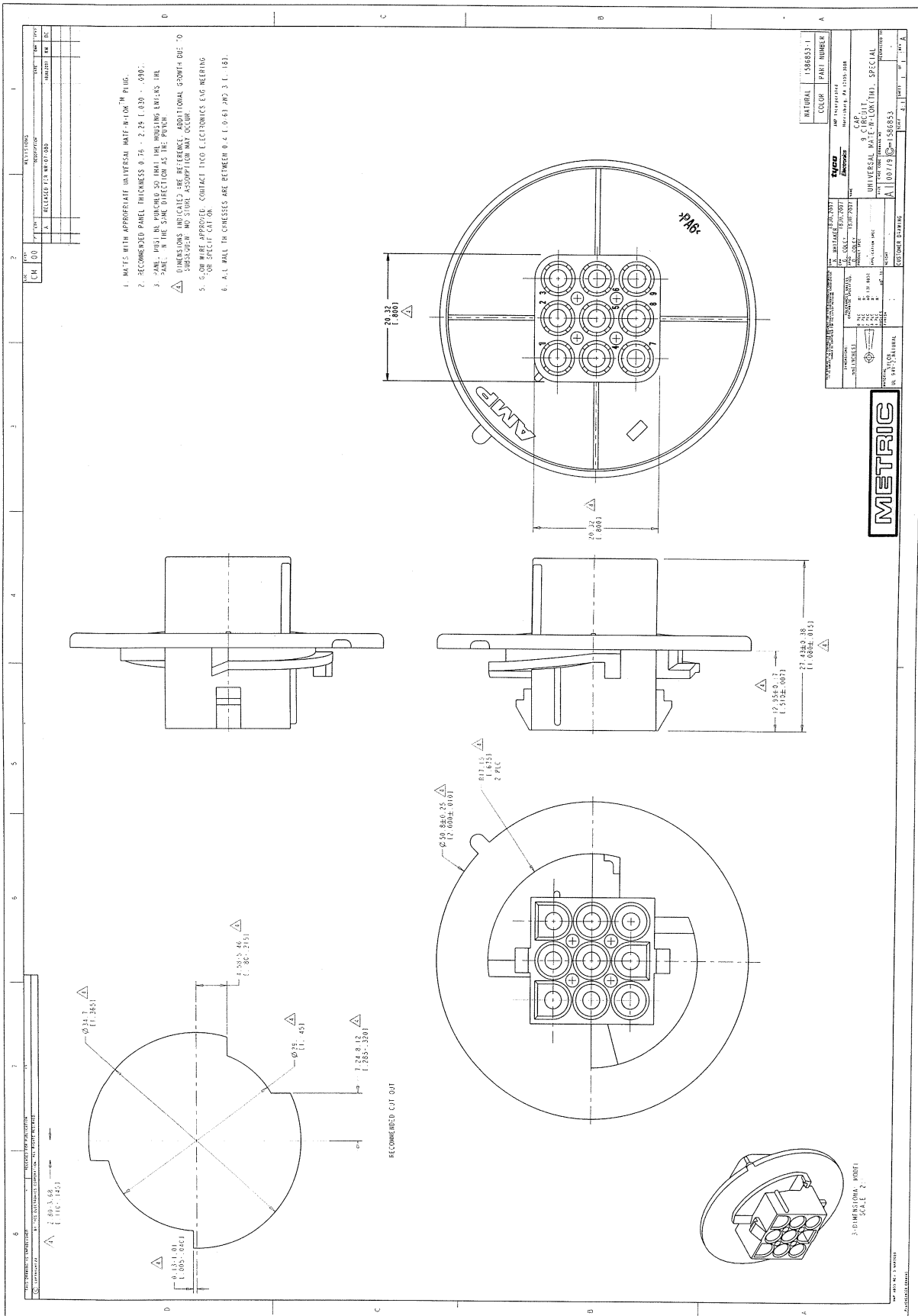


FIG 352
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

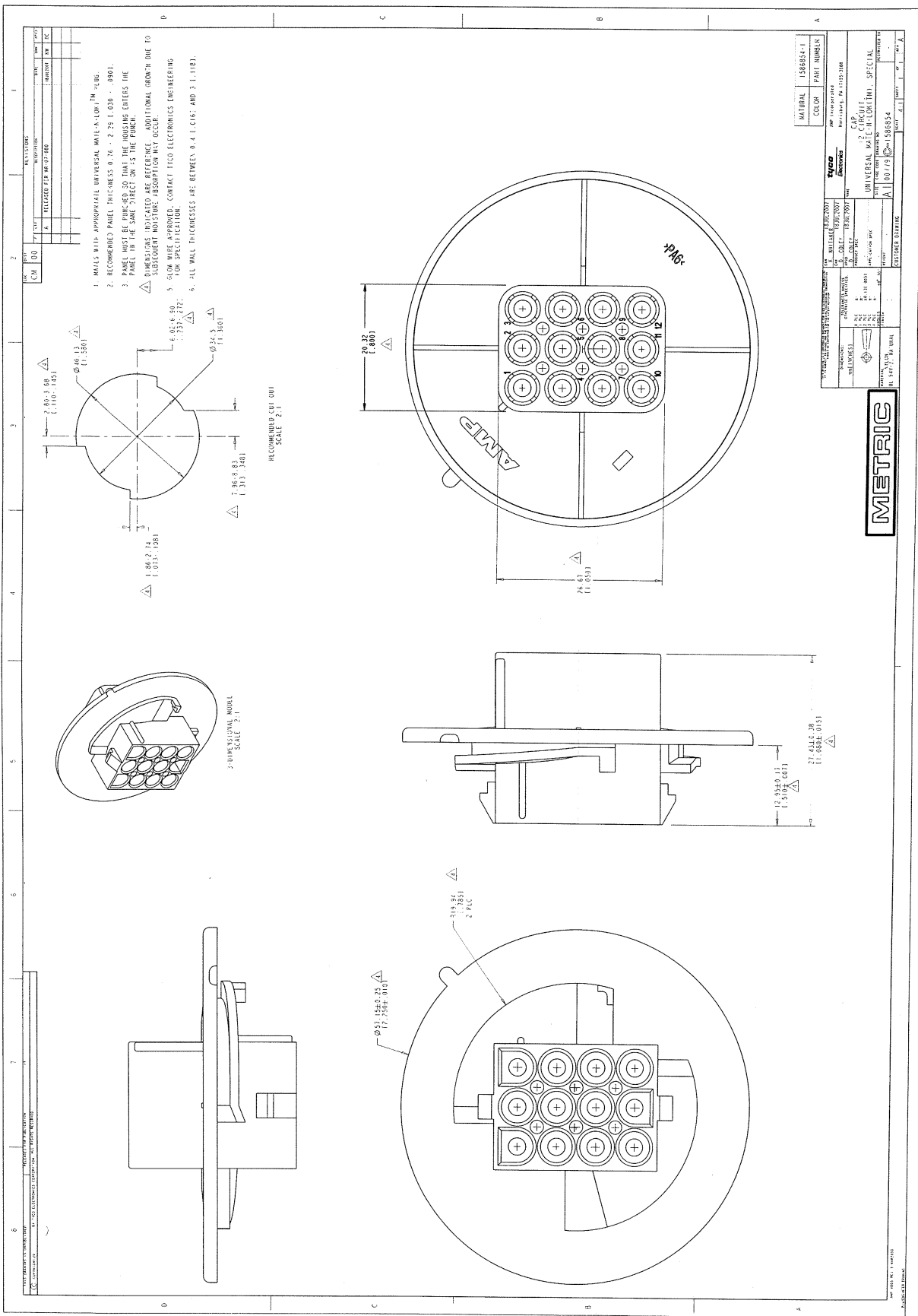
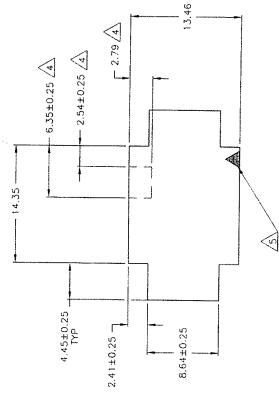
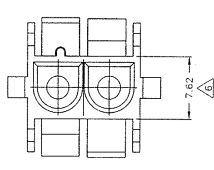
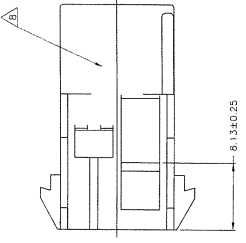
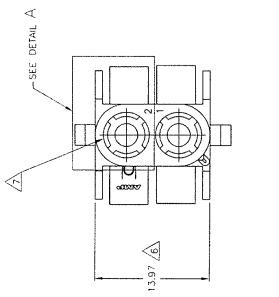
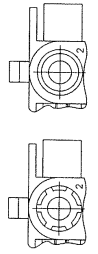


FIG 353
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

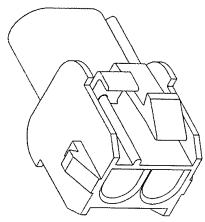
1. MATE WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ PLUG.
2. RECOMMENDED PANEL THICKNESS 0.76 - 2.29.
3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
4. OPTIONAL FOR KEYING HOUSING IN PANEL.
5. CIRCUIT NUMBER 1 LOCATION.
6. DIMENSION INDICATED IS AS MOLDED. DIMENSIONS INDICATED IN PARENTHESES ARE RECOMMENDED TO PREVENT MOISTURE ABSORPTION FROM OCCURRING.
7. EQUAL RIBS, EQUALLY SPACED. NO SPECIFIC ORIENTATION, NO RIBS OR SIX RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION, OPTIONAL.
8. UNDERWRITERS RECOGNIZED COMPONENT LOGO REQUIRED. COMPONENT LOGO MUST BE LOCATED ONCE EACH ON SIDE OF HOUSING.
9. GLOW WIRE APPROVED. CONTACT TYCO ELECTRONICS ENGINEERING FOR SPECIFICATION.
10. ALL WALL THICKNESSES ARE BETWEEN 0.4 AND 3.



RECOMMENDED PANEL CUT OUT



OPTIONAL CONSTRUCTIONS



3-DIMENSIONAL MODEL

CONVERSION TABLE	
MM	IN
0.1	0.0039
0.2	0.0079
0.3	0.0118
0.4	0.0157
0.5	0.0197
0.6	0.0236
0.7	0.0276
0.8	0.0315
0.9	0.0354
1.0	0.0394
1.1	0.0433
1.2	0.0472
1.3	0.0512
1.4	0.0551
1.5	0.0591
1.6	0.0630
1.7	0.0669
1.8	0.0708
1.9	0.0748
2.0	0.0787
2.1	0.0827
2.2	0.0866
2.3	0.0906
2.4	0.0945
2.5	0.0984
2.6	0.1024
2.7	0.1063
2.8	0.1103
2.9	0.1142
3.0	0.1181
3.1	0.1221
3.2	0.1260
3.3	0.1300
3.4	0.1339
3.5	0.1379
3.6	0.1418
3.7	0.1458
3.8	0.1497
3.9	0.1537
4.0	0.1576
4.1	0.1616
4.2	0.1655
4.3	0.1695
4.4	0.1734
4.5	0.1774
4.6	0.1813
4.7	0.1853
4.8	0.1892
4.9	0.1932
5.0	0.1971
5.1	0.2011
5.2	0.2050
5.3	0.2090
5.4	0.2129
5.5	0.2169
5.6	0.2208
5.7	0.2248
5.8	0.2287
5.9	0.2327
6.0	0.2366
6.1	0.2406
6.2	0.2445
6.3	0.2485
6.4	0.2524
6.5	0.2564
6.6	0.2603
6.7	0.2643
6.8	0.2682
6.9	0.2722
7.0	0.2761
7.1	0.2801
7.2	0.2840
7.3	0.2880
7.4	0.2919
7.5	0.2959
7.6	0.2998
7.7	0.3038
7.8	0.3077
7.9	0.3117
8.0	0.3156
8.1	0.3196
8.2	0.3235
8.3	0.3275
8.4	0.3314
8.5	0.3354
8.6	0.3393
8.7	0.3433
8.8	0.3472
8.9	0.3512
9.0	0.3551
9.1	0.3591
9.2	0.3630
9.3	0.3670
9.4	0.3709
9.5	0.3749
9.6	0.3788
9.7	0.3828
9.8	0.3867
9.9	0.3907
10.0	0.3946



NATURAL	15568556-1
COLOR	PART NO
UNIVERSAL MATE-N-LOK™ PLUG	
HOUSING NO. 1556-3008	
CAR-2 PART-1-OK	
UNIVERSAL MATE-N-LOK™	
Housing No. 1556-3008	
REV. 1 11/17/93	
A | 0079 | 15568556	
CUSTOMER DRAWING	

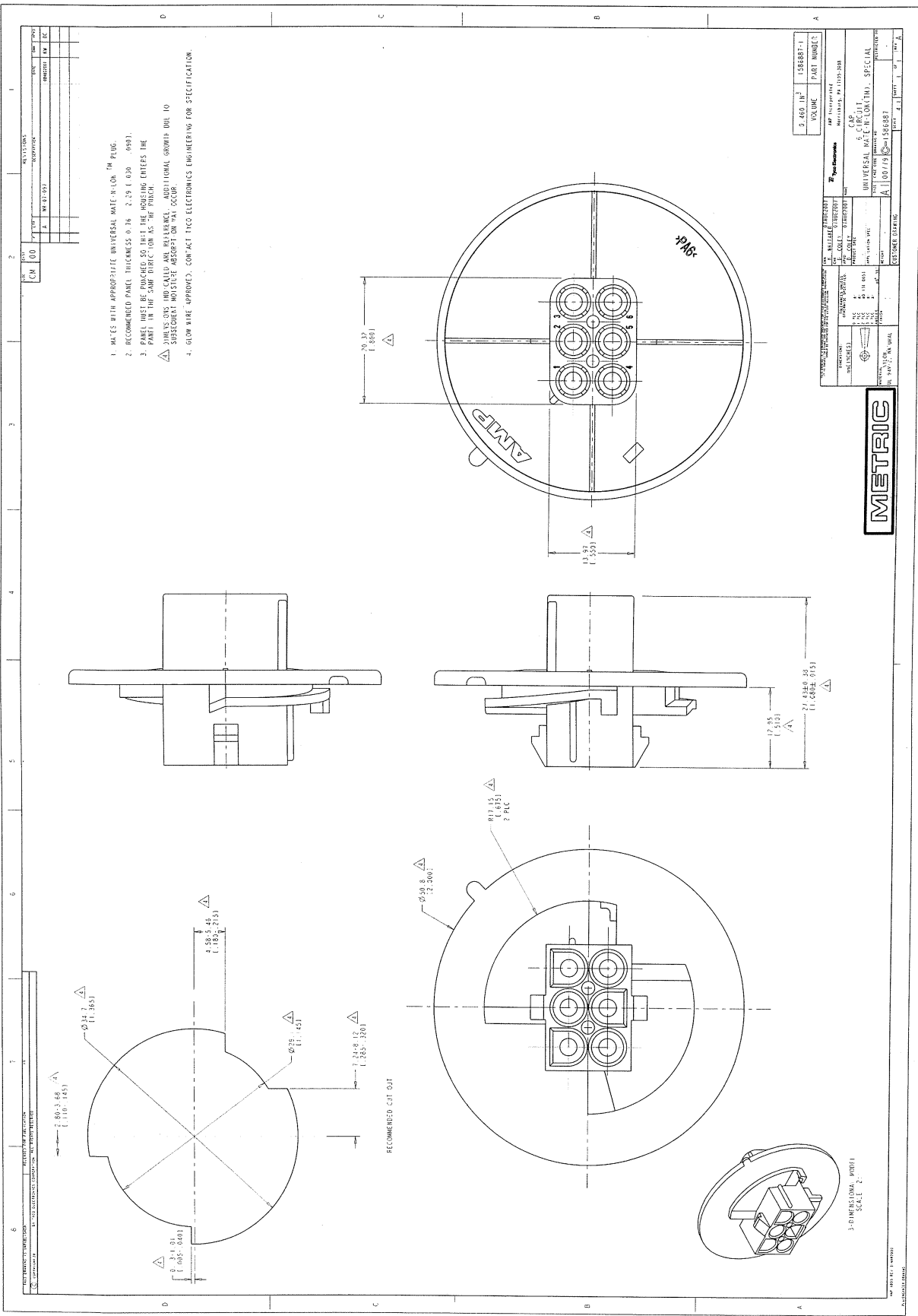
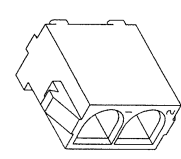
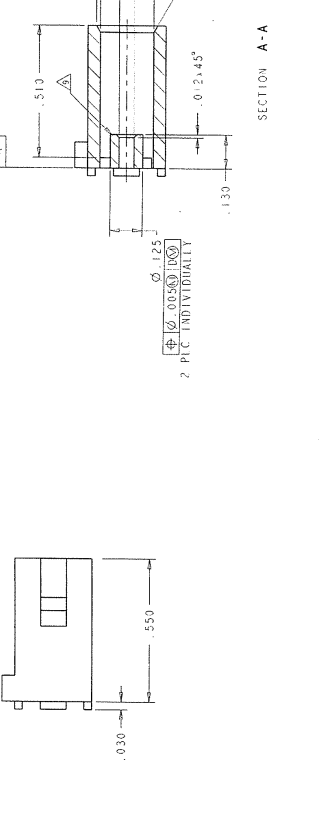
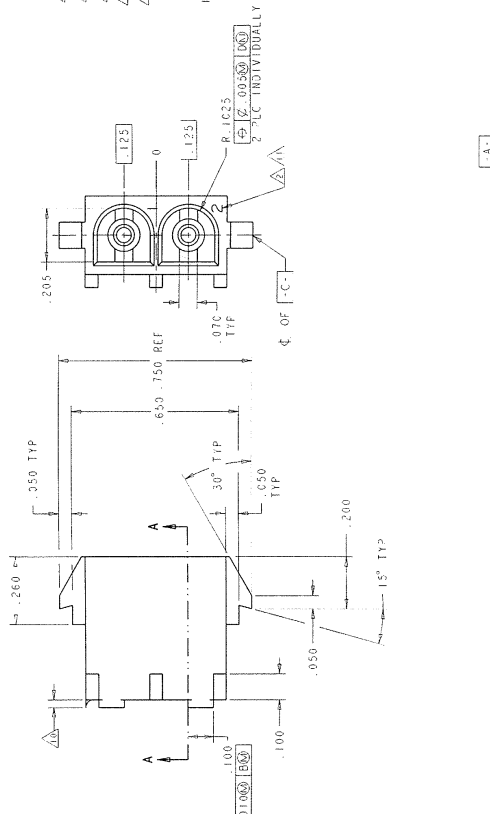


FIG 355
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549

LOCATE MOLD CAVITY IDENTIFICATION THIS AREP.

CHARACTERS .023 HIGH (RAISED) .002-.005 DEEP TO .0025 TOP. (REFERENCE FOR TOOL CONSTRUCTION ONLY).

- 3. MAX DRAFT ANGLE = $0^{\circ}30'$
- 4. PARTS MUST CONFORM TO AMP S3FC. 115-49001.
- ALL DRAIN HOLES MUST BE OPEN.
- MOLDING COMPOUND NYLON TYPE 6. NATURAL. 705304-1.
- .015 MAX FLASH PERMISSIBLE.
- .030 MAX HIGH MATERIAL ALLOWED IN THIS AREA.
- POSITION CIRCUIT IDENTIFICATION CHARACTERS TO BE LOCATED AS SHOWN TO BE PREPARED IN THE ORIENTATION AND LOCATIONS SHOWN.
- MOISTURE CONTENT OF PART TO BE 2% (3% B).
- WEIGHT PER 100 ELECTRONICS SPEC 110-1030.

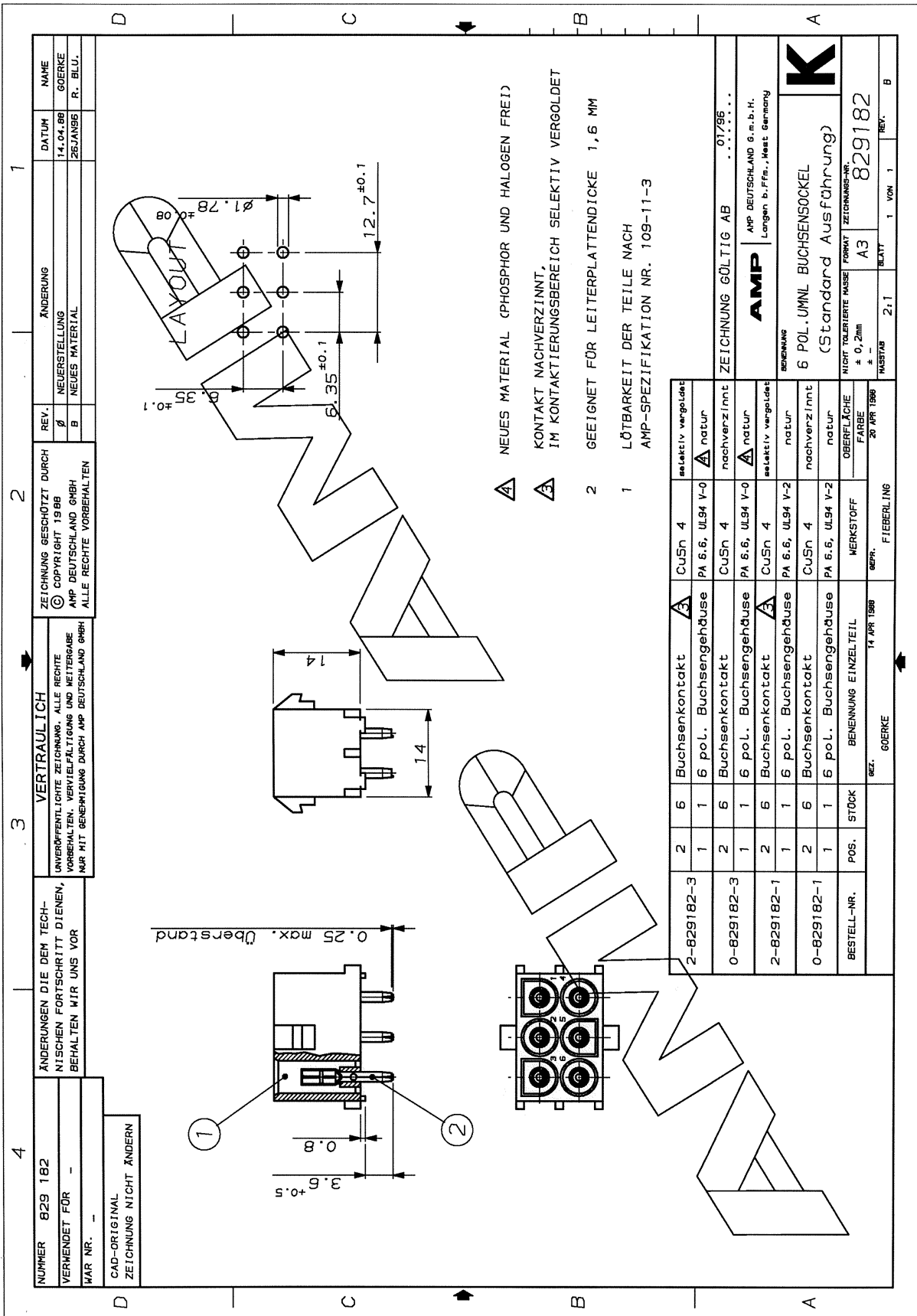


SCALE 4:1

DATE	25 JUL 2007	NATURAL	1588932-1
BY	COLETT	COLOR	
CHKD			
APP'D			
DESCRIPTION	2-PORT DUALY		
QUANTITY	1		
REVISION	1		
REVISION	2		
REVISION	3		
REVISION	4		
REVISION	5		
REVISION	6		
REVISION	7		
REVISION	8		

REV	DATE	BY	CHKD	APP'D	DESCRIPTION
1	25 JUL 2007	COLETT			2-PORT DUALY
2					2-PORT DUALY
3					2-PORT DUALY
4					2-PORT DUALY
5					2-PORT DUALY
6					2-PORT DUALY
7					2-PORT DUALY
8					2-PORT DUALY

FIG 356
Project 70059209
Report 1030930
Contract 164196
LR 7189-549



NUMMER 829 182	ÄNDERUNGEN DIE DEM TECHNISCHEN FORTSCHRITT DIENEN, BEHALTEN WIR UNS VOR	VERTRAULICH	ZEICHNUNG GESCHÜTZT DURCH © COPYRIGHT 1988 AMP DEUTSCHLAND GMBH ALLE RECHTE VORBEHALTEN	REV. Ø B	NEUERSTELLUNG NEUES MATERIAL	ÄNDERUNG	DATUM 14.04.88	NAME GOERKE
VERWENDET FÜR -							ZUSATZ	R. BLU.
WAR NR. -								

CAD-ORIGINAL
ZEICHNUNG NICHT ÄNDERN

- 4 ANERKENNUNG DER TECHNISCHEN FORTSCHRITTE DIENEN, BEHALTEN WIR UNS VOR
- 3 VERTRAULICH
- 2 ZEICHNUNG GESCHÜTZT DURCH © COPYRIGHT 1988 AMP DEUTSCHLAND GMBH ALLE RECHTE VORBEHALTEN
- 1 REV. Ø B NEUERSTELLUNG NEUES MATERIAL

- 2 GEEIGNET FÜR LEITERPLATTENDICKE 1,6 MM
- 1 LÖTBARKEIT DER TEILE NACH AMP-SPEZIFIKATION NR. 109-11-3

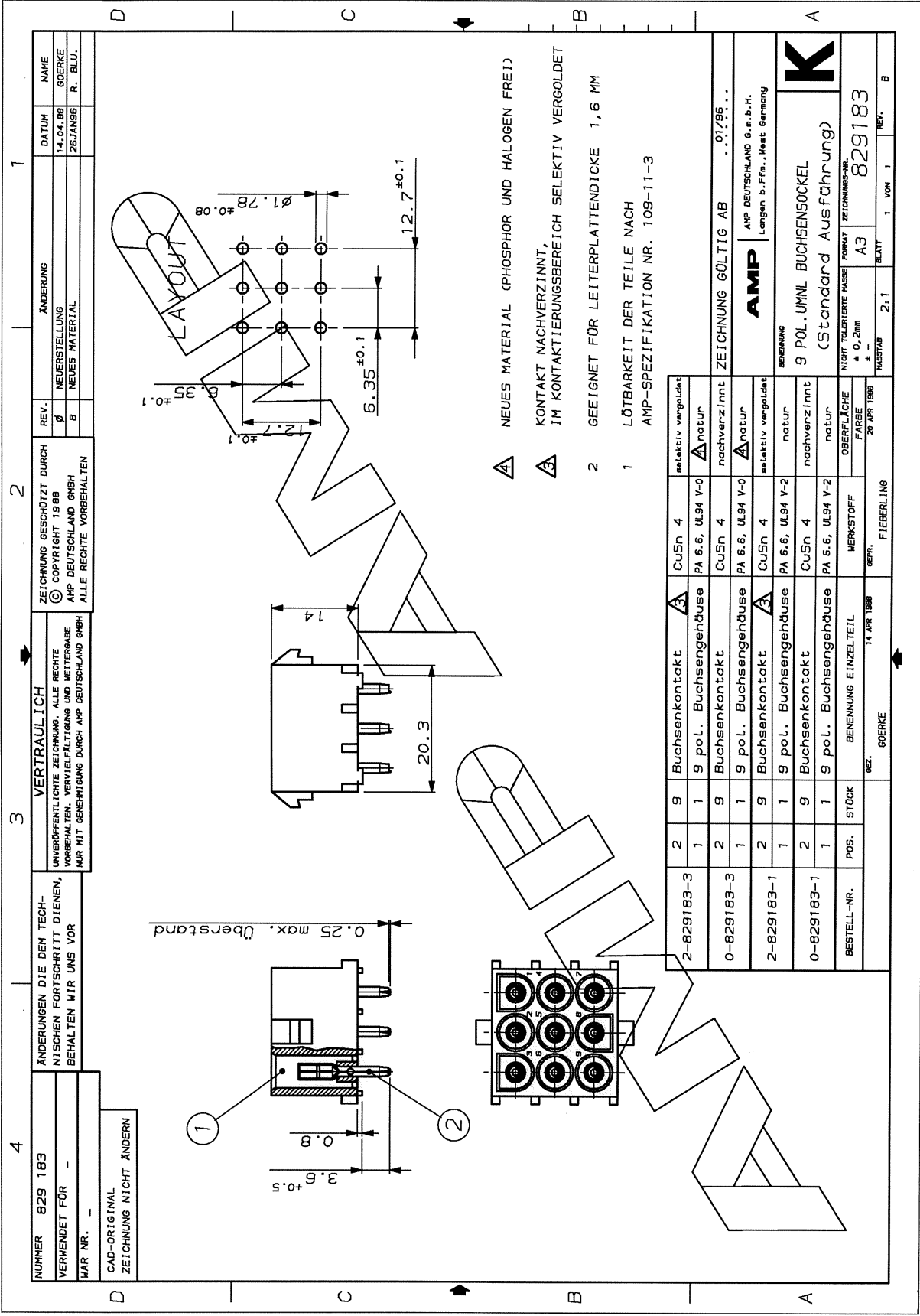
- ▲ NEUES MATERIAL (PHOSPHOR UND HALOGEN FREI)
- ▲ KONTAKT NACHVERZINNT, IM KONTAKTIERUNGSBEREICH SELEKTIV VERGOLDET

2-829182-3	2	6	Buchsenkontakt	▲	CuSn 4	selektiv vergolde
0-829182-3	2	6	Buchsengehäuse	▲	PA 6.6, UL94 V-0	natur
2-829182-1	2	6	Buchsenkontakt	▲	CuSn 4	nachverzinkt
0-829182-1	2	6	Buchsengehäuse	▲	PA 6.6, UL94 V-2	selektiv vergolde
BESTELL-NR.	POS.	STÜCK	BENENNUNG EINZELTEIL	MERKSTOFF	WERN.	14 APR 1988
						20 APR 1988

2-829182-3	1	6	pol. Buchsengehäuse	▲	PA 6.6, UL94 V-0	natur
0-829182-3	1	6	pol. Buchsenkontakt	▲	PA 6.6, UL94 V-0	nachverzinkt
2-829182-1	1	6	pol. Buchsenkontakt	▲	CuSn 4	natur
0-829182-1	1	6	pol. Buchsengehäuse	▲	PA 6.6, UL94 V-2	nachverzinkt
BESTELL-NR.	POS.	STÜCK	BENENNUNG EINZELTEIL	MERKSTOFF	WERN.	14 APR 1988
						20 APR 1988

AMP	AMP DEUTSCHLAND G.m.b.H. Langen b.Ffs., West Germany
ZEICHNUNG GÜLTIG AB	01/95
BENENNUNG	6 POL. UMNL BUCHSENSOCKEL (Standard Ausführung)
NICHT TOLERIERTE MAÄßE	FORMAT A3
FÄRBE	ZEICHNUNGSNR. 829182
TAUSCHTAB	2,1
BLATT	1 VON 1
REV.	B

FIG 357
Project 70059209
Report 1030930
Contract 164196
LR 7189-549



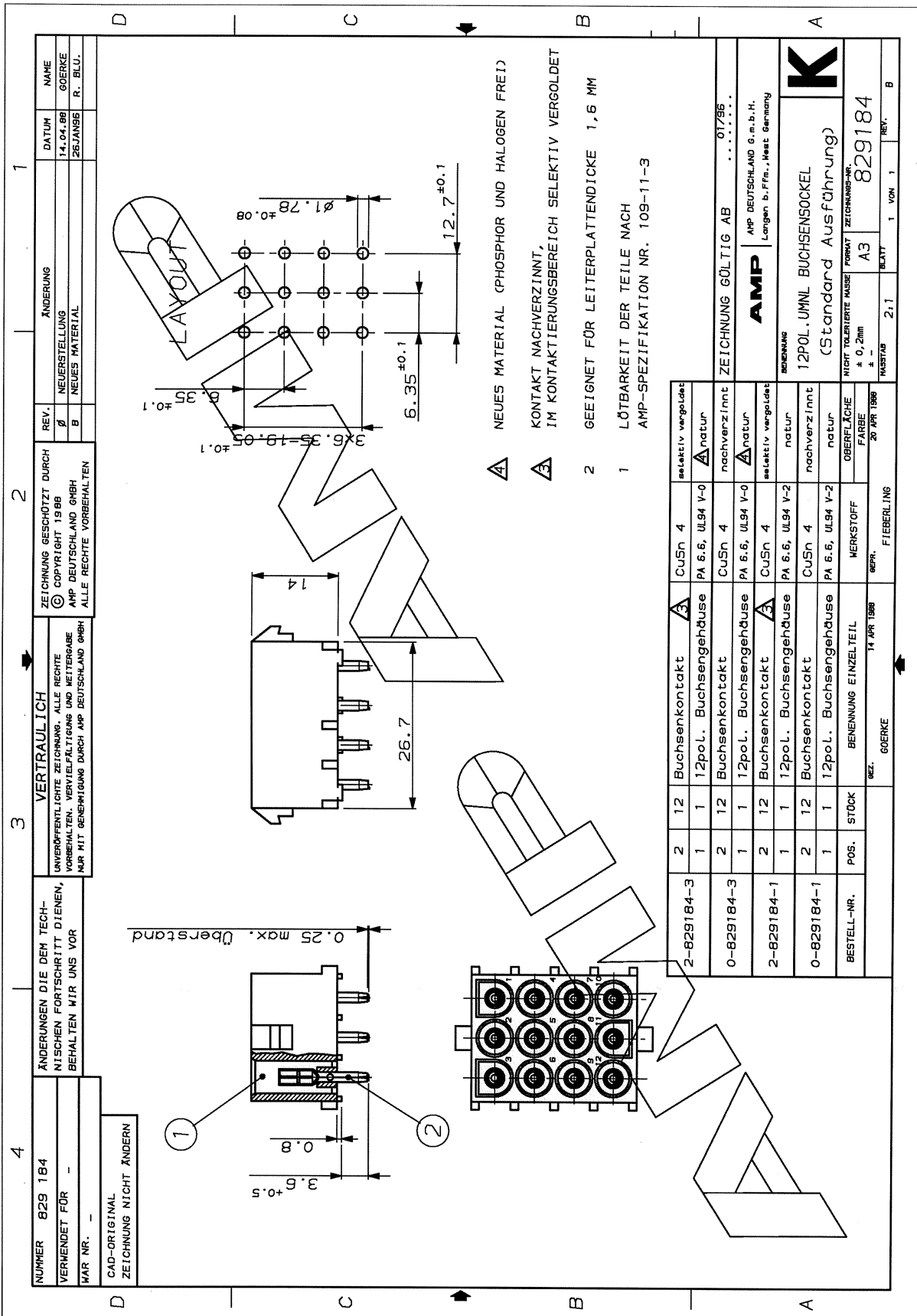
NUMMER 829 183	ÄNDERUNGEN DIE DEM TECHNISCHEN FORTSCHRITT DIENEN, BEHALTEN WIR UNS VOR	VERTRAULICH	ZEICHNUNG GESCHÜTZT DURCH © COPYRIGHT 1988 AMP DEUTSCHLAND GMBH	REV. Ø	ÄNDERUNG	DATUM	NAME
VERWENDET FÜR -	UNVERÖFFENTLICHTE ZEICHNUNGS. ALLE RECHTE VORBEHALTEN. VERVIELFÄLTIGUNG UND WEITERGABE NUR MIT BENEHMUNG DURCH AMP DEUTSCHLAND GMBH		ALLE RECHTE VORBEHALTEN	B	NEUERSTELLUNG	14.04.88	GOERKE
WAR NR. -					NEUES MATERIAL	26.JAN88	R. BLU.
CAD-ORIGINAL							
ZEICHNUNG NICHT ÄNDERN							

A NEUES MATERIAL (PHOSPHOR UND HALOGEN FREI)
 B KONTAKT NACHVERZINNT, IM KONTAKTIERUNGSBEREICH SELEKTIV VERGOLDET
 C GEEIGNET FÜR LEITERPLATTEN DicKE 1,6 MM
 D LÖTBARKEIT DER TEILE NACH AMP-SPEZIFIKATION NR. 109-11-3

2-829183-3	2	9	Buchsenkontakt	3	CuSn 4	selektiv vergolde	
	1	1	9 pol. Buchsengehäuse	Δ	PA 6.6, UL94 V-0	natur	
0-829183-3	2	9	Buchsenkontakt		CuSn 4	nachverzinkt	
	1	1	9 pol. Buchsengehäuse	3	PA 6.6, UL94 V-0	natur	
2-829183-1	2	9	Buchsenkontakt	Δ	CuSn 4	selektiv vergolde	
	1	1	9 pol. Buchsengehäuse		PA 6.6, UL94 V-2	natur	
0-829183-1	2	9	Buchsenkontakt		CuSn 4	nachverzinkt	
	1	1	9 pol. Buchsengehäuse		PA 6.6, UL94 V-2	natur	
BESTELL-NR.	POS.	STÜCK	BENENNUNG EINZELTEIL	WERKSTOFF	BEZ.	14 APR 1988	
					GOERKE	20 APR 1988	
					FIBERLINING		

AMP	AMP DEUTSCHLAND G.m.b.H.	
	Langen b. Ffm., West Germany	
BEZUGSNUMMER	9 POL. UMNL BUCHSENÖCKEL	
	(Standard Ausführung)	
NICHT TOLERIERTE MASSE	FORMAT	ZEICHNUNGS-NR.
+ 0,2mm	A3	829183
±	BLATT	1 VON 1
MAßSTAB	2:1	REV.
		B

FIG 358
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549



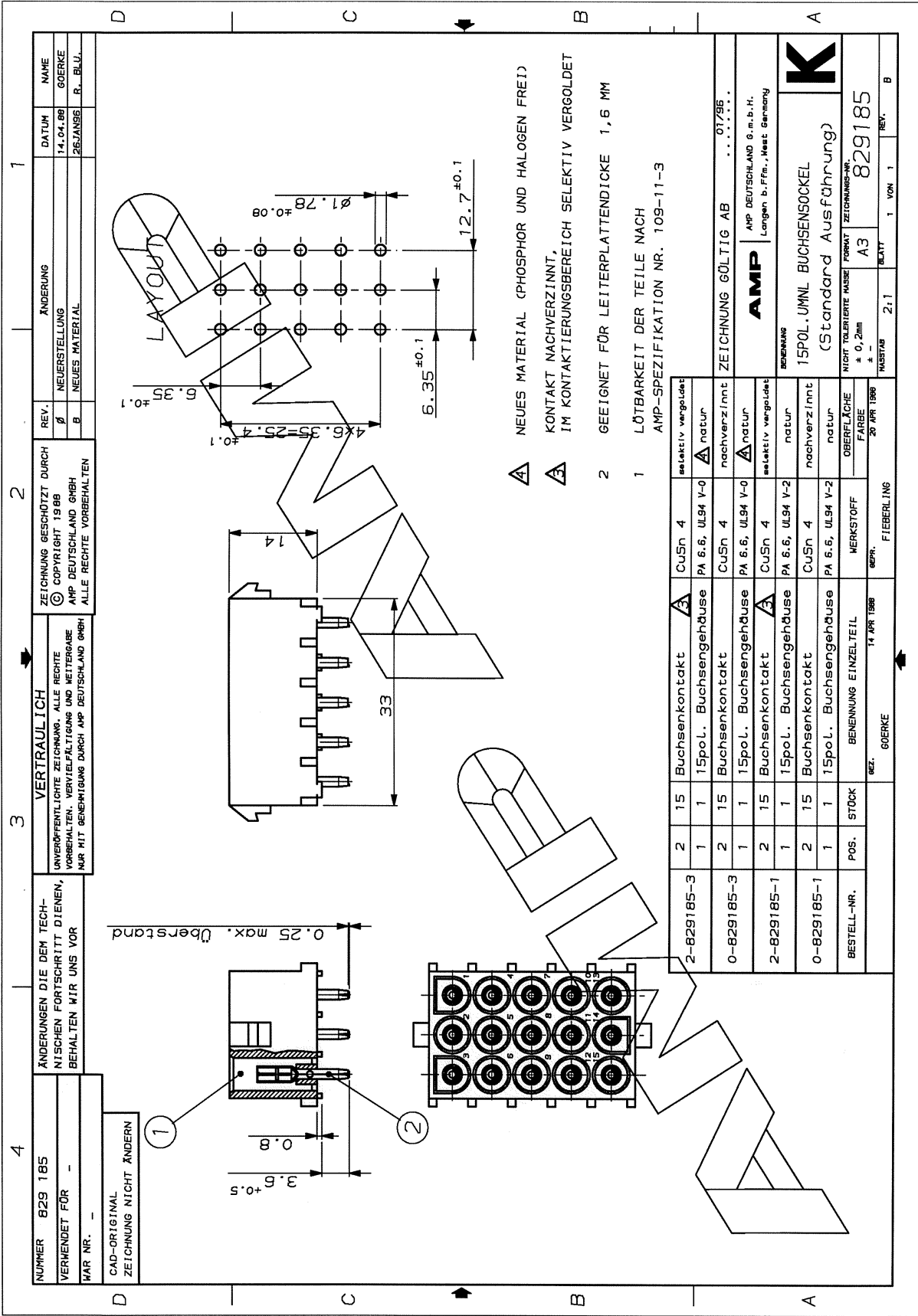
NUMMER 829 184	ÄNDERUNGEN DIE DEM TECHNISCHEN FORTSCHRITT DIENEN, BEHALTEN WIR UNS VOR	3	VERTRAULICH	ZEICHNUNG GESCHÜTZT DURCH © COPYRIGHT 1988 AMP DEUTSCHLAND GMBH ALLE RECHTE VORBEHALTEN	REV. B	NEUERSTELLUNG	ÄNDERUNG	DATUM 14.04.88	NAME GOERKE R. BLU.
VERWENDET FÜR -									
MAR. NR. -									
CAD-ORIGINAL									
ZEICHNUNG NICHT ÄNDERN									

A NEUES MATERIAL (PHOSPHOR UND HALOGEN FREI)
A KONTAKT NACHVERZINNT, IM KONTAKTIERUNGSBEREICH SELEKTIV VERGOLDET
2 GEEIGNET FÜR LEITERPLATTENDICKE 1,6 MM
1 LÖTBARKEIT DER TEILE NACH AMP-SPEZIFIKATION NR. 109-11-3

2-829184-3	2	12	Buchsenkontakt	A	CUSn 4	selektiv vergolde	
	1	1	12pol. Buchsengehäuse	A	PA 6.6, UL94 V-0	natur	
0-829184-3	2	12	Buchsenkontakt		CUSn 4	nachverz. nnt	
	1	1	12pol. Buchsengehäuse	A	PA 6.6, UL94 V-0	natur	
2-829184-1	2	12	Buchsenkontakt	A	CUSn 4	selektiv vergolde	
	1	1	12pol. Buchsengehäuse	A	PA 6.6, UL94 V-2	natur	
0-829184-1	2	12	Buchsenkontakt		CUSn 4	nachverz. nnt	
	1	1	12pol. Buchsengehäuse	A	PA 6.6, UL94 V-2	natur	
BESTELL-NR.	POS.	STÜCK	BENENNUNG EINZELTEIL	WERKSTOFF	BEFR.	14 APR 1988	14 APR 1988
					GEZ. GOERKE		20 APR 1988
							F. BERLING

ZEICHNUNG GÜLTIG AB 01/795	AMP DEUTSCHLAND G.m.b.H. Langen b. Ffm., West Germany
BEZEICHNUNG	K
12POL. UMNL BUCHSENSOCKEL (Standard Ausführung)	
NICHT TOLERIERTE MÄSSE ± 0,2mm	FORMAT A3
ZEICHNUNGS-NR. 829184	BLATT 1 VON 1
PROZESS 2:1	REV. B

FIG 359
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549

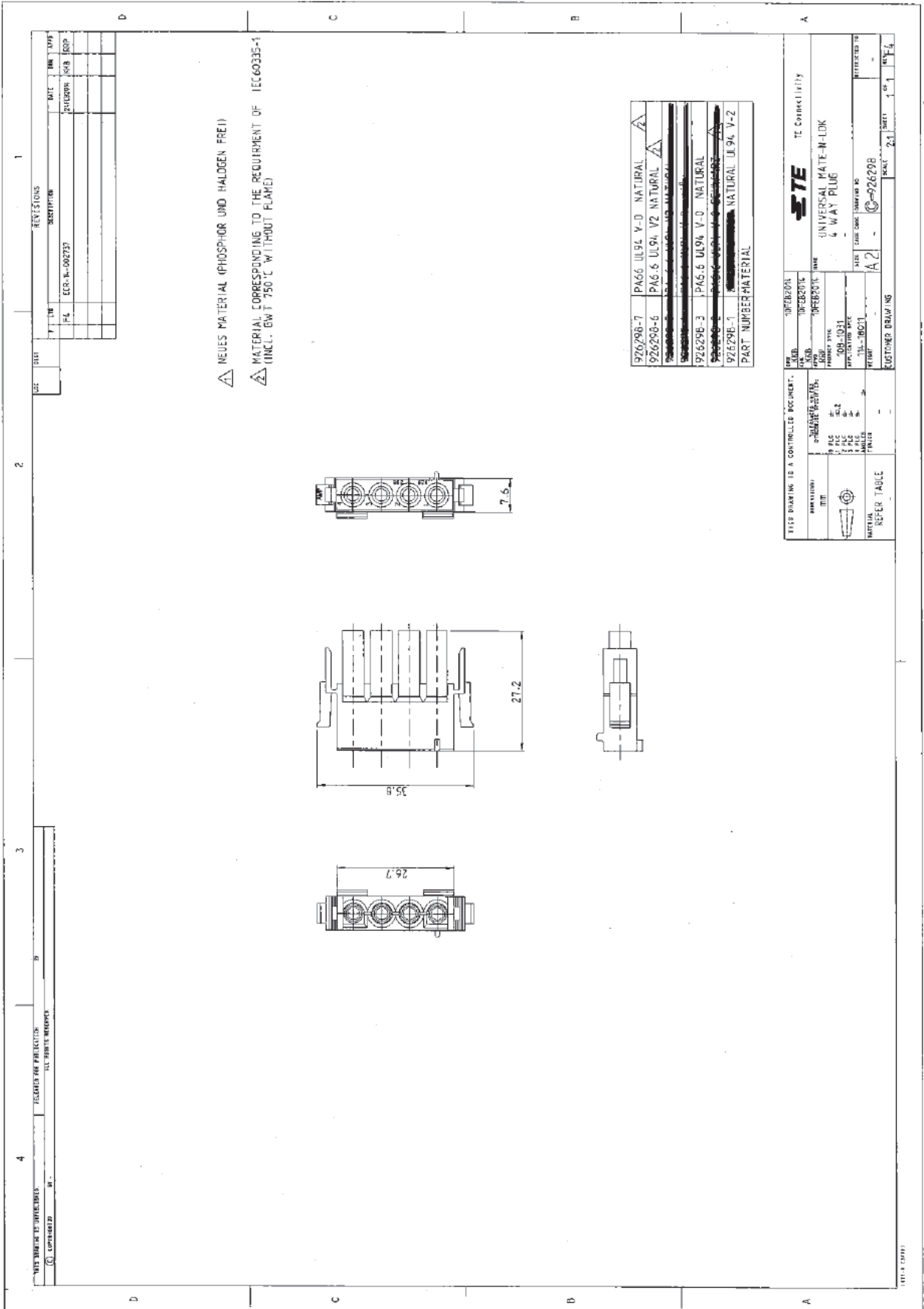


NUMMER 829 185	ÄNDERUNGEN DIE DEM TECHNISCHEN FORTSCHRITT DIENEN, BEHALTEN WIR UNS VOR	VERTRAULICH	ZEICHNUNG GESCHÜTZT DURCH © COPYRIGHT 1988 AMP DEUTSCHLAND GMBH	REV. 1	ÄNDERUNG	DATUM	NAME
VERWENDET FÜR -	UNVERÖFFENTLICHTE ZEICHNUNG. ALLE RECHTE VORBEHALTEN. VERVIELFÄLTIGUNG UND WEITERGABE NUR MIT GENEHMIGUNG DURCH AMP DEUTSCHLAND GMBH		ALLE RECHTE VORBEHALTEN	2	NEUERSTELLUNG	14.04.88	GOERKE
WAR NR. -				3	NEUES MATERIAL	26.JÄNGB	R. BILU.
CAD-ORIGINAL				4			
ZEICHNUNG NICHT ÄNDERN							

- 1 LÖTBARKEIT DER TEILE NACH AMP-SPEZIFIKATION NR. 109-11-3
- 2 GEEIGNET FÜR LEITERPLATTENDICKE 1,6 MM
- 3 KONTAKT NACHVERZINNT. IM KONTAKTIERUNGSBEREICH SELEKTIV VERGOLDET
- 4 NEUES MATERIAL (PHOSPHOR UND HALOGEN FREI)

2-829185-3	1	15pol. Buchsengehäuse	CU5n 4	selektiv vergoldet	01/95
0-829185-3	2	Buchsengehäuse	CU5n 4	nachverzinkt	
2-829185-1	1	15pol. Buchsengehäuse	CU5n 4	selektiv vergoldet	
0-829185-1	2	Buchsengehäuse	CU5n 4	nachverzinkt	
BESTELL-NR.	POS.	STÜCK	BENENNUNG EINZELTEIL	WERKSTOFF	ZEICHNUNGS-NR.
			14 APR 1988	14 APR 1988	829185
			GEZ. GOERKE	FIEBERLING	
					REVISIONEN
					1 SPOL. UMNL. BUCHSENSOCKEL (Standard Ausführung)
					AMP DEUTSCHLAND G.m.b.H. Langen b. Ffm., West Germany
					AMP
					ZEICHNUNG GÜLTIG AB
					1 VON 1
					REV.

FIG 360
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549



926298

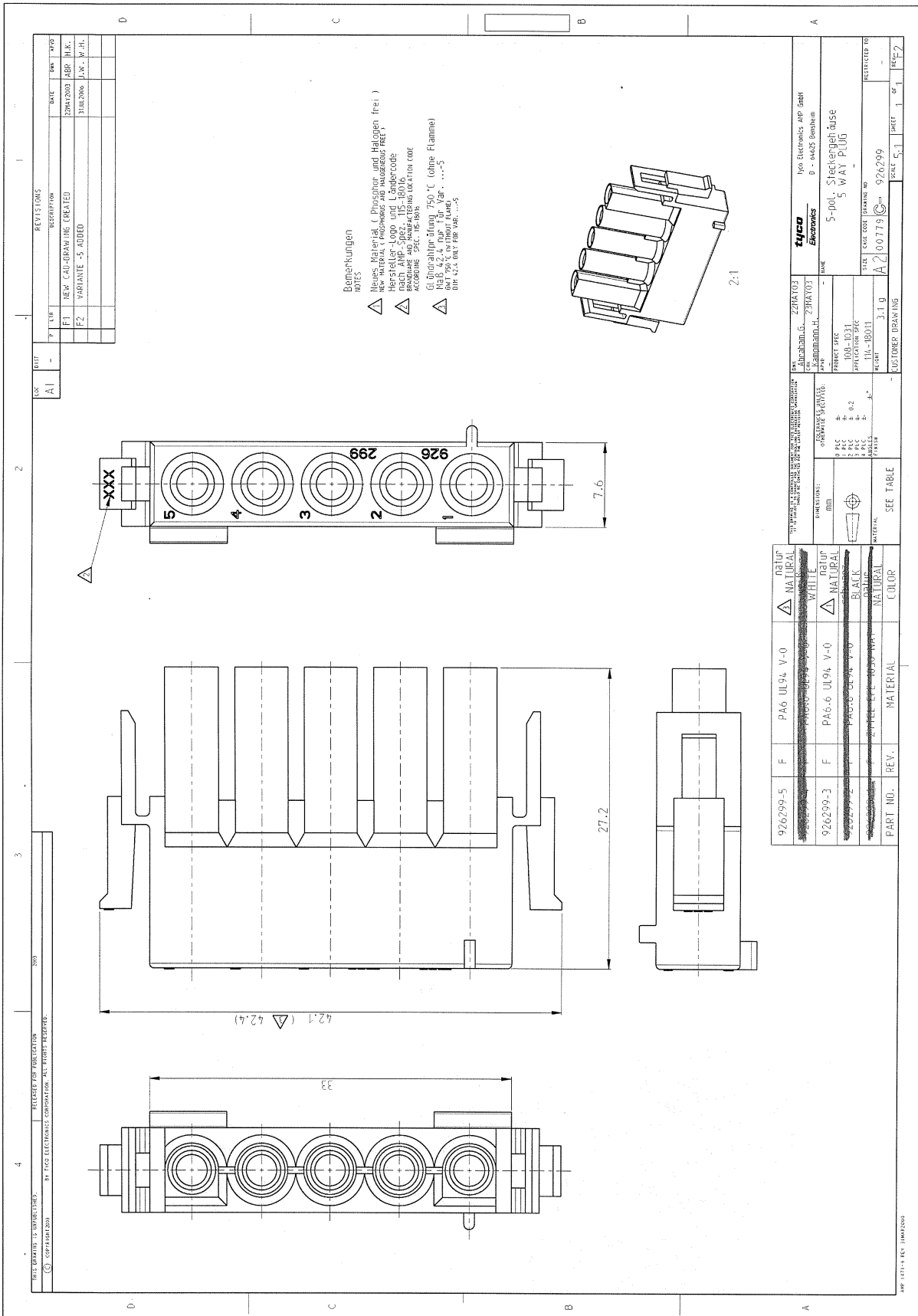
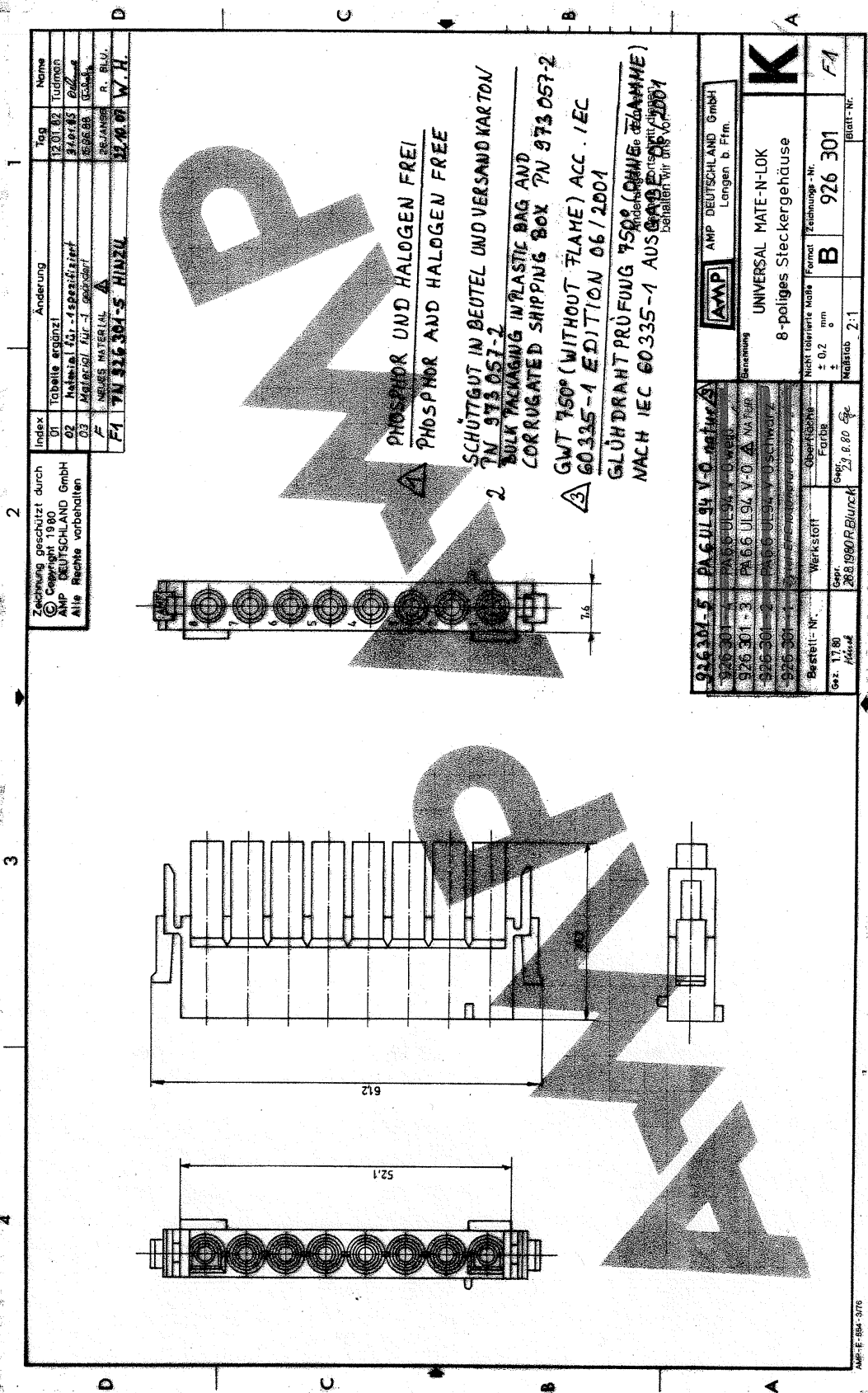


FIG 362
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549



Zzeichnung geschützt durch © Copyright 1980 AMP DEUTSCHLAND GmbH Alle Rechte vorbehalten		Index	Anderung	Tag	Name
01	Tabelle ergänzt	01	12.01.82	Luchmann	
02	Material für -spezifiziert	02	17.07.85	Blum	
03	Material für - geändert	03	18.08.88	Blum	
F	NEUES MATERIAL	F	28.08.88	R. Blum	
F1	7N 926.301-S HINZU	F1	12.09.89	W.H.	

PHOSPHOR UND HALOGEN FREI
PHOSPHOR AND HALOGEN FREE

SCHÜTTGUT IN BEUTEL UND VERSANDKARTON
7N 926.301-2

BULK PACKAGING IN PLASTIC BAG AND
CORRUGATED SHIPPING BOX 7N 926.301-2

GWT 750^g (WITHOUT FLAME) ACC. IEC
60335-1 EDITION 06/2001

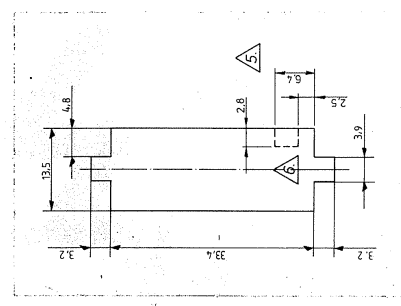
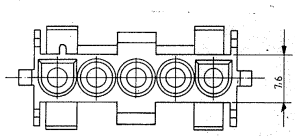
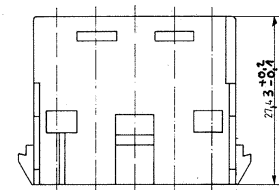
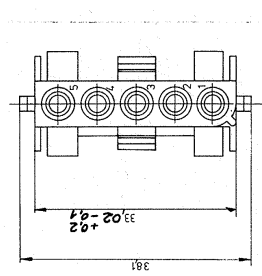
GLÜHDRAHT PRÜFUNG 750^g (OHNE FLAMME)
NACH IEC 60335-1 AUSGABE 06/2001
behalten für uns vor!

926.301-5 PA 6.6 UL 94 V-0 NATUR		AMP DEUTSCHLAND GmbH Lengen b. Ffm.	
926.301-1 PA 6.6 UL 94 V-0	926.301-3 PA 6.6 UL 94 V-0 A NATUR	UNIVERSAL MATE-N-LOK 8-poliges Steckergehäuse	
926.301-2 PA 6.6 UL 94 V-0 SCHWARZ	926.301-4 PA 6.6 UL 94 V-0 SCHWARZ	Formal Zeichnungs-Nr. B 926 301	
Bestell-Nr.	Werkstoff	Nicht gehobene Maße ± 0,2 mm Verstärk. 2:1	
Grz. 17,80 Masse	Grz. 28,80 Masse	Beit-Nr. F1	

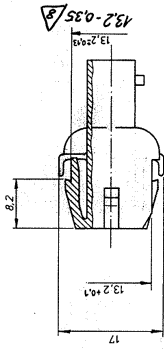
FIG 363
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

Index	Änderung	Tag	Name
01	Zahn, neu erstellt, ergänzt u. überichtigt	20.05.81	Tudman
02	Material für -1 spezifiziert	24.01.85	W. A.
03	Einbaumaß, ersetzt	18.02.85	W. A.
04	Material für -1 geändert	15.06.88	W. A.
05	NEUES MATERIAL	28.01.89	R. BLU.
G1 VARIANTE - 5 ADDED		8.7.06 W. BAH.	

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Montageausschnitt
 (Bestückungsseite)



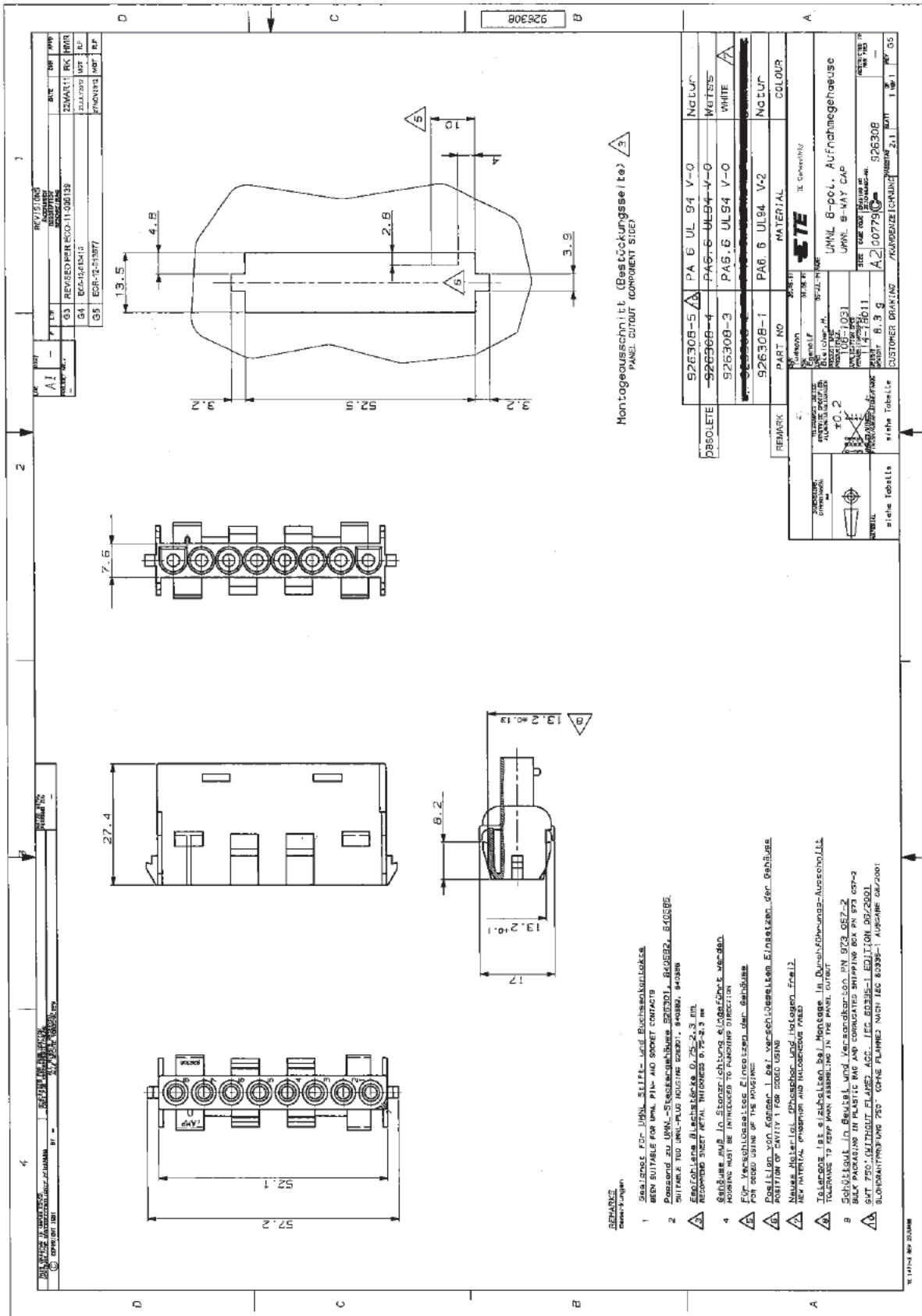
**8 GWT 750° (WITHOUT FLAME)
 Glühdrahtprüfung 750° ohne Flamme**

NEUES MATERIAL (PHOSPHOR UND HALOGEN FREI)
 Position von Kammer 1 bei verschlüsseltem Einsetzen der Gehäuse

- 1. Für verschlüsseltes Einsetzen der Gehäuse
- 2. Gehäuse muß in Stanzrichtung eingeführt werden
- 3. Empfohlene Blechstärke 0.75 - 2.3 mm
- 4. Passend zu UMNL-Steckergehäuse 926 299, 350 809, 480 763
- 5. Geeignet für UMNL Stift- und Buchsenkontakte

Änderungen, die dem technischen Folienentwurf entsprechen, behalten wir uns vor.

926 306-5	PA 6 UL 94-V2 natur	AMP DEUTSCHLAND GmbH Langen b Ffm
926 306-3	PA 6.6 UL 94-V0 A NATURAL	Universal MATE-N-LOK
926 306-1	PA 6.6 UL 94-V0 A	5-pol. Aufnahmegehäuse
Bestell-Nr.	Werkstoff	Formel
926 306-1	PA 6.6 UL 94-V0 A	926 306
Grz.	Oberrichte	Reinstab
20.05.81	Farbe	2:1
	GWR	
	1.6.81	



926308

FIG 366
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

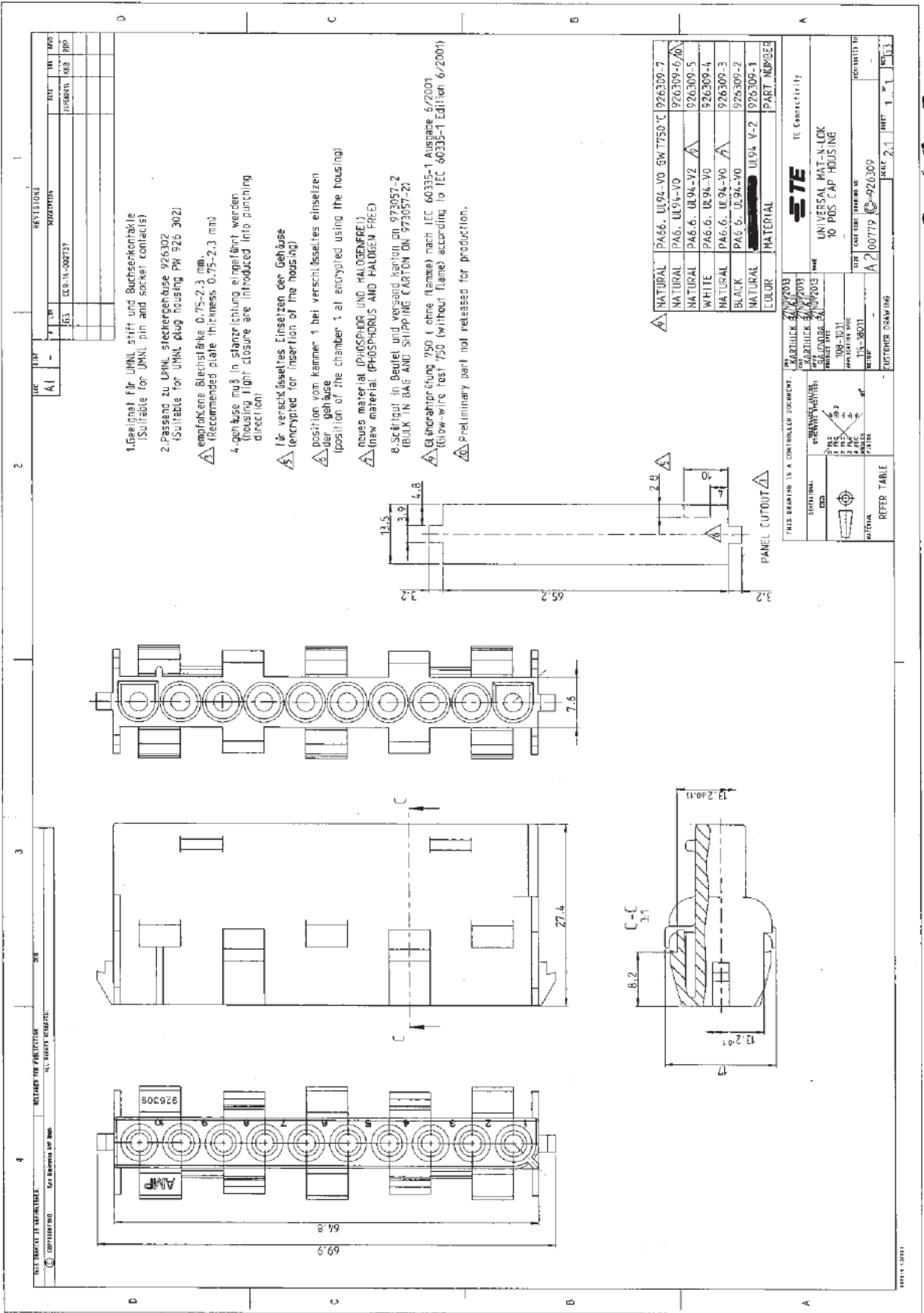
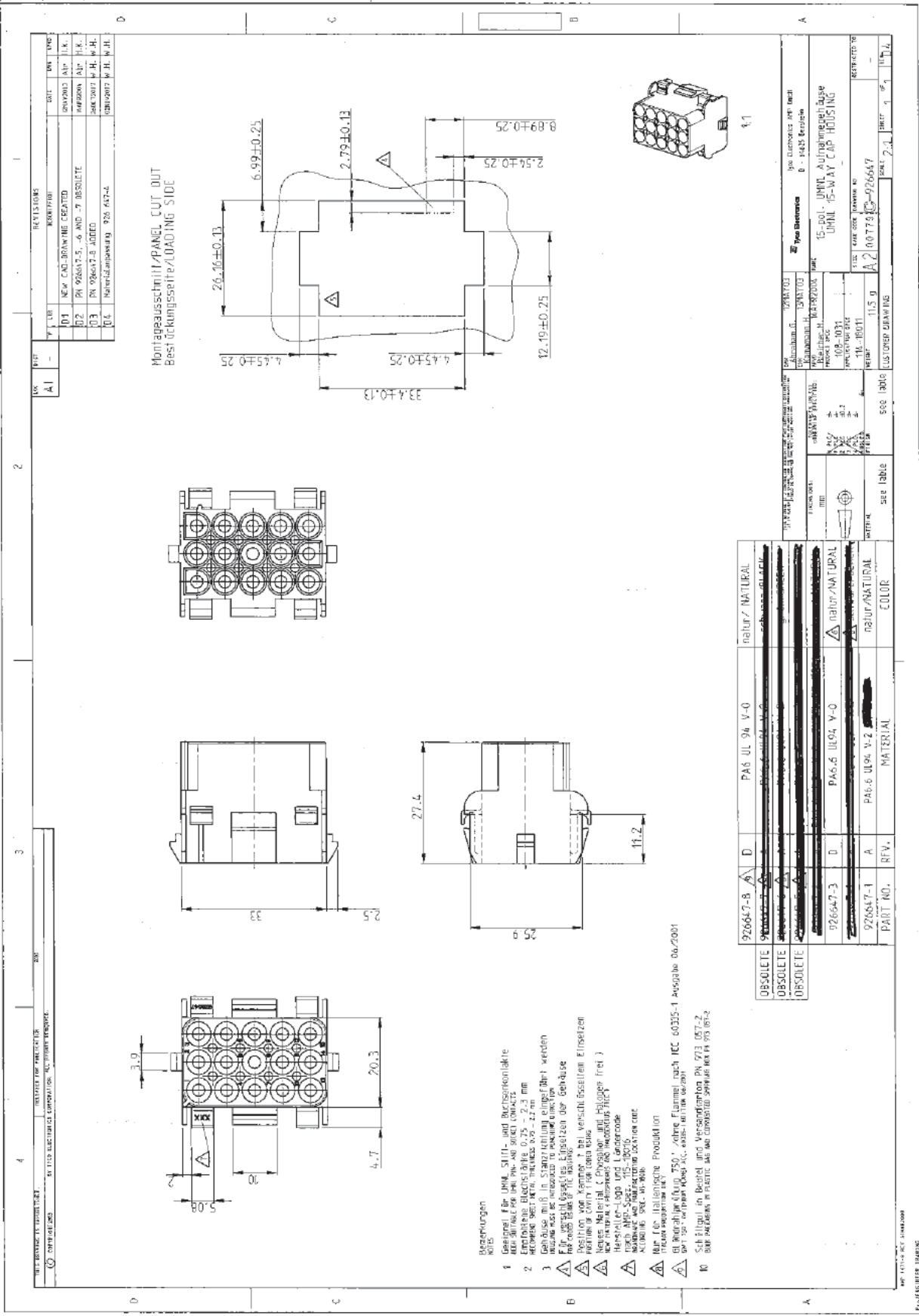
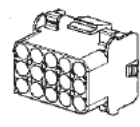


FIG 367
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

926309



Montageausschnitt/PANEL CUT OUT
Bestückungsseite/LOADING SIDE



REV	DATE	DESCRIPTION	BY	CHK
A1				

REV	DATE	DESCRIPTION	BY	CHK
01		NEW CAD DRAWING CREATED		
02		PH 926647-5, -6 AND -7 OBSOLETE		
03		PH 926647-8 ADDED		
04		Materialabweichung 926 647-4		

- Bezeichnungen
NOTES
- 1 Gezeichnet für UML, SHITL- und Buchsenkontakte
 - 2 Alle Maße für DIN 41618- und SOCKET CONTACTS
 - 3 Gehäuse mit 15 Stanzentlötlung einpfännt werden
 - 4 Gehäuse kann be einseitig oder beidseitig einpfännt werden
 - 5 Für einseitige Einlötlung
 - 6 Position von Kennung 7 bei versch. Positionen Einlötlungen
 - 7 Neues Material, C-Phosphor, und Halbleiter frei
 - 8 Nach App-Spec. 115-10076
 - 9 Gehäuse von Halbleitern befreit
 - 10 Mit 100% feuchtigkeitsbeständige Produktion
 - 11 Bei Brandgefahr (Vdp. 750°) ohne Flamme nach IEC 60335-1 ausgabe 06/2001
 - 12 Schlitze in Bestell- und Versandform nach PH 973 057-2
 - 13 Bei Packung in Plastic Bag and Compositio. SHIPWART BOX PH 973 057-2

REV	DATE	DESCRIPTION	BY	CHK
A1				

REV	DATE	DESCRIPTION	BY	CHK
01		NEW CAD DRAWING CREATED		
02		PH 926647-5, -6 AND -7 OBSOLETE		
03		PH 926647-8 ADDED		
04		Materialabweichung 926 647-4		

REV	DATE	DESCRIPTION	BY	CHK
A1				

REV	DATE	DESCRIPTION	BY	CHK
A1				

REV	DATE	DESCRIPTION	BY	CHK
A1				

REV	DATE	DESCRIPTION	BY	CHK
A1				

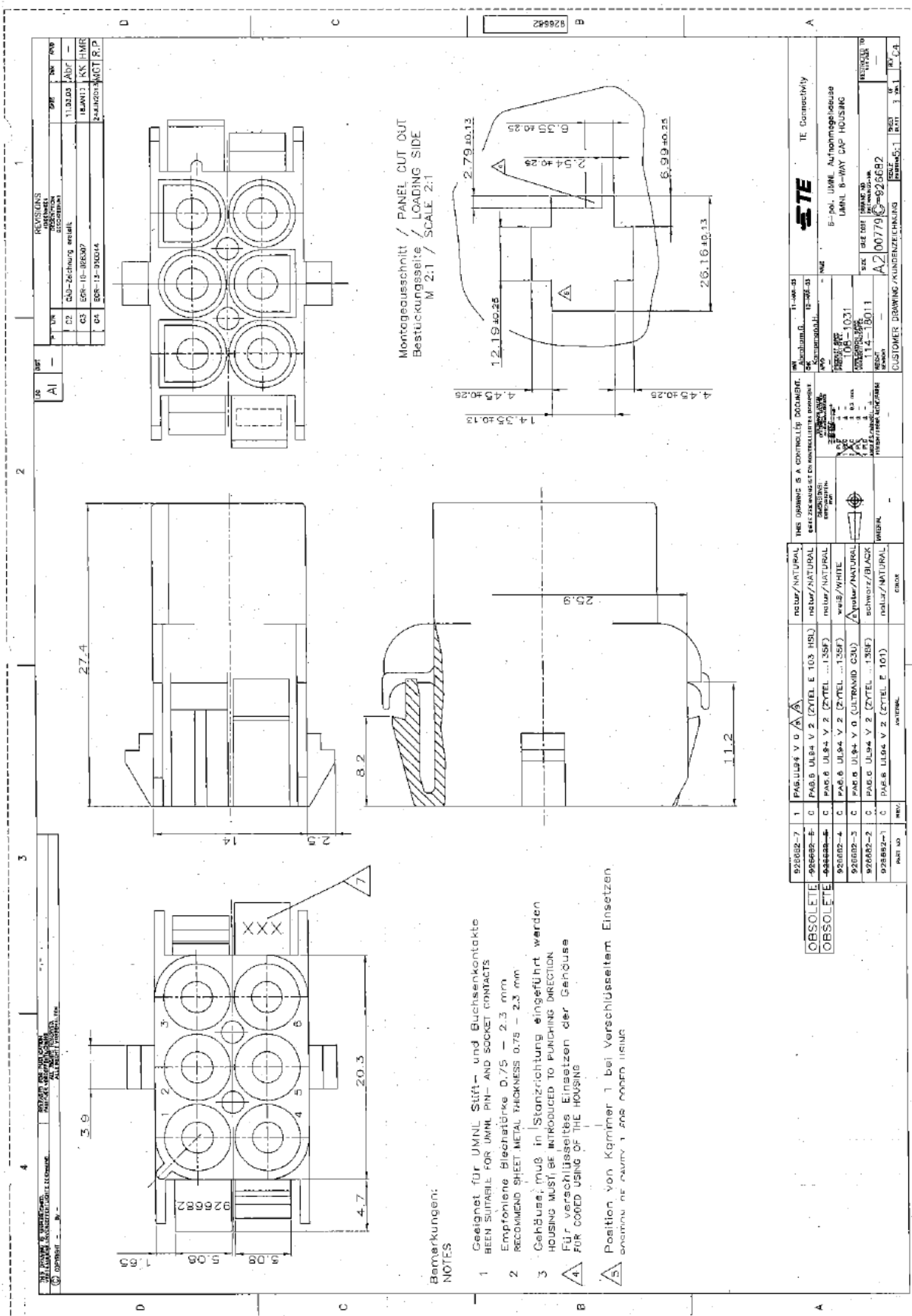
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A1				

REV	DATE	DESCRIPTION	BY	CHK
A1				

REV	DATE	DESCRIPTION	BY	CHK
A1				

REV	DATE	DESCRIPTION	BY	CHK
A1				

926647



- Bemerkungen:
NOTES
- 1 Geeignet für UMNL Stift- und Buchsenkontakte
BEEN SUITABLE FOR UMNL PIN- AND SOCKET CONTACTS
 - 2 Empfohlene Blechdicke 0,75 – 2,3 mm
RECOMMEND SHEET METAL THICKNESS 0,75 – 2,3 mm
 - 3 Gehäuse muß in Stanzrichtung eingeführt werden
HOUSING MUST BE INTRODUCED TO PUNCHING DIRECTION
 - 4 Für verschleißseitiges Einsetzen der Gehäuse
FOR CODED USING OF THE HOUSING
 - 5 Position von Kammern 1 bei Verschlüsseltam Einsetzen.
POSITION OF CAVITY 1 AND OTHER ILLING

926892-7	1	PAGE 6 UL94 V 0 (A)	natur/natural	11-04-03	11-04-03	11-04-03
926892-8 <td>0</td> <td>PAGE 6 UL94 V 2 (ZYTEL E 103 HRL)</td> <td>natur/natural</td> <td>11-04-03</td> <td>11-04-03</td> <td>11-04-03</td>	0	PAGE 6 UL94 V 2 (ZYTEL E 103 HRL)	natur/natural	11-04-03	11-04-03	11-04-03
926892-4 <td>C</td> <td>PAGE 6 UL94 V 2 (ZYTEL ...135F)</td> <td>natur/natural</td> <td>11-04-03</td> <td>11-04-03</td> <td>11-04-03</td>	C	PAGE 6 UL94 V 2 (ZYTEL ...135F)	natur/natural	11-04-03	11-04-03	11-04-03
926892-3 <td>C</td> <td>PAGE 6 UL94 V 0 (ULTRAVID CU)</td> <td>weiß/white</td> <td>11-04-03</td> <td>11-04-03</td> <td>11-04-03</td>	C	PAGE 6 UL94 V 0 (ULTRAVID CU)	weiß/white	11-04-03	11-04-03	11-04-03
926892-2 <td>C</td> <td>PAGE 6 UL94 V 2 (ZYTEL ...135F)</td> <td>natur/natural</td> <td>11-04-03</td> <td>11-04-03</td> <td>11-04-03</td>	C	PAGE 6 UL94 V 2 (ZYTEL ...135F)	natur/natural	11-04-03	11-04-03	11-04-03
926892-1 <td>C</td> <td>PAGE 6 UL94 V 2 (ZYTEL E 101)</td> <td>schwarz/black</td> <td>11-04-03</td> <td>11-04-03</td> <td>11-04-03</td>	C	PAGE 6 UL94 V 2 (ZYTEL E 101)	schwarz/black	11-04-03	11-04-03	11-04-03

926892-1

Customer Drawing / KUNDENZEICHNUNG
REV. 1
DATE 11-04-03

STE
E-00, UMNL, Aufnahmehäuse
UMNL 8-WAY CAP HOUSING

REV. 1
DATE 11-04-03
BY: enr/ak

FIG 369
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

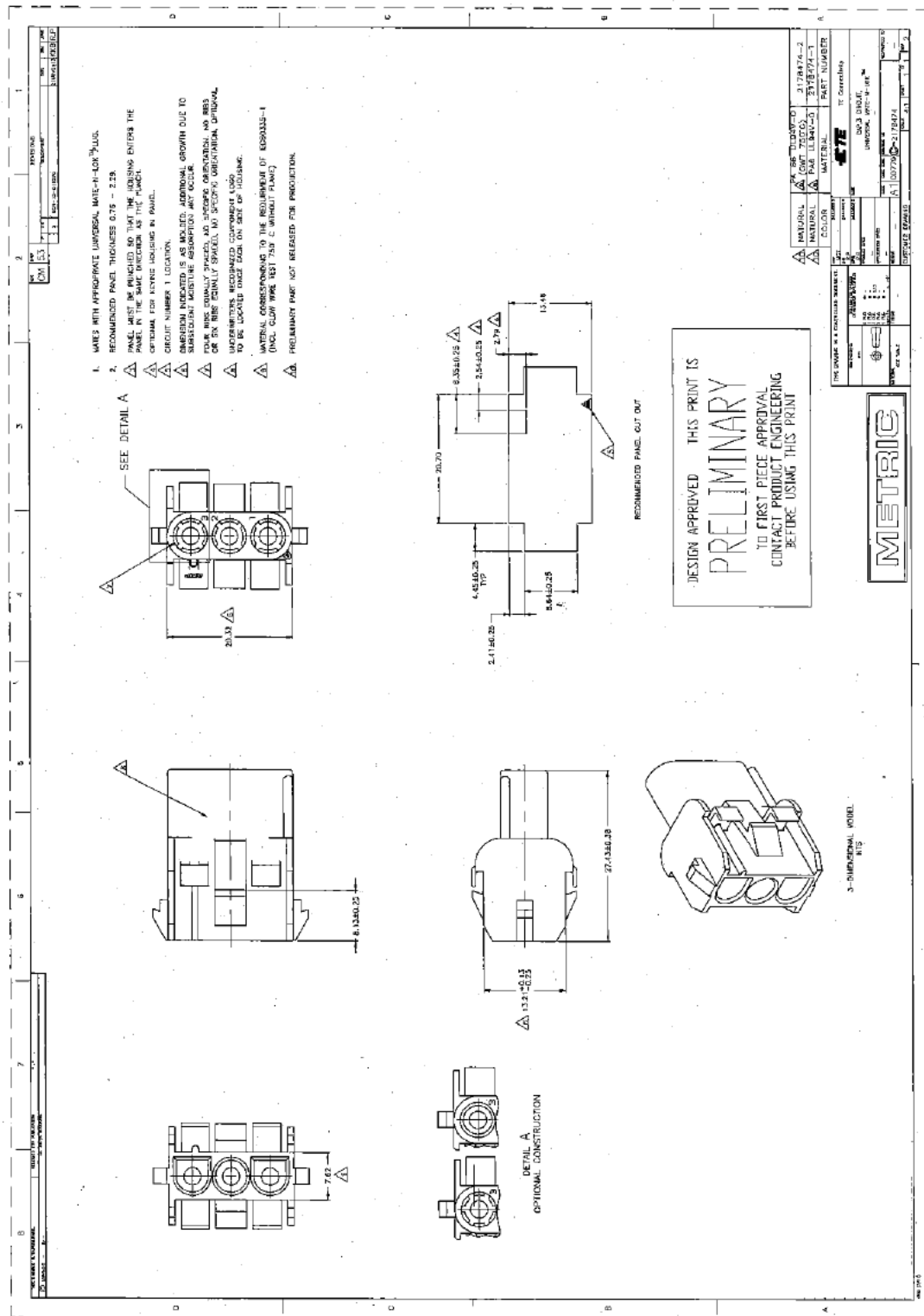
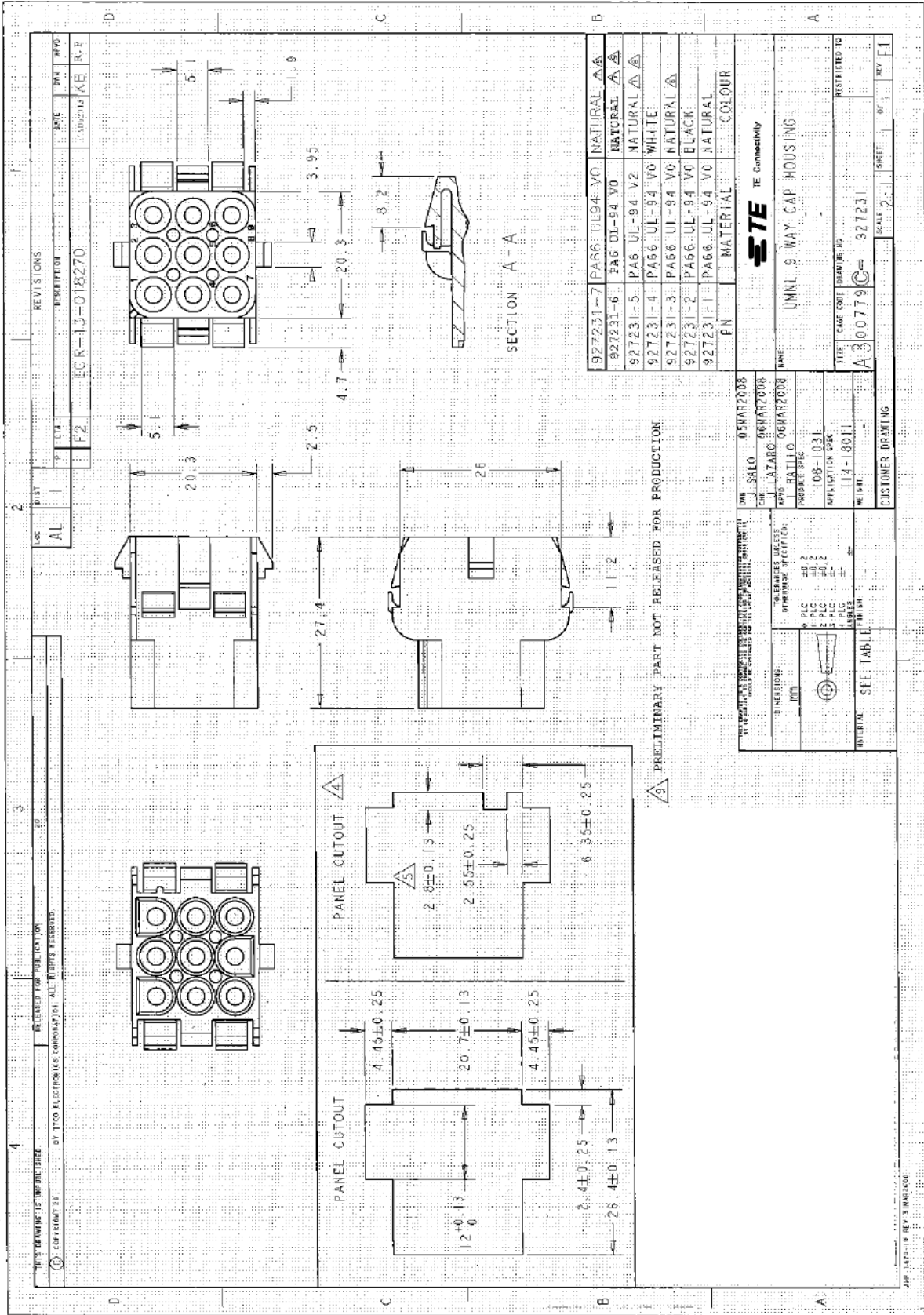


FIG 370
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549



REV. NO.		DATE	BY	CHK	APP
1					
DESCRIPTION: ECR-13-018270					

NO.	DATE	BY	CHK	APP
1				

REV. NO.		DATE	BY	CHK	APP
2					
DESCRIPTION: ECR-13-018270					

REV. NO.		DATE	BY	CHK	APP
3					
DESCRIPTION: ECR-13-018270					

REV. NO.		DATE	BY	CHK	APP
4					
DESCRIPTION: ECR-13-018270					

REV. NO.		DATE	BY	CHK	APP
5					
DESCRIPTION: ECR-13-018270					

REV. NO.		DATE	BY	CHK	APP
6					
DESCRIPTION: ECR-13-018270					

REV. NO.		DATE	BY	CHK	APP
7					
DESCRIPTION: ECR-13-018270					

NO.	DATE	BY	CHK	APP
1				

REV. NO.		DATE	BY	CHK	APP
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DESCRIPTION: ECR-13-018270					

REV. NO.		DATE	BY	CHK	APP
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DESCRIPTION: ECR-13-018270					

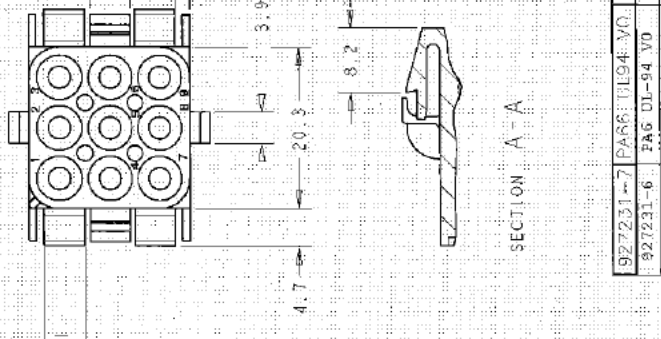
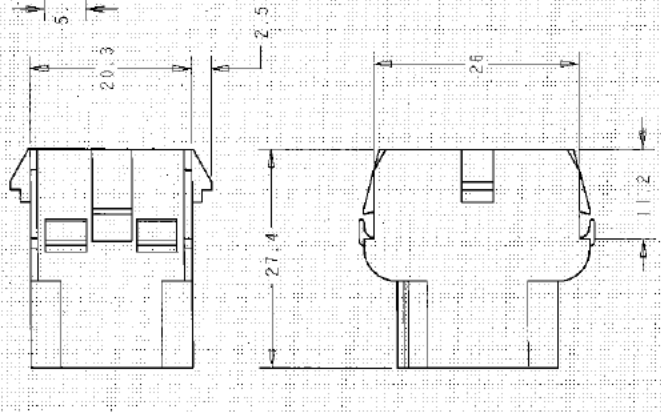
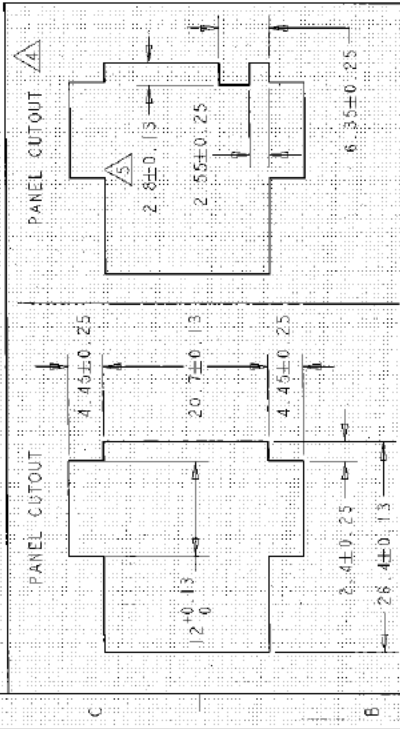
REV. NO.		DATE	BY	CHK	APP
3					
DESCRIPTION: ECR-13-018270					

THIS DRAWING IS UNCLASSIFIED
 DATE 08-14-2013 BY 60322 JAP/STW

UNCL 9 WAY CAP HOUSING
 TYPE: 9 WAY CAP HOUSING NO. 927231
 DATE: 03-07-93
 SCALE: 2:1
 SHEET: 1 OF 1

TE Connectivity
STE

PRELIMINARY PART NOT RELEASED FOR PRODUCTION



NO.	DATE	BY	CHK	APP
1				

NO.	DATE	BY	CHK	APP
1				

NO.	DATE	BY	CHK	APP
1				

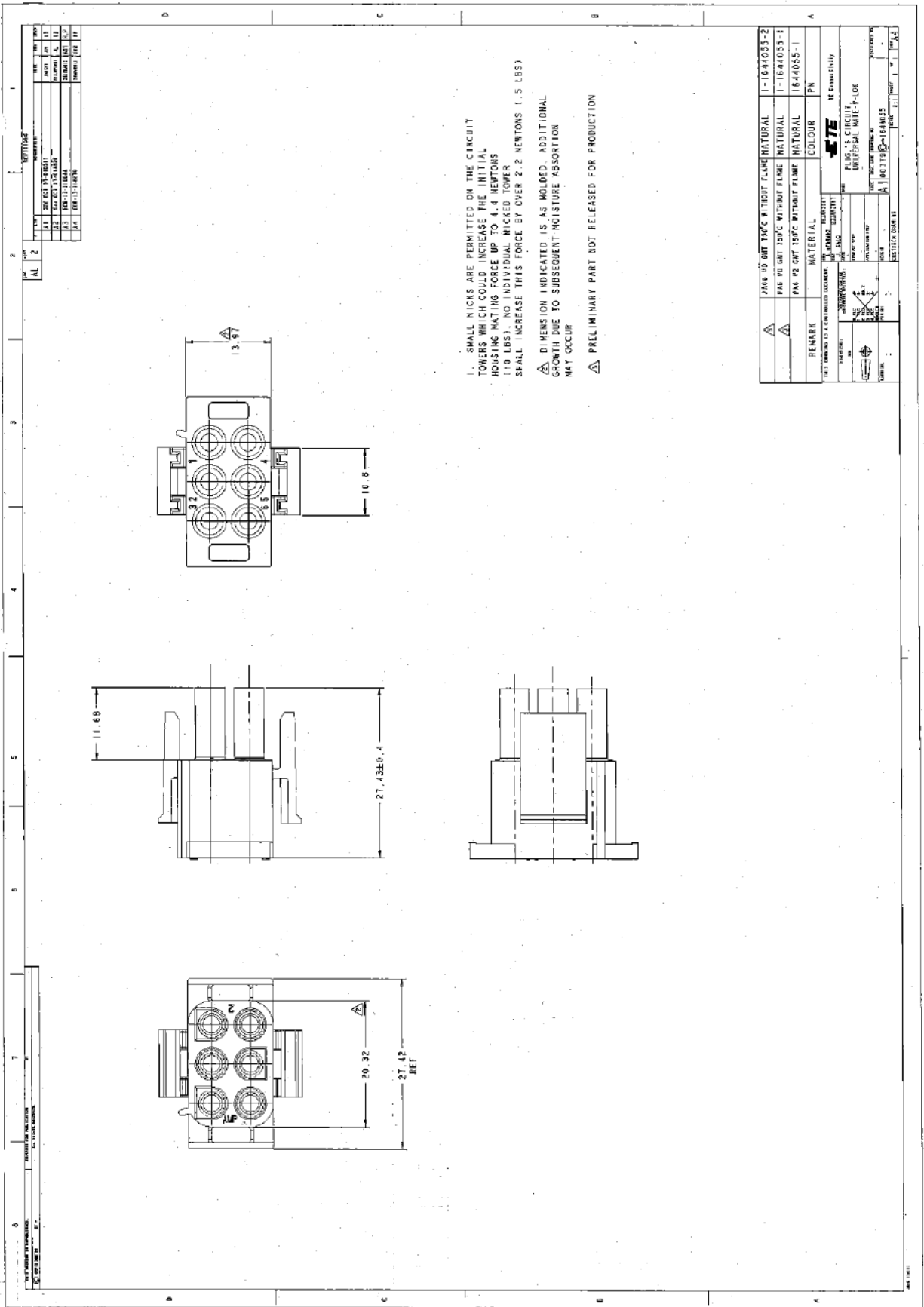


FIG 374
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

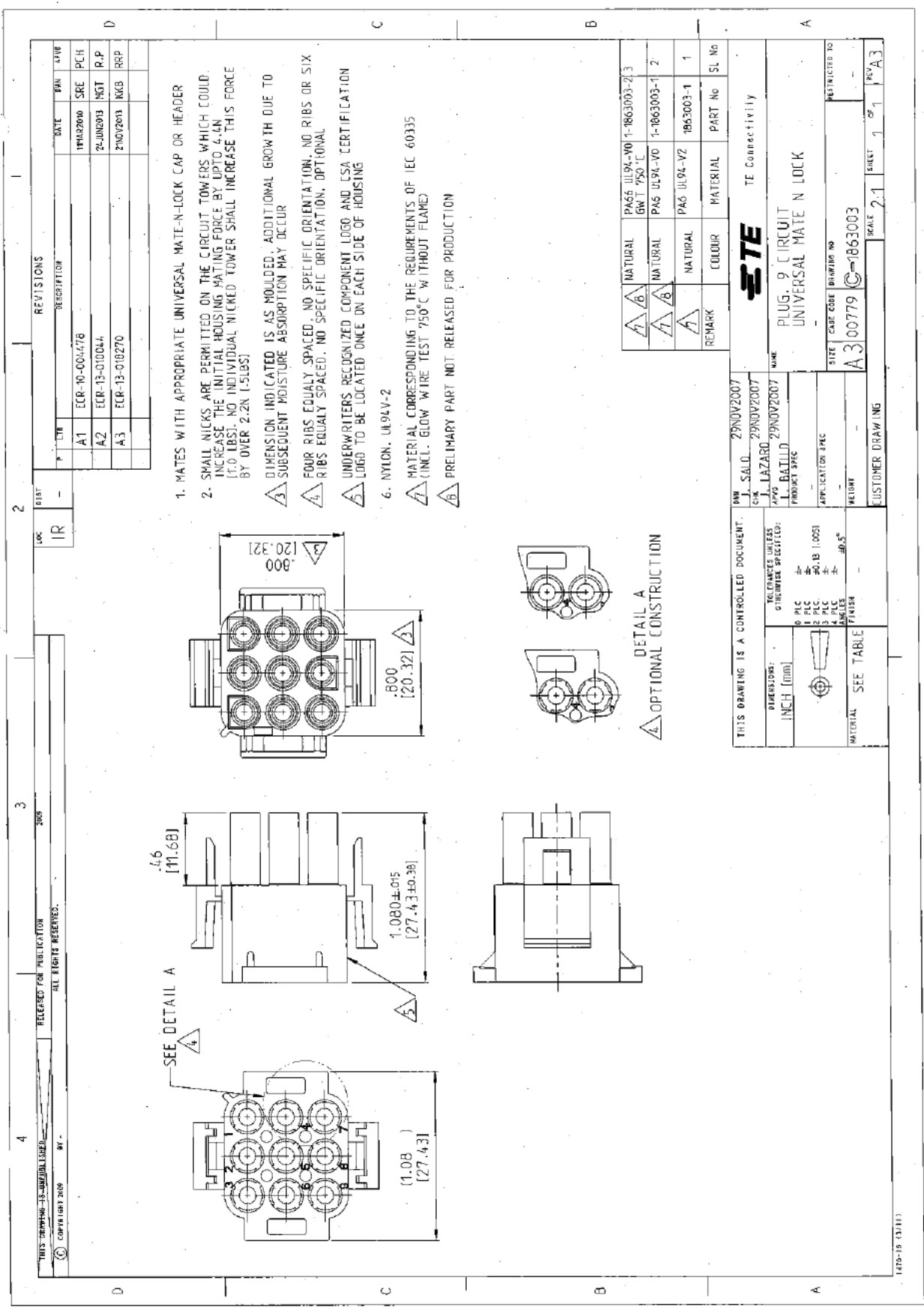


FIG 375
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

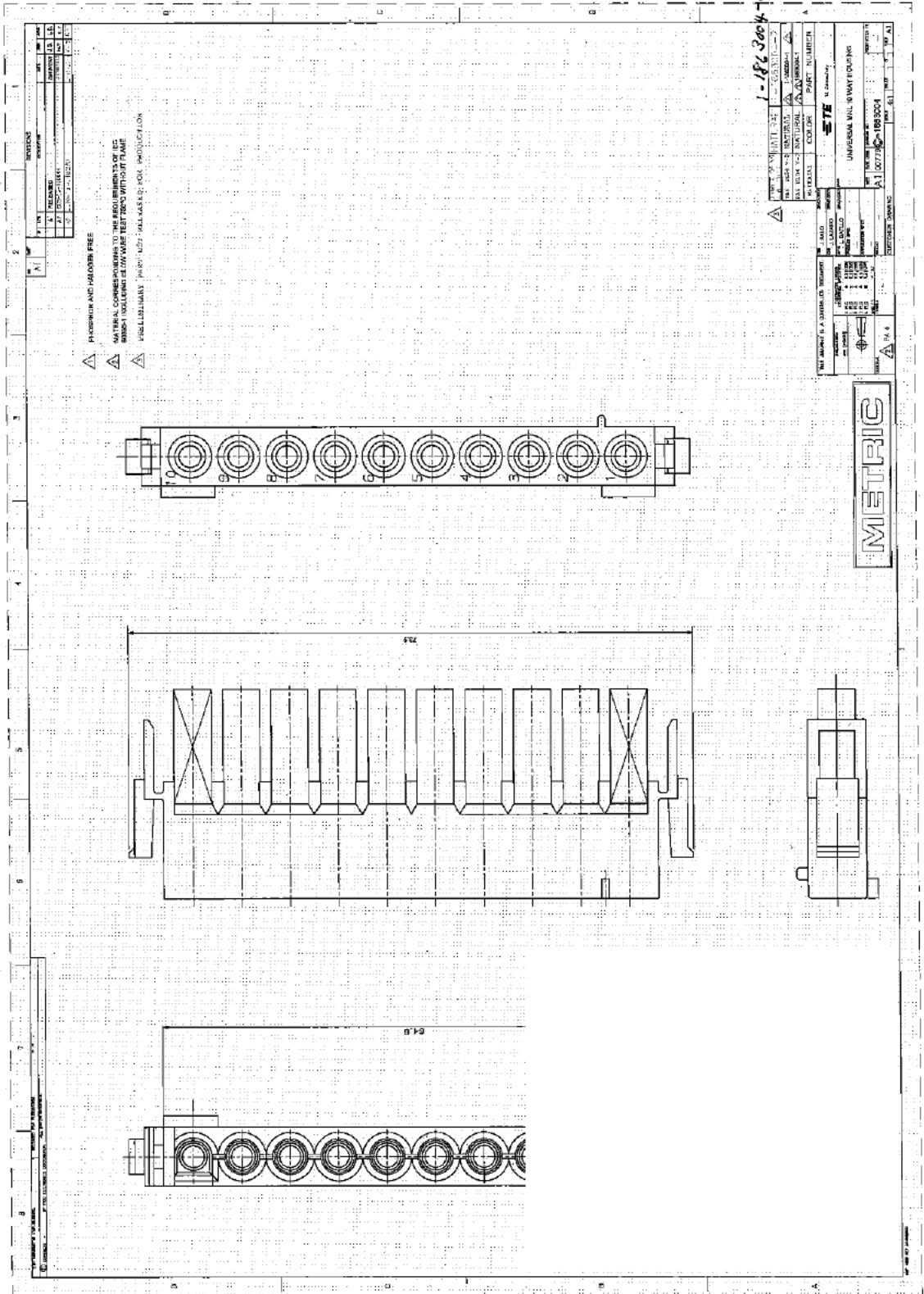


FIG 376
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

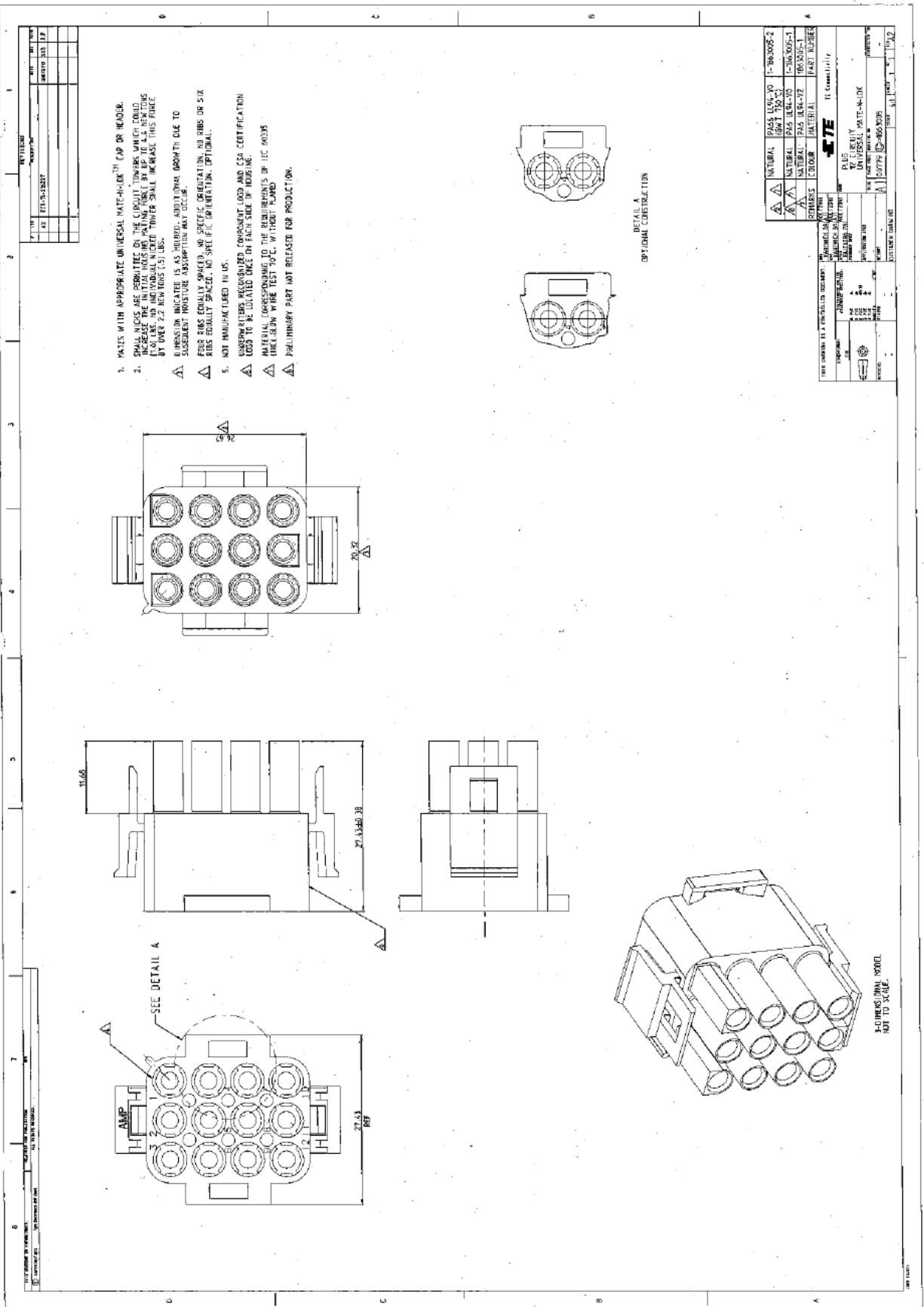


FIG 377
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

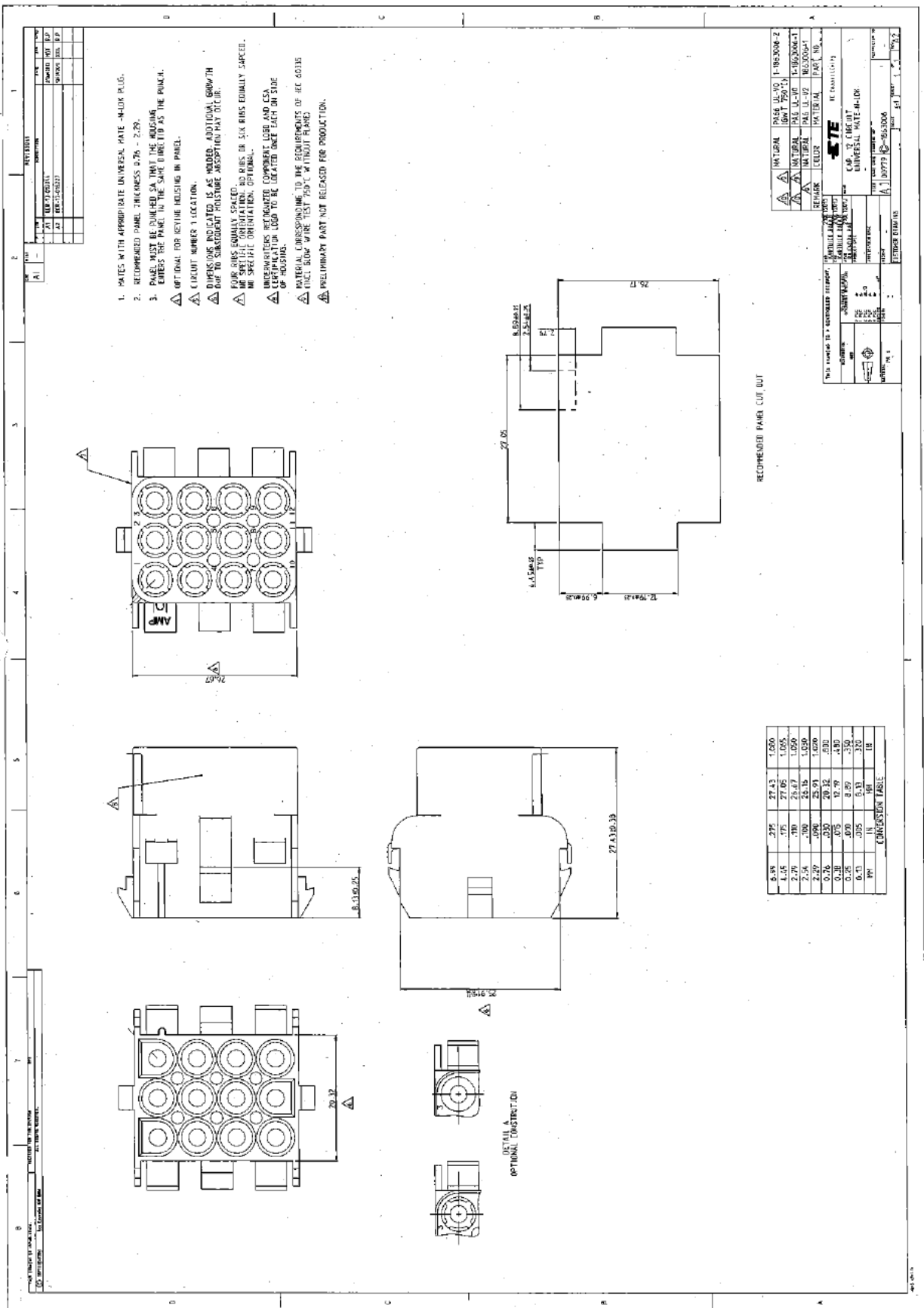


FIG 378
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549

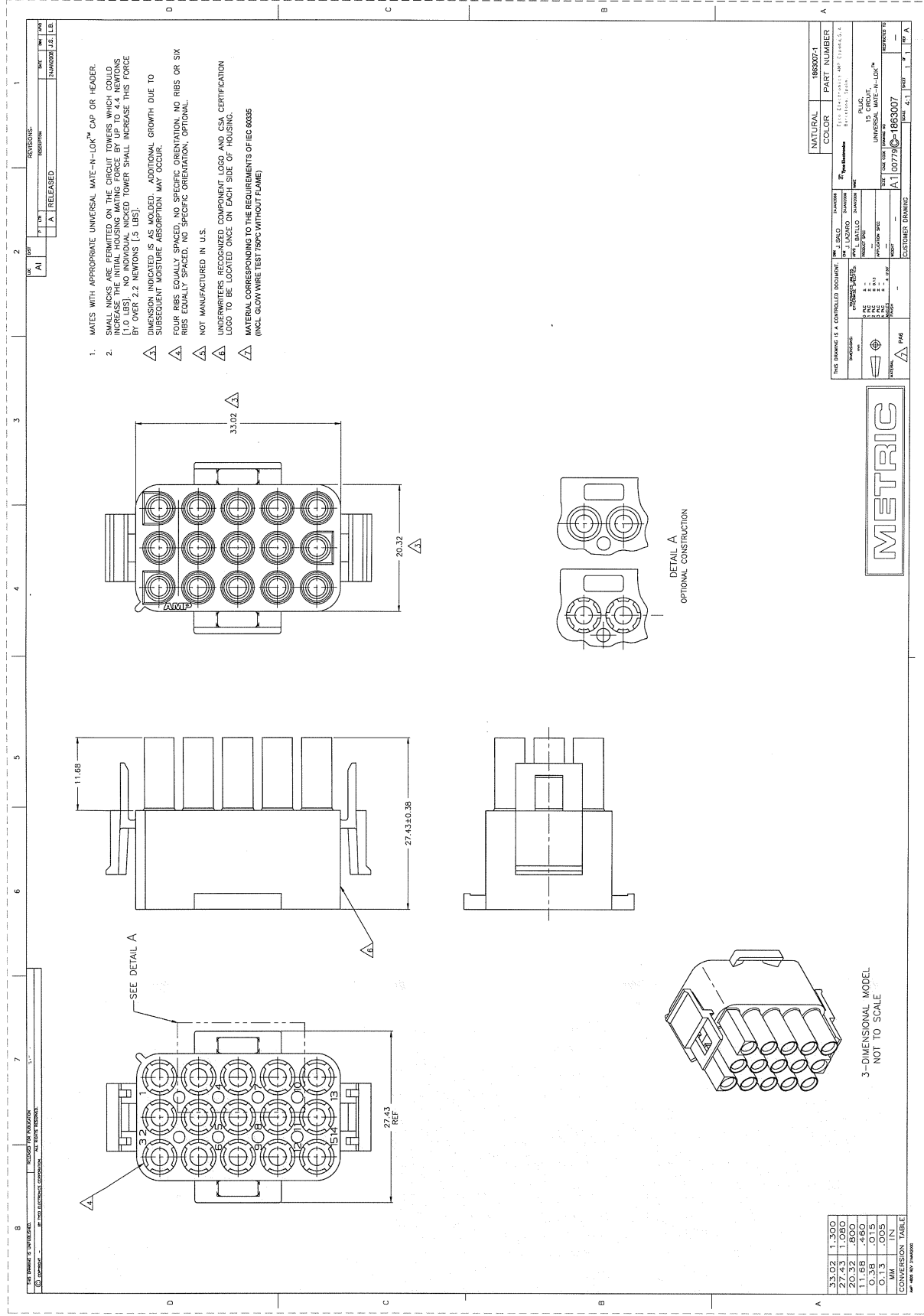


FIG 379
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549

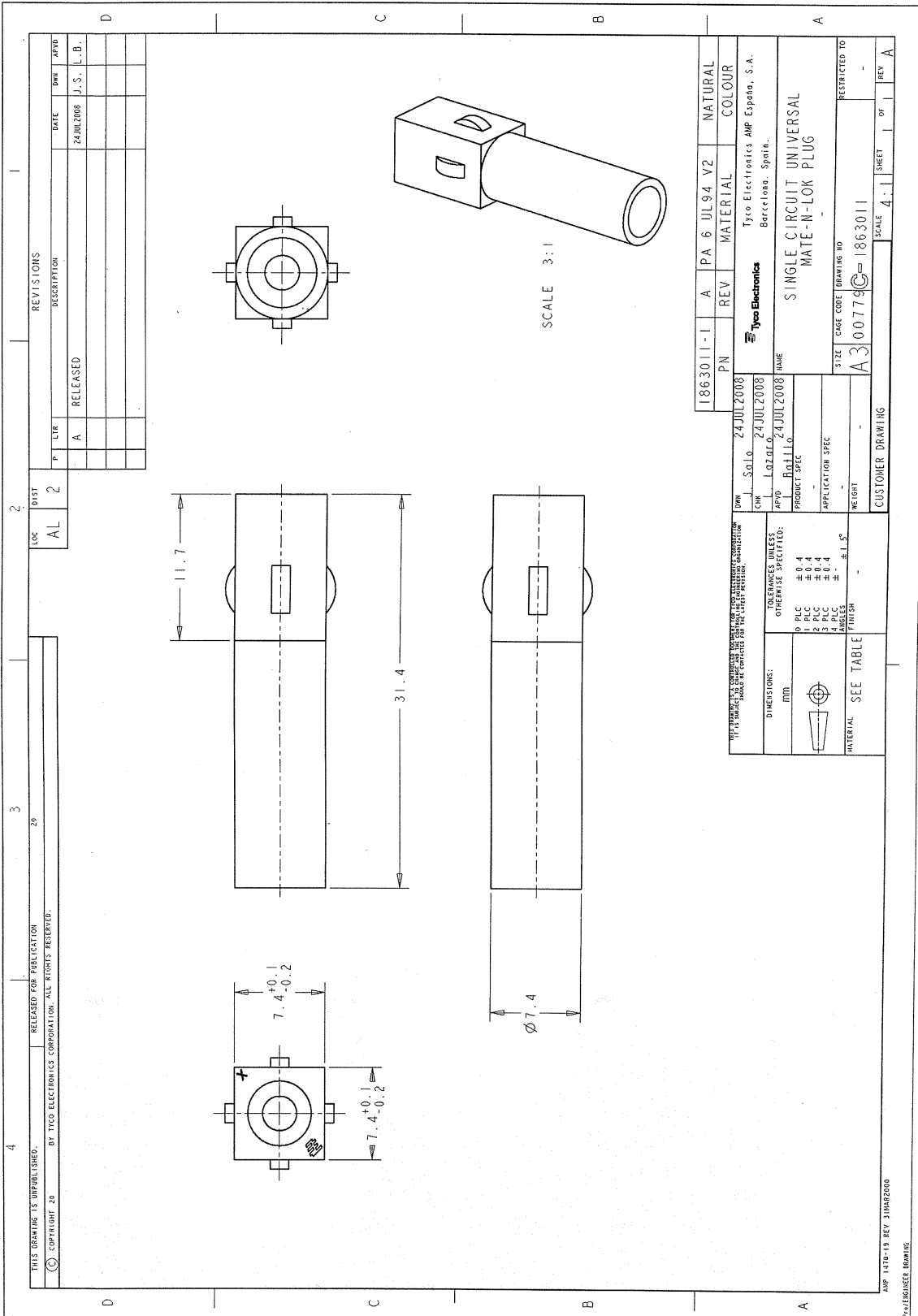


FIG 380
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

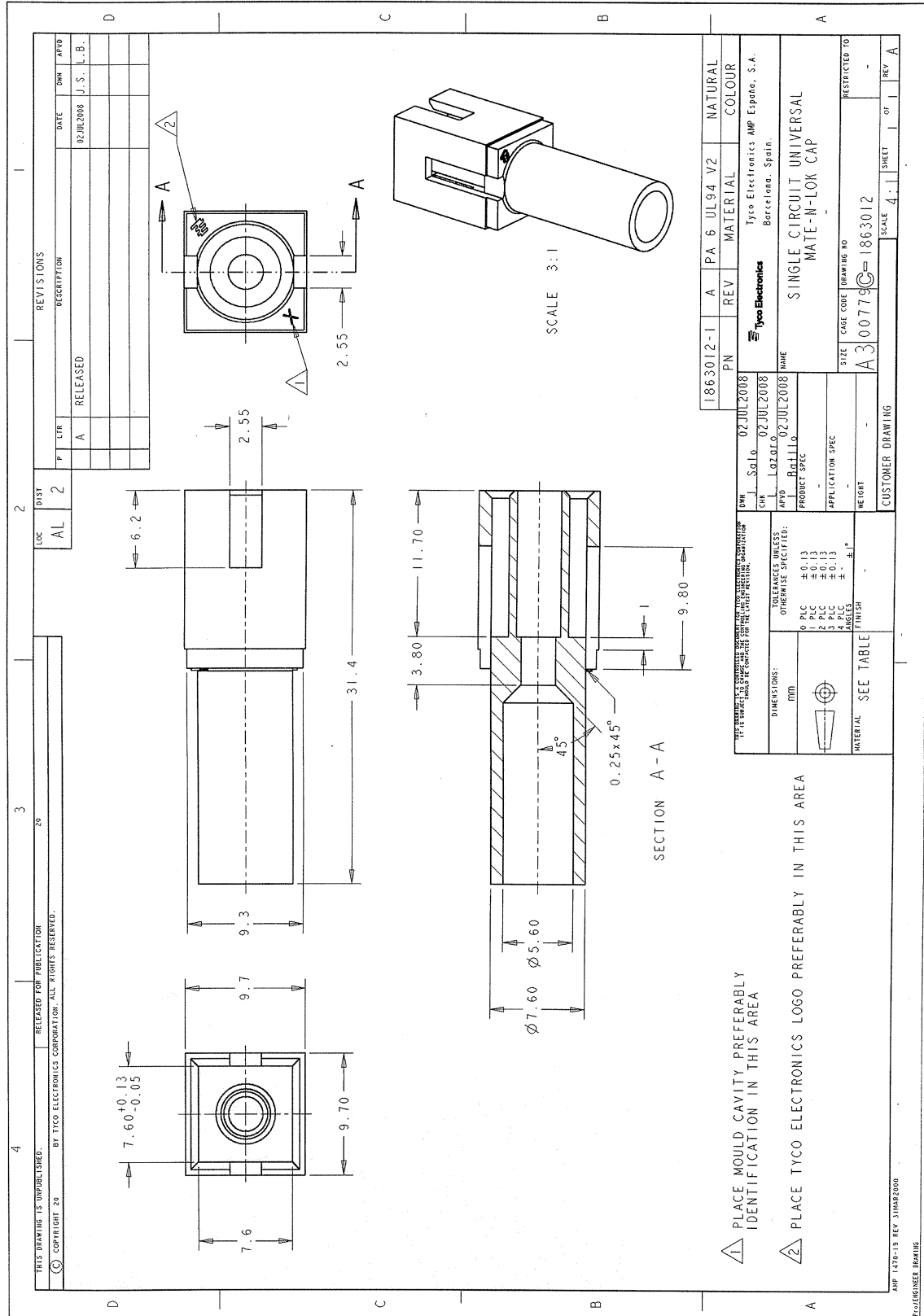


FIG 381
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

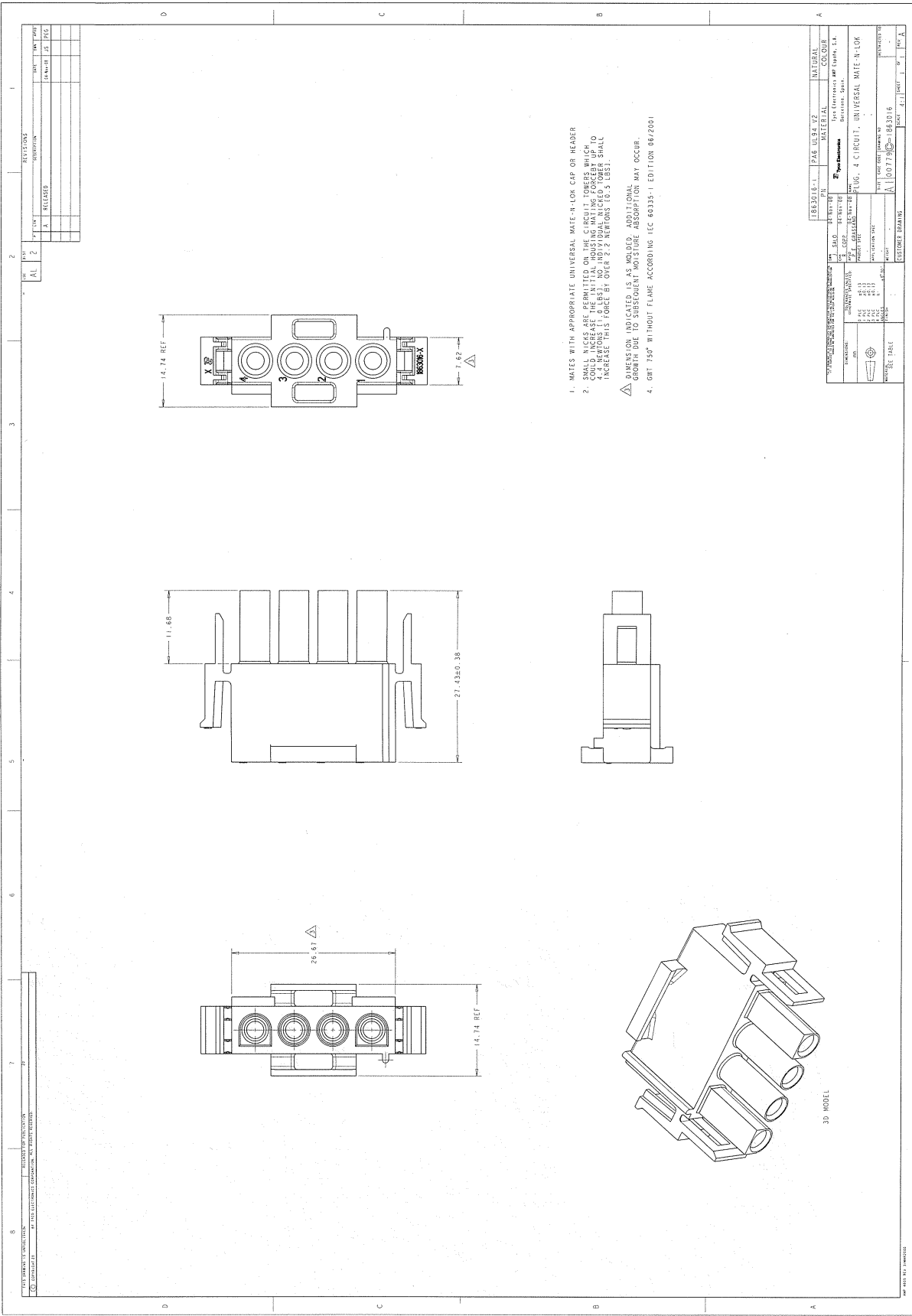
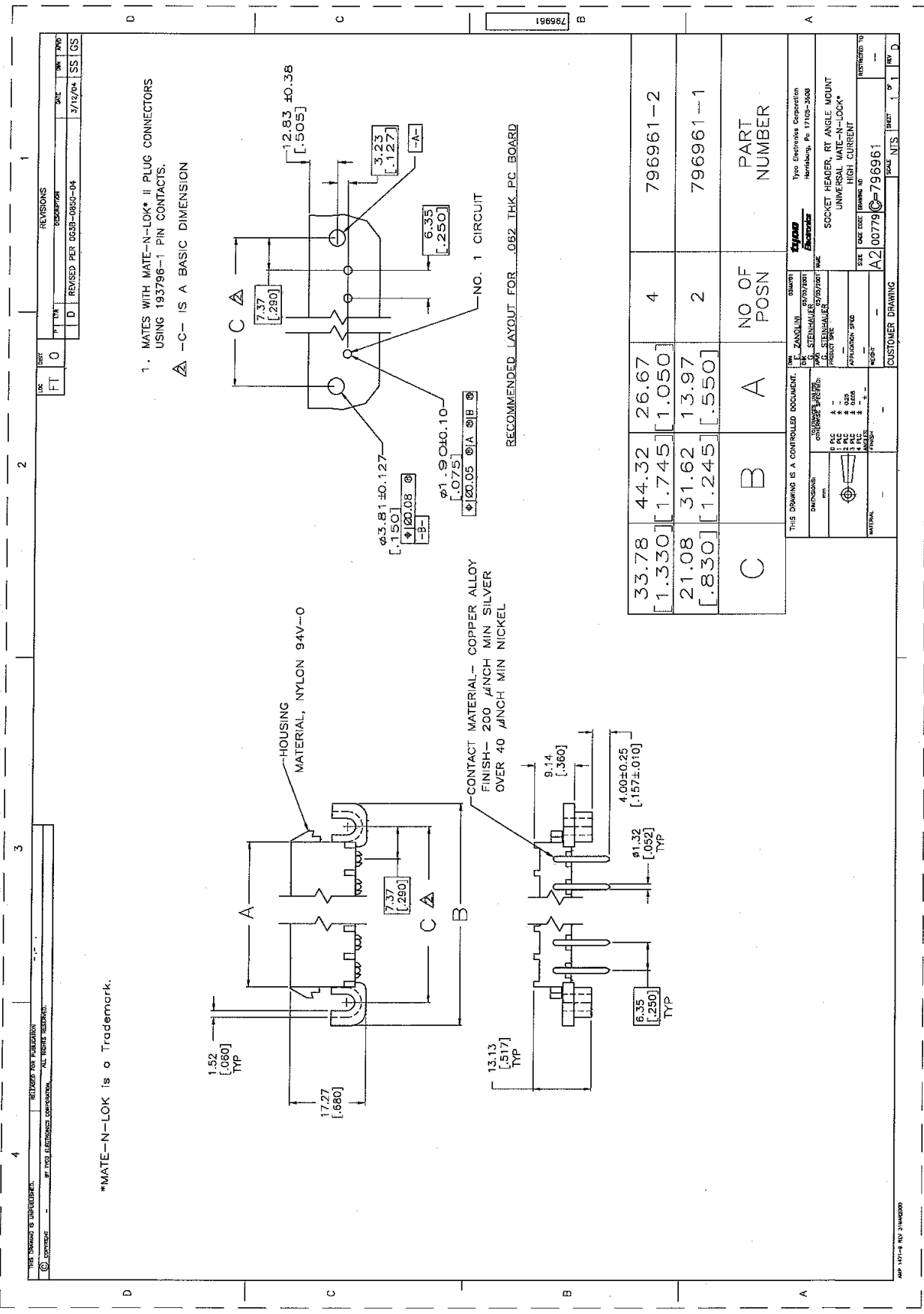


FIG 382
Project 70059209
Report 1030930
Contract 164196
LR 7189-549



REV	DATE	BY	CHK	APP
0				
1	3/12/04	SS	SS	GS

REV	DATE	BY	CHK	APP
0				
1	3/12/04	SS	SS	GS

REV	DATE	BY	CHK	APP
0				
1	3/12/04	SS	SS	GS

REV	DATE	BY	CHK	APP
0				
1	3/12/04	SS	SS	GS

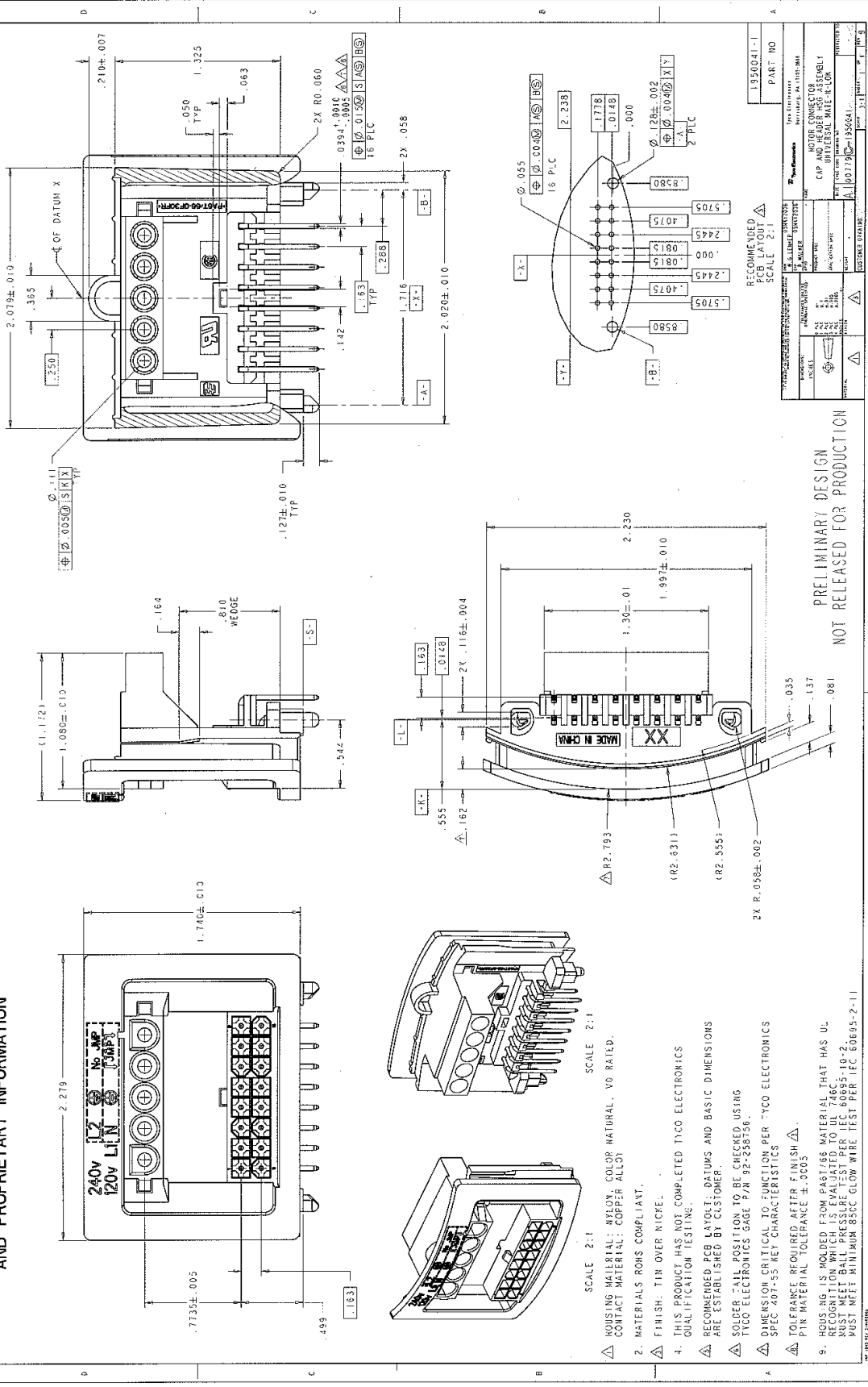
REV	DATE	BY	CHK	APP
0				
1	3/12/04	SS	SS	GS

REV	DATE	BY	CHK	APP
0				
1	3/12/04	SS	SS	GS

REV	DATE	BY	CHK	APP
0				
1	3/12/04	SS	SS	GS

FIG 383
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549

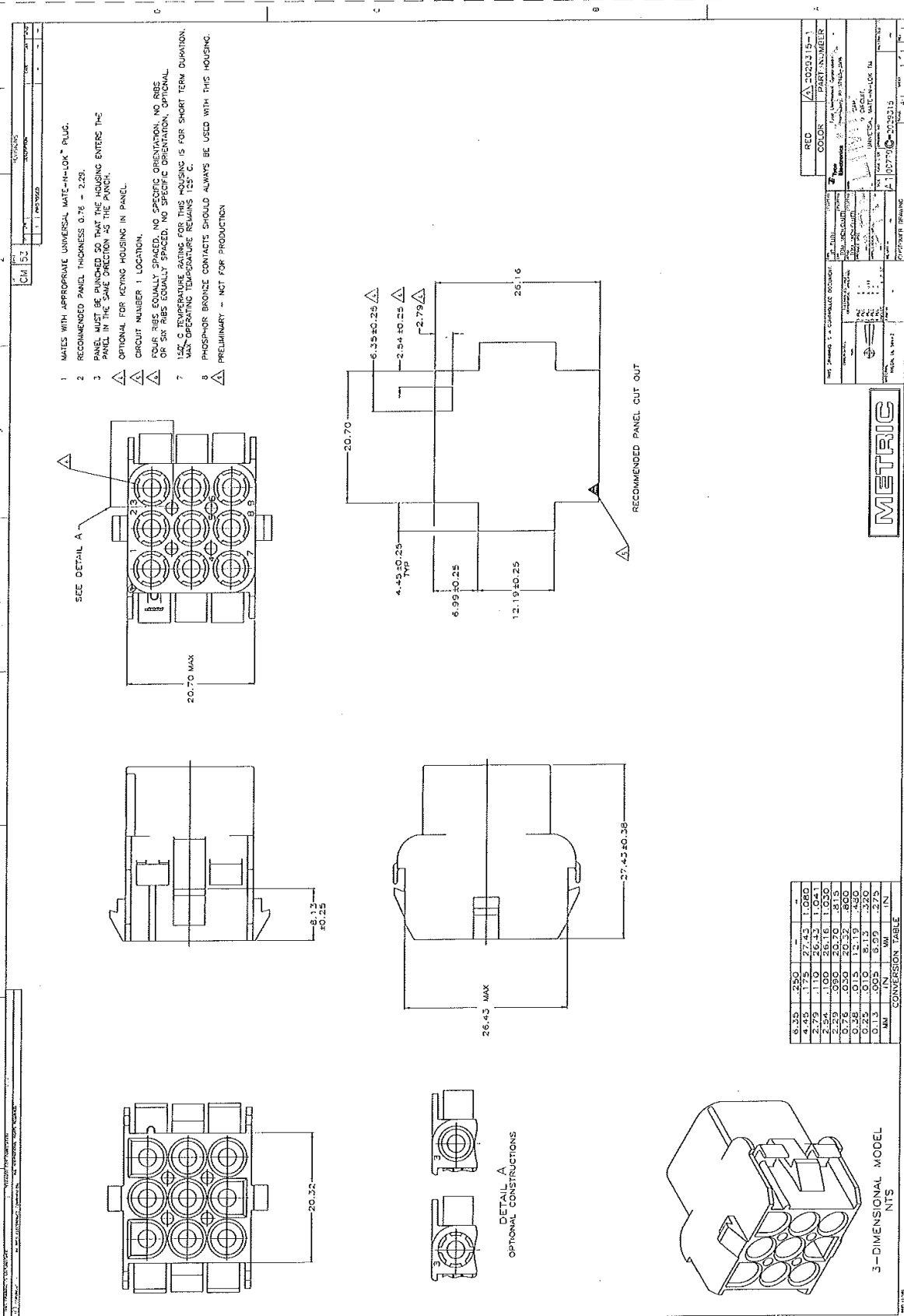
TYCO ELECTRONICS CORPORATION CONFIDENTIAL
AND PROPRIETARY INFORMATION



PRELIMINARY DESIGN
NOT RELEASED FOR PRODUCTION

1950041

FIG 384
Project 70059209
Report 1030930
Contract 164196
LR 7189-549



- 1 MATES WITH APPROPRIATE UNIVERSAL MATE-IN-LOK™ PLUG.
- 2 RECOMMENDED PANEL THICKNESS 0.76 = 2.28.
- 3 PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
- 4 OPTIONAL FOR KEYING HOUSING IN PANEL.
- 5 CIRCUIT NUMBER 1 LOCATION.
- 6 FOUR RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS EQUALLY SPACED. NO SPECIFIC ORIENTATION. OPTIONAL.
- 7 152°C TEMPERATURE RATING FOR THIS HOUSING IS FOR SHORT TERM DURATION. MAX OPERATING TEMPERATURE REMAINS 125°C.
- 8 PHOSPHOR BRONZE CONTACTS SHOULD ALWAYS BE USED WITH THIS HOUSING.
- 9 PRELIMINARY - NOT FOR PRODUCTION.

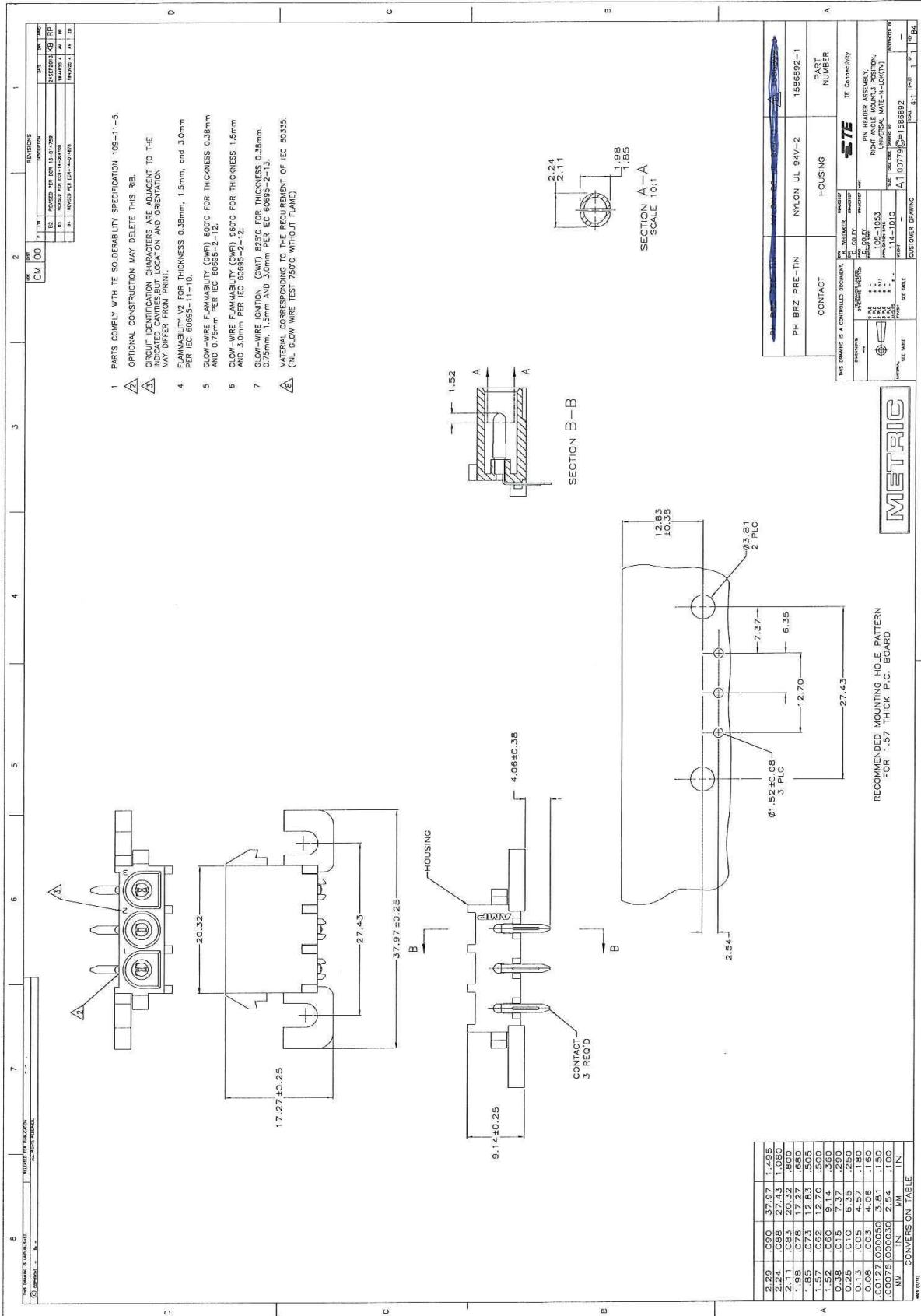
MM	IN	MM	IN
0.35	0.014	27.43	1.080
4.45	0.175	26.43	1.041
2.79	0.110	26.16	1.030
2.54	0.100	26.16	1.030
0.25	0.010	20.70	0.815
0.25	0.010	12.19	0.480
0.25	0.010	6.12	0.241
0.25	0.010	6.35	0.250
0.13	0.005	6.99	0.275

3-DIMENSIONAL MODEL
NTS



REV (A) 202315-1
 COLOR: BLACK
 PART NUMBER: 70059209
 MANUFACTURED BY: METRIC
 DATE: 10/23/15
 DRAWN BY: J. B. BROWN
 CHECKED BY: J. B. BROWN
 APPROVED BY: J. B. BROWN
 TITLE: 3-DIMENSIONAL MODEL
 PROJECT: 70059209
 SHEET: 1 OF 1

2029315



15866892

1586387

FIG 387
Project 70059209
Report 1030930
Contract 164196
LR 7189-549

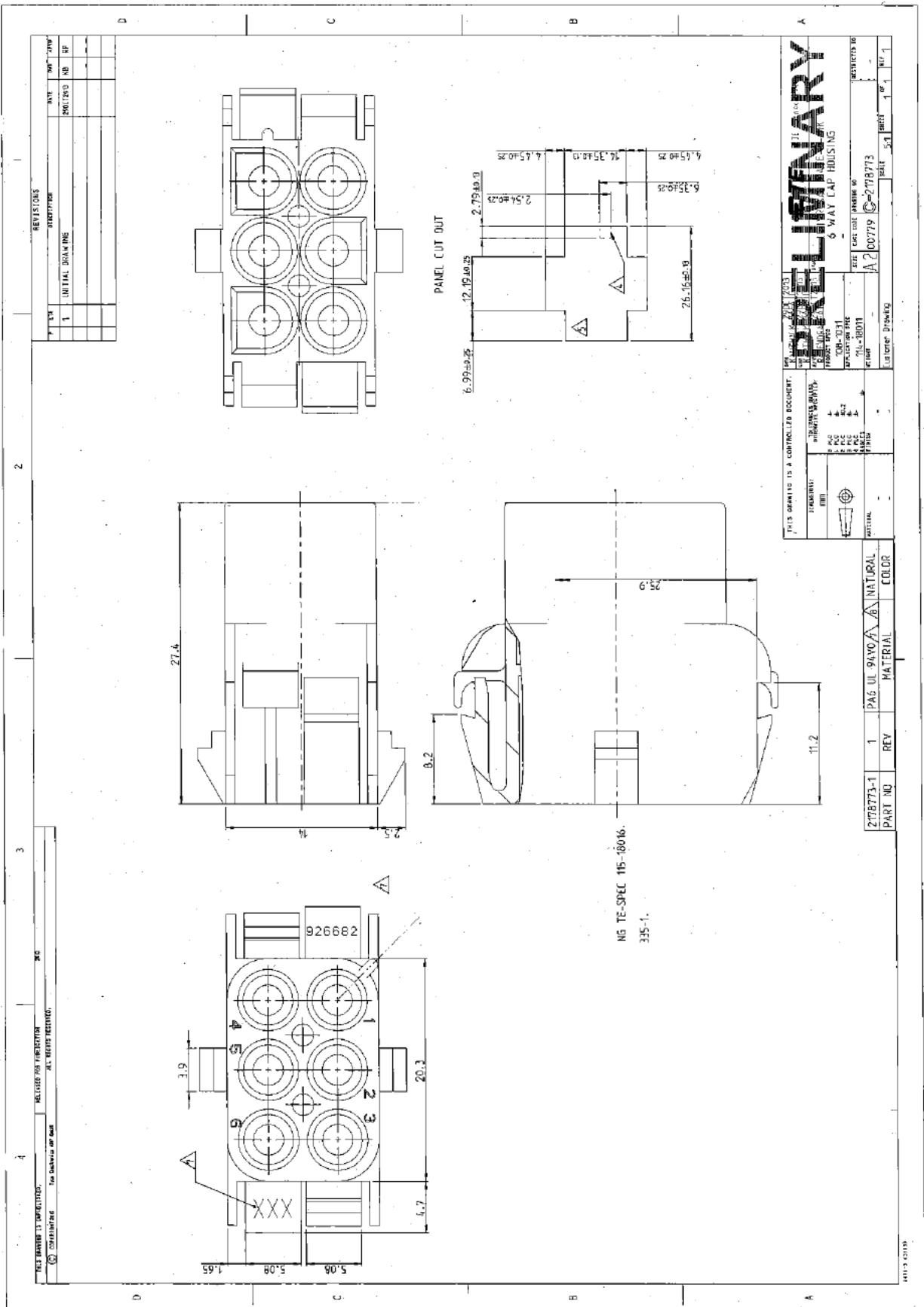
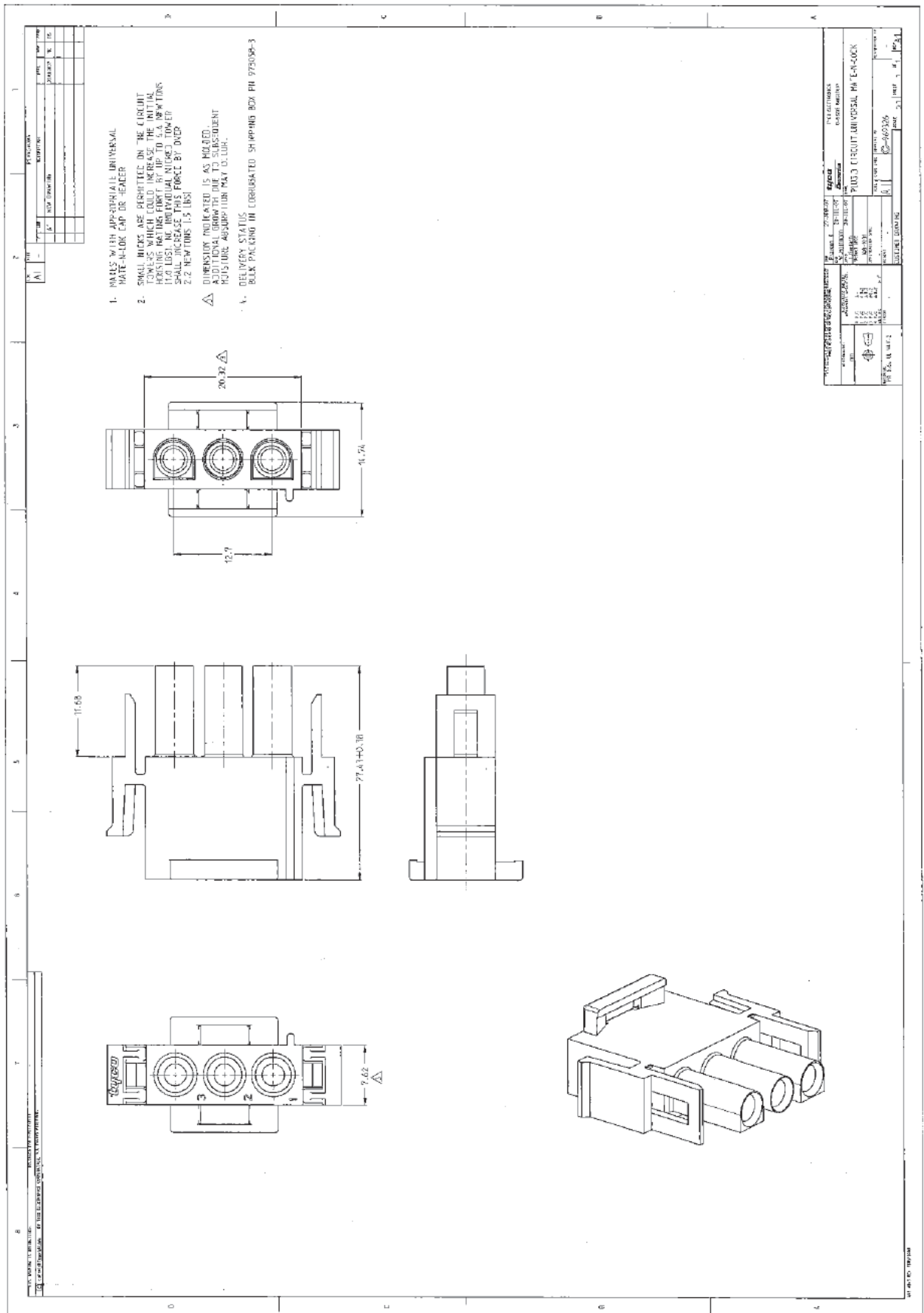
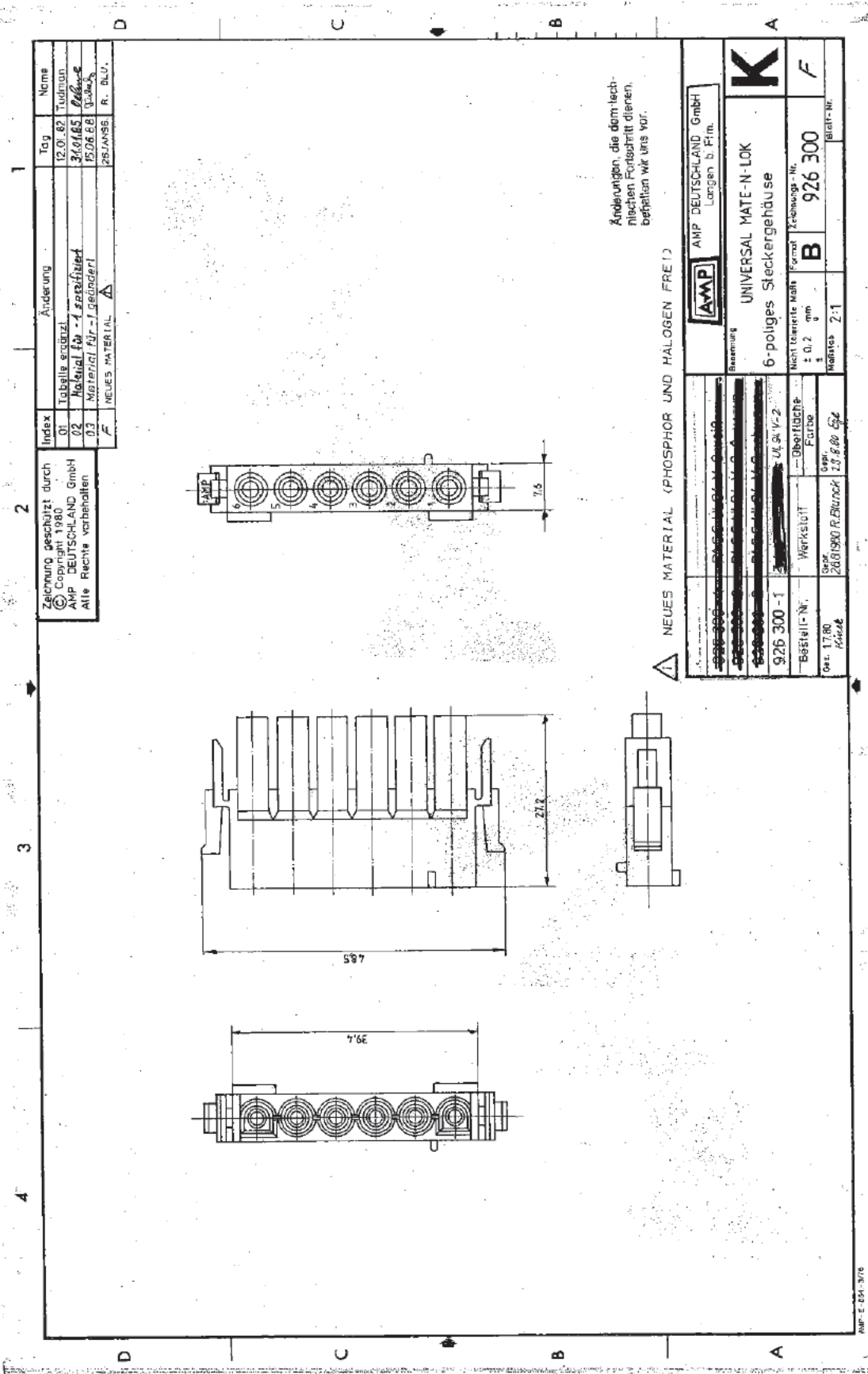


FIG 388
Project 70059209
Report 1030930
Contract 164196
LR 7189-549



969326

FIG 390
Project 70059209
Report 1030930
Contract 164196
LR 7189-549



Index	Änderung	Tag	Name
01	Tabella ergänzt	12.07.82	Tudman
02	Material für -1 spezifiziert	31.01.85	<i>P. B. G.</i>
03	Material für -1 geändert	15.06.88	<i>P. B. G.</i>
F	NEUES MATERIAL Δ	28.JAN.96	R. BLV.

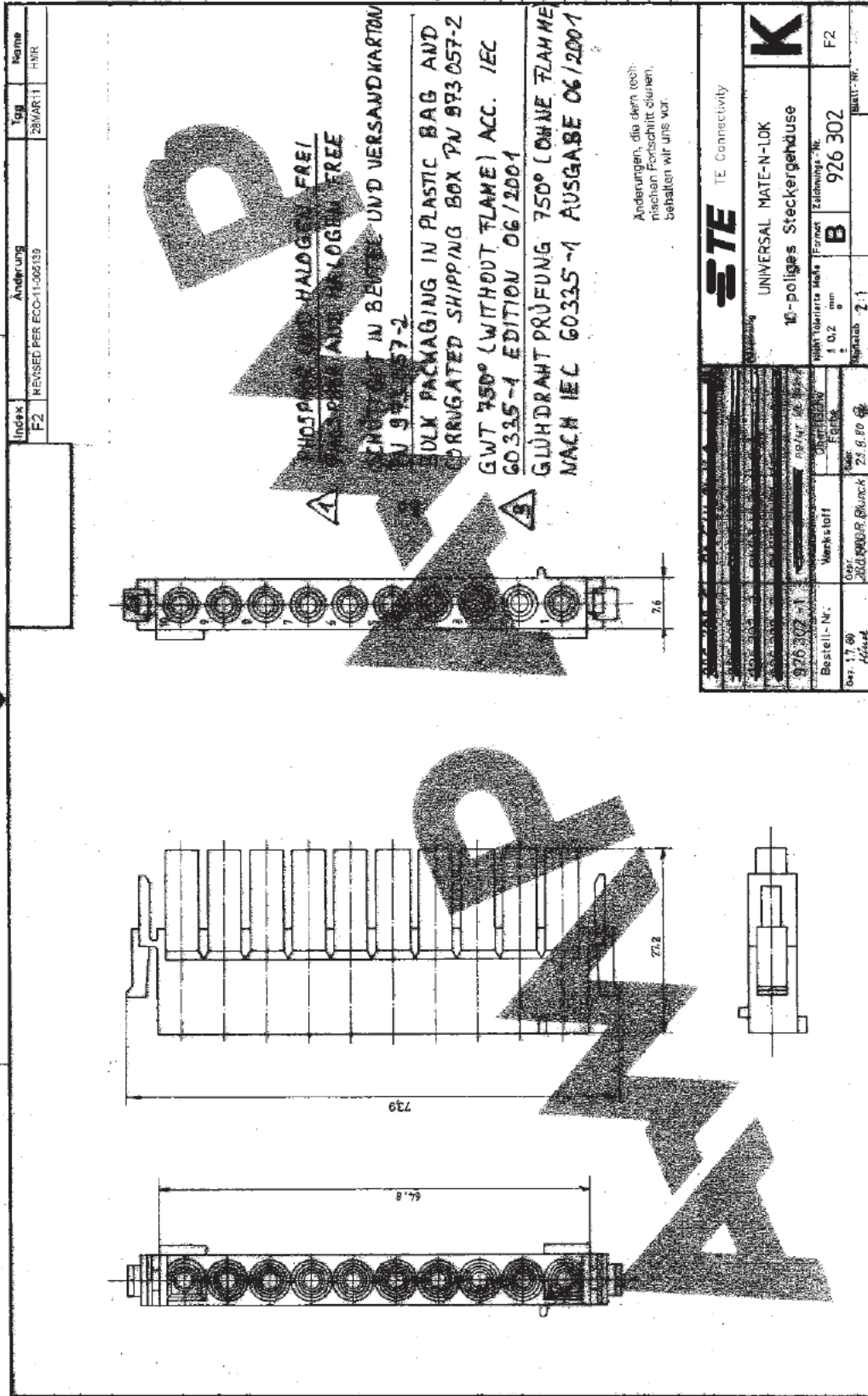
Zeichnung geschützt durch
 © Copyright 1980
 AMP DEUTSCHLAND GmbH
 Alle Rechte vorbehalten

Änderungen, die dem lech-
 nischen Fortschritt dienen,
 behalten wir uns vor.

Δ NEUES MATERIAL (PHOSPHOR UND HALOGEN FREI)

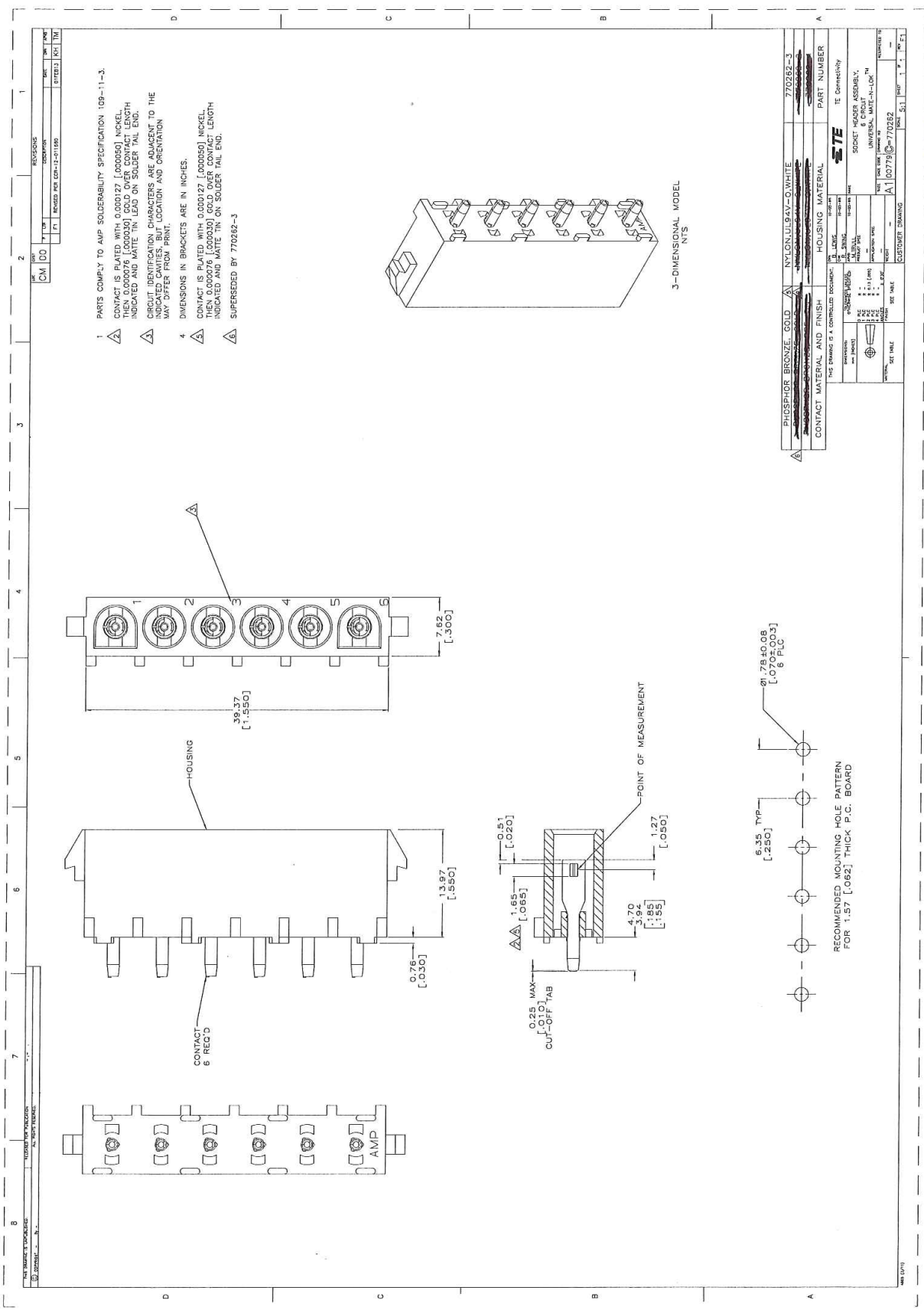
AMP DEUTSCHLAND GmbH Langen b. Pfim.		K
UNIVERSAL MATE-N-LOK 6-poliges Steckergehäuse		
Bezeichnung 6-poliges Steckergehäuse	Nicht leitende Maß- ± 0.2 mm Toleranz 2:1	B 926 300 Blatt-Nr.
926 300-1 Werkstoff 208190 R. Ebnack 23.8.80 GZ	Oberfläche Farbe	F
Teil-Nr. 1710 Maßstab	Werkstoff 208190 R. Ebnack 23.8.80 GZ	Blatt-Nr.

FIG 391
 Project 70059209
 Report 1030930
 Contract 164196
 LR 7189-549



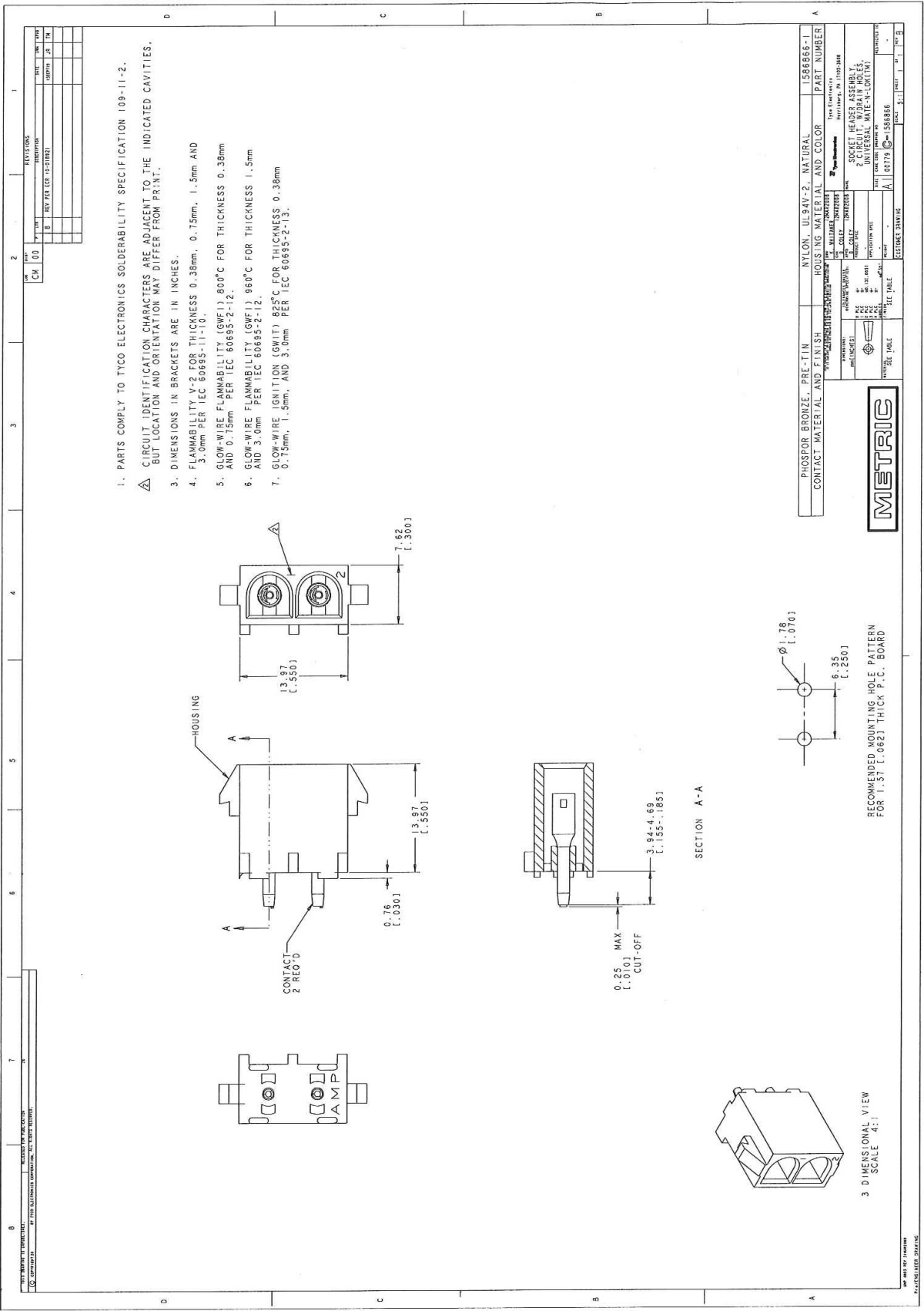
926302

FIG 392
Project 70059209
Report 1030930
Contract 164196
LR 7189-549



770262-3

FIG 394
 Project 70063977
 Report 1030930
 Contract 164196
 LR 7189-549



1. PARTS COMPLY TO TYCO ELECTRONICS SOLDERABILITY SPECIFICATION 109-11-2.
- △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.
4. FLAMMABILITY V-2 FOR THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER TEC 60695-11-10.
5. GLOW-WIRE FLAMMABILITY (GWI) 800°C FOR THICKNESS 0.38mm AND 0.75mm PER TEC 60695-2-12.
6. GLOW-WIRE FLAMMABILITY (GWI) 860°C FOR THICKNESS 1.5mm AND 3.0mm PER TEC 60695-2-12.
7. GLOW-WIRE IGNITION (GWI) 825°C FOR THICKNESS 0.38mm, 0.75mm, 1.5mm, AND 3.0mm PER TEC 60695-2-13.

REV	DATE	BY	CHKD	DESCRIPTION
1				REVISED TO PRINT
2				
3				
4				
5				
6				
7				

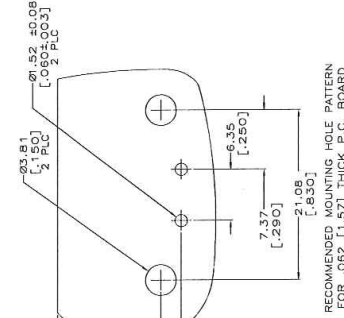
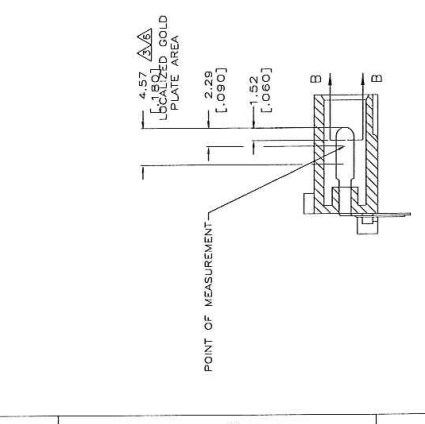
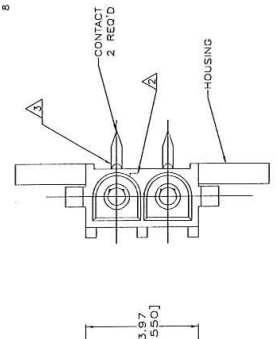
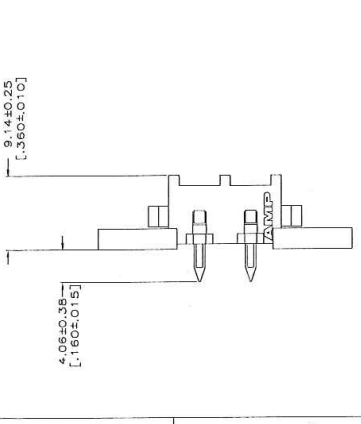
PHOSFOR BRONZE, PRE-FINISH	NYLON, UL94V-2, NATURAL	HOUSING MATERIAL AND COLOR	1586866-1
CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR	PART NUMBER
METRIC			
SOCIETY HEADQUARTERS UNIVERSAL MATE-MOUNTING			
PART NUMBER: 1586866 REV: 1 DATE: 08/79			

1586866

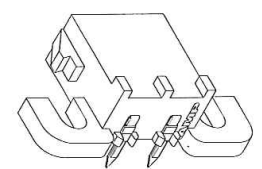
FIG 395

REV	DATE	BY	CHKD	DESCRIPTION
1	01/11/00	CM	00	REV PER ECN 10-011821
2	01/11/00	B	00	REV PER ECN 10-011821
3	01/11/00	JR	00	REV PER ECN 10-011821
4	01/11/00	JR	00	REV PER ECN 10-011821
5	01/11/00	JR	00	REV PER ECN 10-011821
6	01/11/00	JR	00	REV PER ECN 10-011821
7	01/11/00	JR	00	REV PER ECN 10-011821

- PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJUSTED TO THE INDICATED CAPTION; LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- OPTIONAL CONSTRUCTION MAY DELETE THIS RIB.
- DIMENSIONS IN BRACKETS ARE IN INCHES.
- FLAMMABILITY V2 FOR THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 60695-1-1-0.
- GLOW-WIRE FLAMMABILITY (GWFL) 80°C FOR THICKNESS 0.38mm AND 0.75mm PER EC 60695-2-1-2.
- GLOW-WIRE FLAMMABILITY (GWFL) 90°C FOR THICKNESS 1.5mm AND 3.0mm PER EC 60695-2-1-2.
- GLOW-WIRE IGNITION (GWT) B5C FOR THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER EC 60695-2-1-3.



RECOMMENDED MOUNTING HOLE PATTERN FOR .062 [1.57] THICK P.C. BOARD



3-DIMENSIONAL MODEL NIS

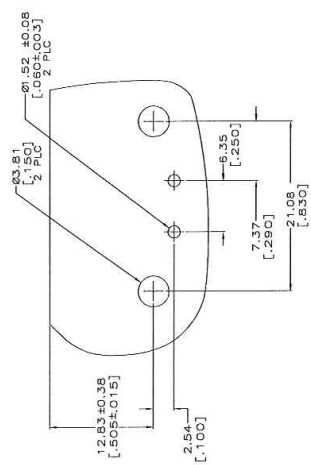
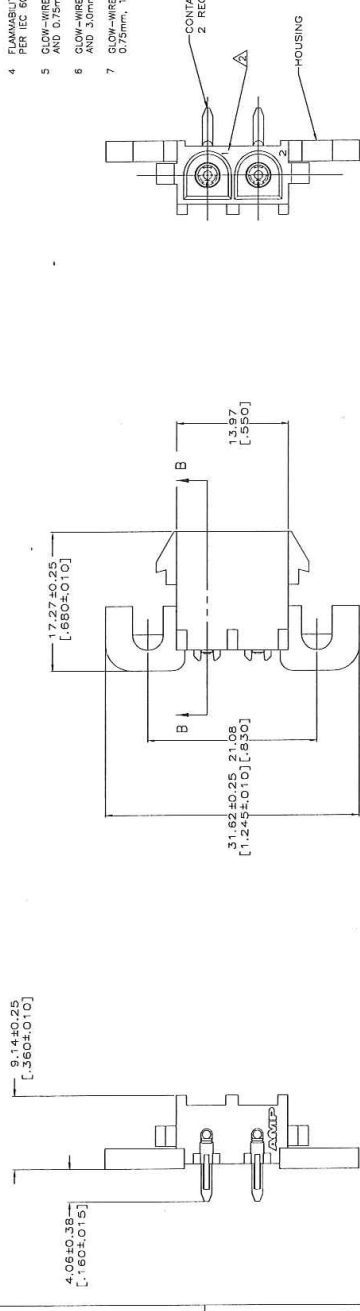
METRIC

PH	BRZ	TIN	NYLON UL 94V-2	HOUSING	1586689-1	PART NO
REV	DATE	BY	CHKD	DESCRIPTION	REV	DATE
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2	01/11/00	B	00	REV PER ECN 10-011821	2	01/11/00
3	01/11/00	JR	00	REV PER ECN 10-011821	3	01/11/00
4	01/11/00	JR	00	REV PER ECN 10-011821	4	01/11/00
5	01/11/00	JR	00	REV PER ECN 10-011821	5	01/11/00
6	01/11/00	JR	00	REV PER ECN 10-011821	6	01/11/00
7	01/11/00	JR	00	REV PER ECN 10-011821	7	01/11/00

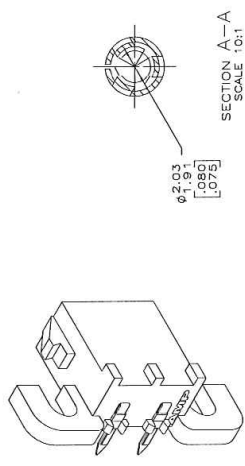
1586689

REV	DATE	BY	CHKD	APPROVED
CM	10	11	B	NO PER FOR IN-HOUSE
1527	11	35	TM	

- PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.
- FLAMMABILITY V9 FOR THICKNESS 0.38mm, .15mm, and 3.0mm PER IEC 60695-2-10.
- FLAMMABILITY V0 FOR THICKNESS 0.38mm, .15mm, and 3.0mm AND 0.75mm PER IEC 60695-2-10.
- GLOW-WIRE FLAMMABILITY (GW1) B2FC FOR THICKNESS 1.5mm AND 3.0mm PER IEC 60695-2-11.
- GLOW-WIRE IGNITION (GW1) B2FC FOR THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER IEC 60695-2-11.



RECOMMENDED MOUNTING HOLE PATTERN FOR .062 [1.57] THICK P.C. BOARD



3-DIMENSIONAL MODEL NTS



PH. BRZ. TIN	NYCON-USA4V-2	HOUSING	PART NO
CONTACT			1568890-1
NO. OF CONTACTS	2		
NO. OF HOLES	2		
NO. OF SLOTS	0		
NO. OF GROOVES	0		
NO. OF NOTCHES	0		
NO. OF DIMENSIONS	15		
NO. OF PARTS	1		
NO. OF MATERIALS	1		
NO. OF FINISHES	1		
NO. OF TOLERANCES	1		
NO. OF SURF. TREATMENTS	1		
NO. OF MARKINGS	1		
NO. OF DIMENSIONS	15		
NO. OF PARTS	1		
NO. OF MATERIALS	1		
NO. OF FINISHES	1		
NO. OF TOLERANCES	1		
NO. OF SURF. TREATMENTS	1		
NO. OF MARKINGS	1		

1586890

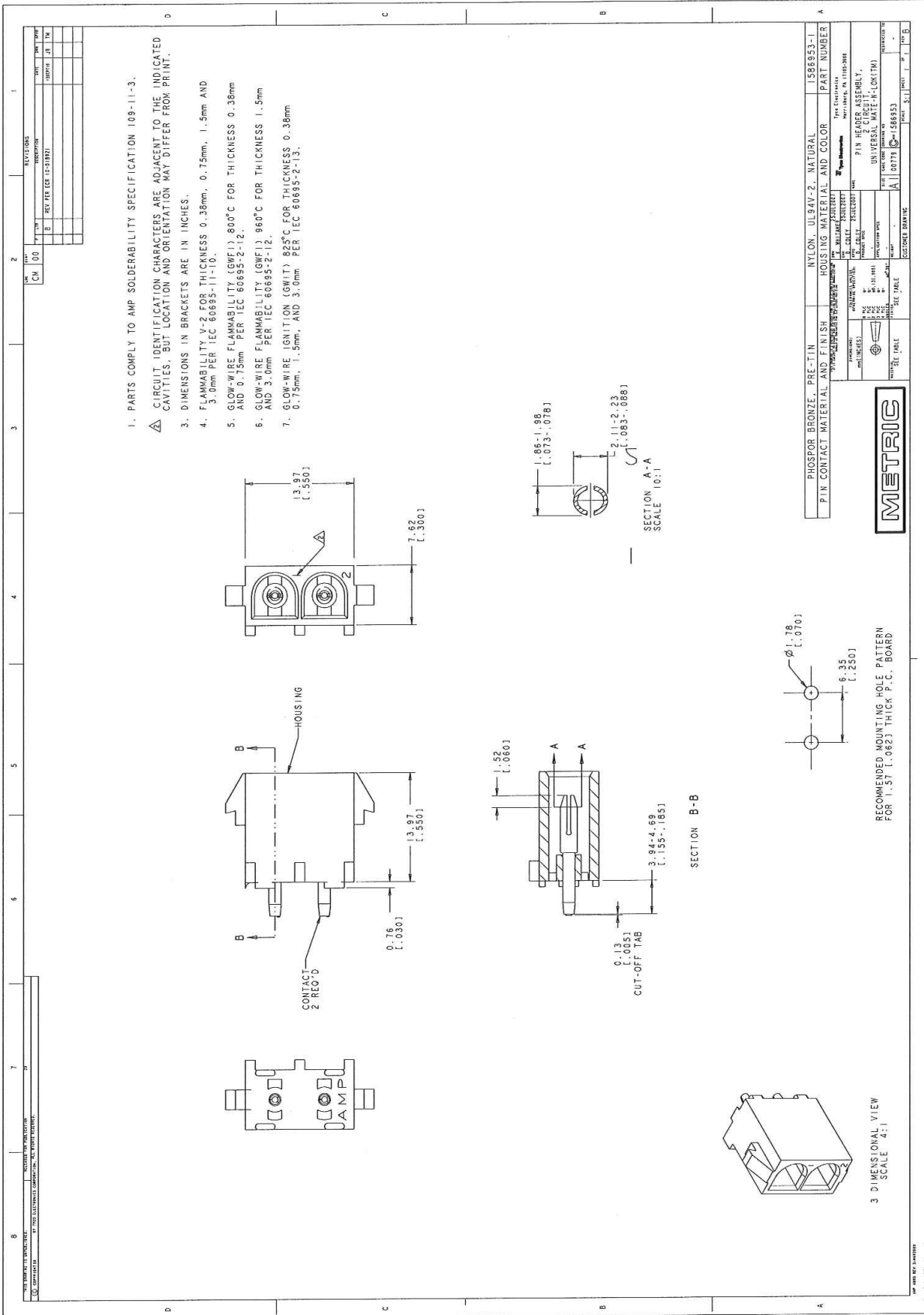
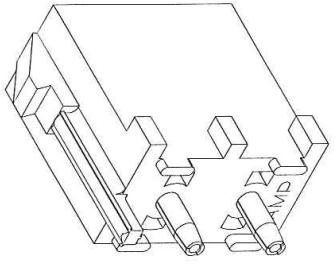
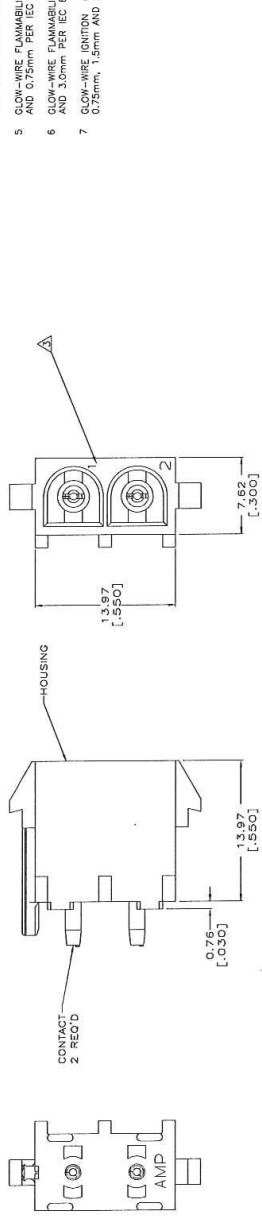


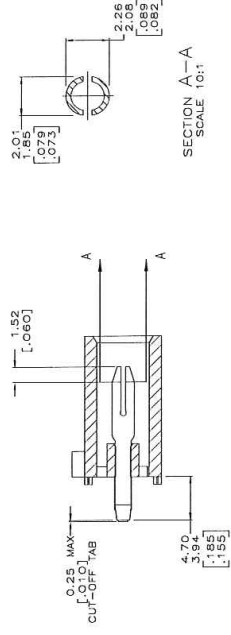
FIG 398
Project 70063977
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	CHKD	DESCRIPTION
CM	00	77	74	REVISED
CM	00	77	74	REVISED
CM	00	77	74	REVISED

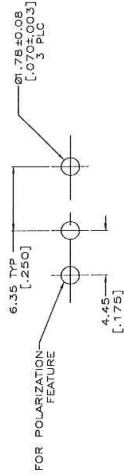
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- DIMENSIONS IN BRACKETS ARE IN INCHES.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE CONTACTS. THESE CHARACTERS MUST BE LOCATED IN THE SAME LOCATION AND ORIENTATION AS SHOWN IN THIS DRAWING. PRINTING OF THESE CHARACTERS MAY DIFFER FROM PRINTING OF THESE CHARACTERS ON OTHER AMP PRODUCTS.
- FLAMMABILITY V2 FOR THICKNESS 0.38mm, 1.5mm, and 3.0mm PER IEC 60695-11-10.
- CLOW-WIRE FLAMMABILITY (CWF) 695C FOR THICKNESS 0.38mm AND 0.75mm PER IEC 60695-2-12.
- CLOW-WIRE FLAMMABILITY (CWF) 695C FOR THICKNESS 1.5mm AND 3.0mm PER IEC 60695-2-12.
- CLOW-WIRE MESHION (CWM) 695C FOR THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER IEC 60695-2-12.



3-DIMENSIONAL MODEL
NTS



SECTION A-A
SCALE 10:1



PHOSPHOR BRONZE, PRE-TIN	NYLON UL94V-2 NATURAL	1586955-1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.		SEE CUSTOMER SPECIFICATIONS FOR MATERIALS AND FINISHES.	
REV	DATE	BY	CHKD
CM	00	77	74
CM	00	77	74
CM	00	77	74

METRIC

1586955

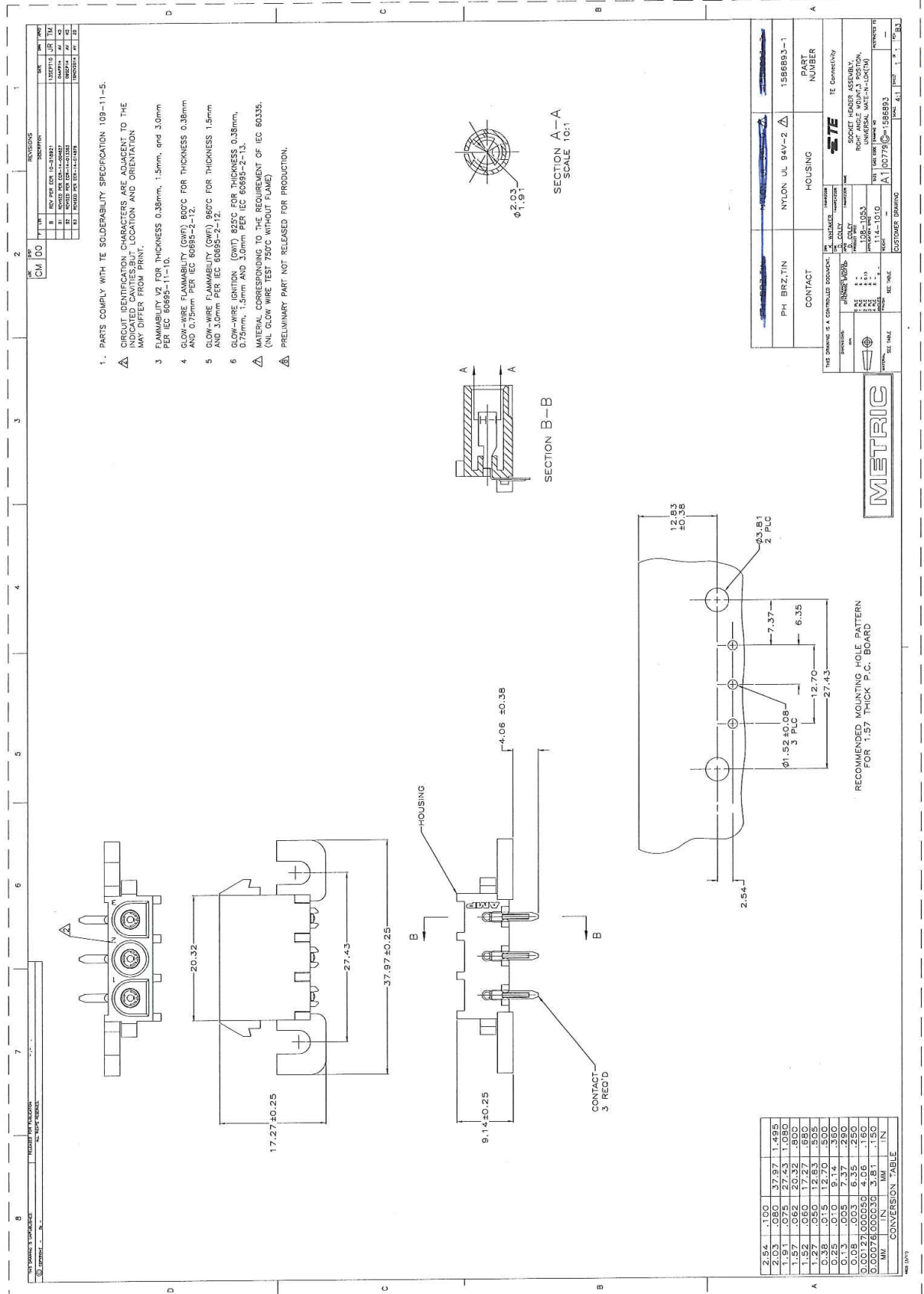
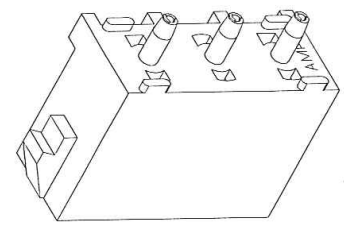
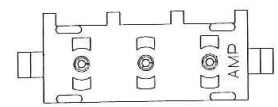
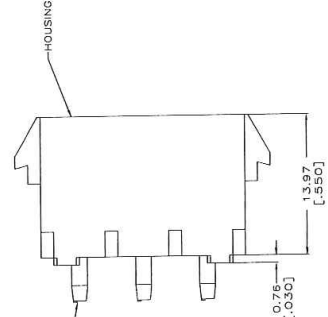
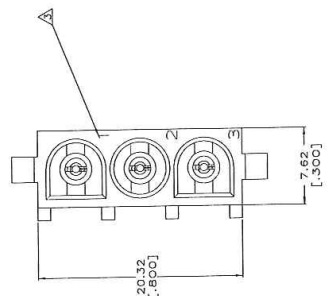
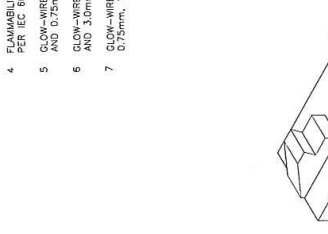


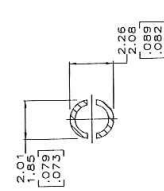
FIG 401
Project 70143056
Report 1030930
Contract 164196
LR 7189-549

REV	DATE	BY	CHK	DESCRIPTION
CM 153				REVISIONS
				REVISIONS
				REVISIONS
				REVISIONS
				REVISIONS
				REVISIONS
				REVISIONS
				REVISIONS
				REVISIONS
				REVISIONS

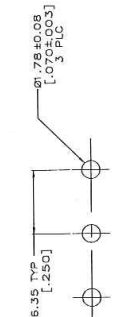
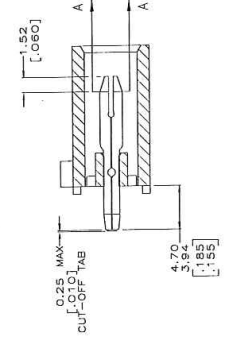
1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
 2. DIMENSIONS IN BRACKETS ARE IN INCHES.
- ⚠️ CIRCUIT IDENTIFICATION CHARACTERS ARE SUBJECT TO THE LOCATION AND ORIENTATION. THEY MAY DIFFER FROM PRINT.
4. FLAMMABILITY V2 FOR THICKNESS 0.38mm, 1.5mm, and 3.0mm PER IEC 60955-1-10.
 5. LOW-WIRE FLAMMABILITY (GWFL) 800C FOR THICKNESS 0.38mm AND 0.75mm PER IEC 60955-2-12.
 6. LOW-WIRE FLAMMABILITY (GWFL) 800C FOR THICKNESS 1.5mm AND 3.0mm PER IEC 60955-2-12.
 7. LOW-WIRE CONTIN. (GWFL) 800C PER THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER IEC 60955-2-13.



3-DIMENSIONAL MODEL
NIS



SECTION A-A
SCALE 10:1

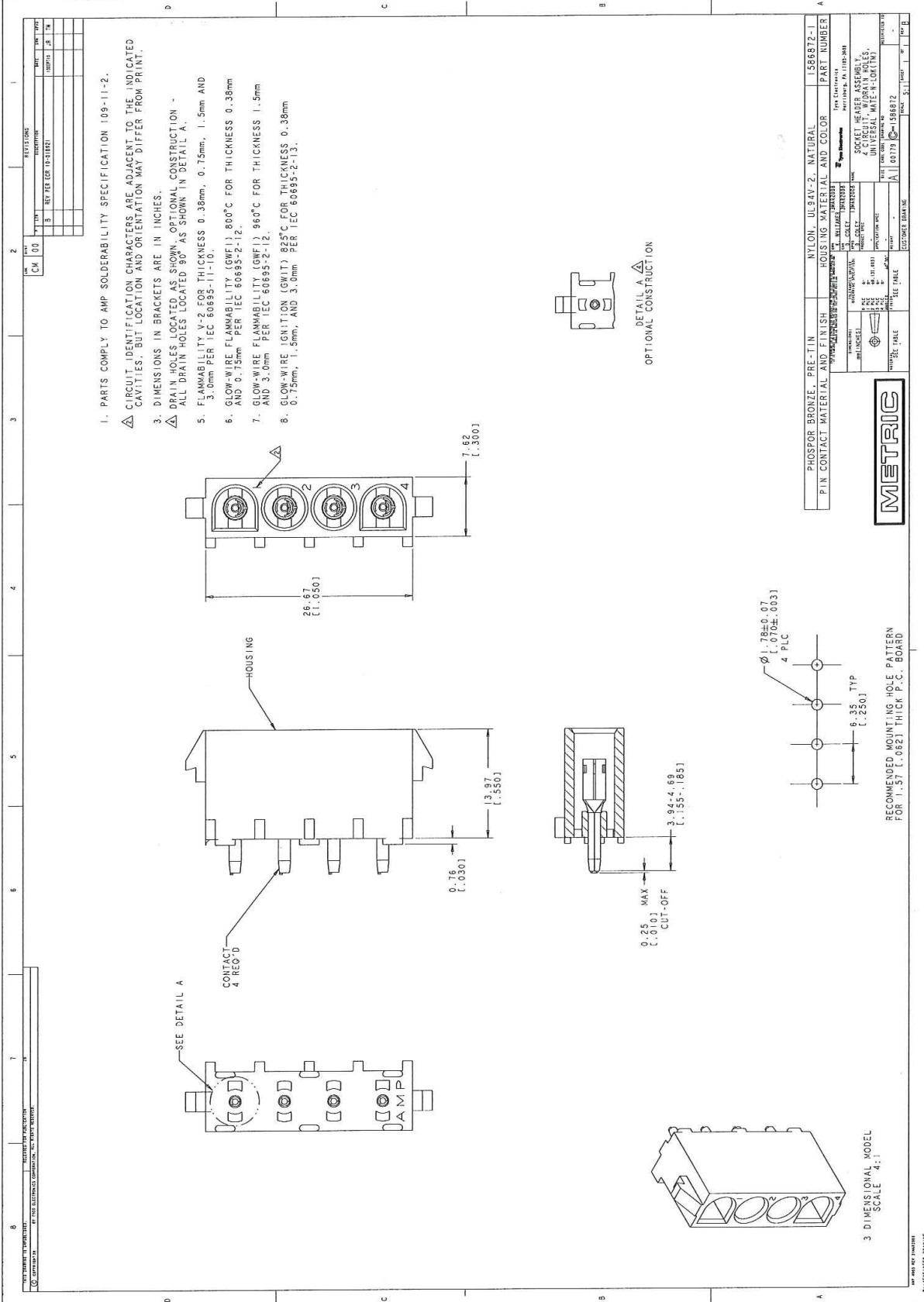


RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 [0.062] THICK P.C. BOARD

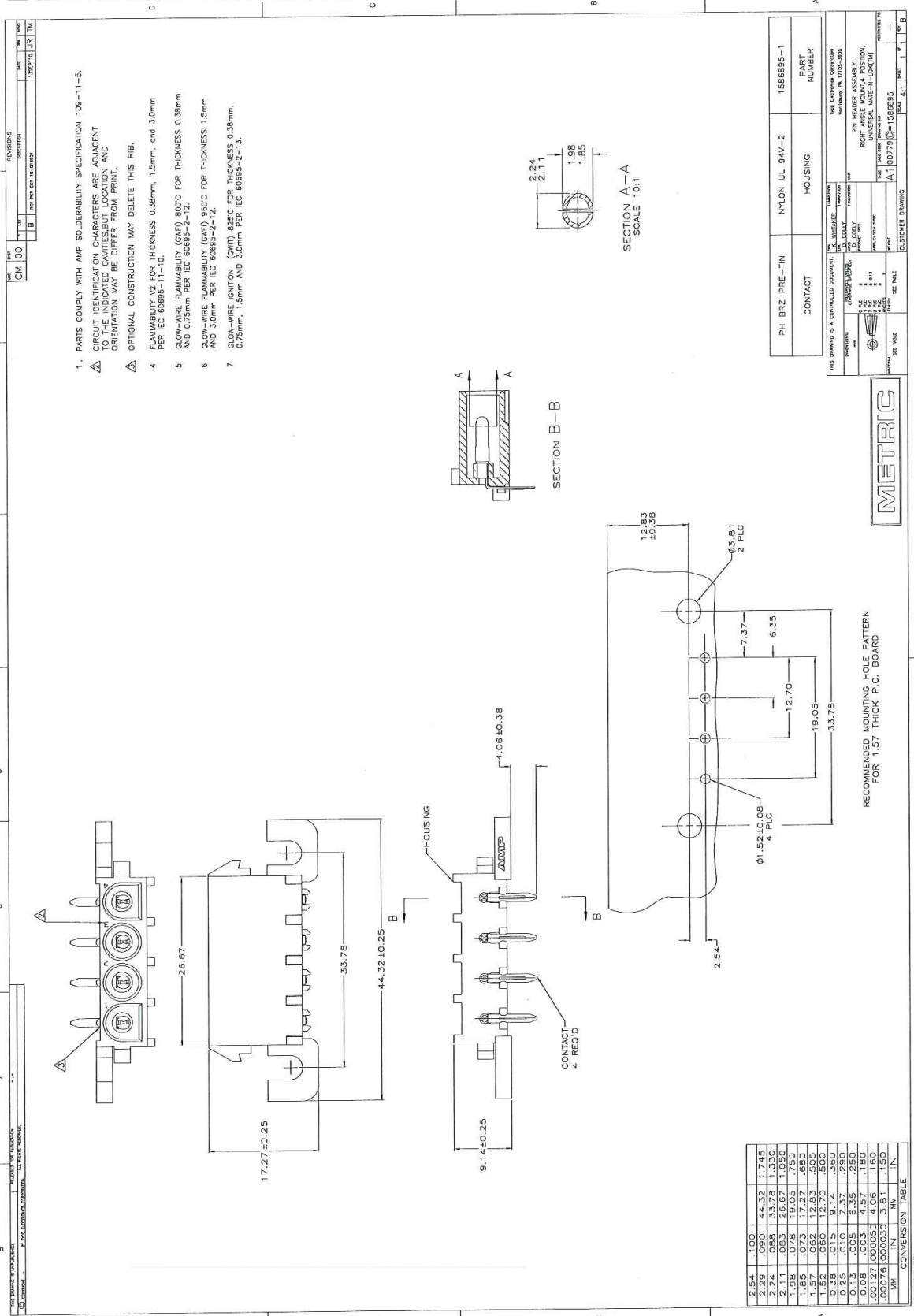
PIN CONTACT MATERIAL AND FINISH	PHOSPHOR BRONZE, PRE-TIN	HOUSING MATERIAL	NYLON, UL94V-2, NATURAL	PART NUMBER	1586958-1
IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO
IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO
IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO
IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO
IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO	IS THIS PART A CONTROLLED SUBSTANCE?	NO
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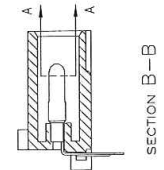
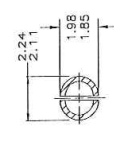
1586958



6100851



1. PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5.
2. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY BE DIFFER FROM PRINT.
3. OPTIONAL CONSTRUCTION MAY DELETE THIS RIB.
4. FLAMMABILITY V2 FOR THICKNESS 0.38mm, 1.5mm, and 3.0mm PER IEC 60695-11-4-10.
5. GLOW-WIRE FLAMMABILITY (GWR) B00C FOR THICKNESS 0.38mm AND 0.75mm PER IEC 60695-2-12.
6. GLOW-WIRE FLAMMABILITY (GWR) B00C FOR THICKNESS 1.5mm AND 3.0mm PER IEC 60695-2-12.
7. GLOW-WIRE IGNITION (GWI) B05C FOR THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER IEC 60695-2-13.



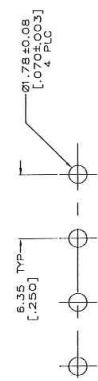
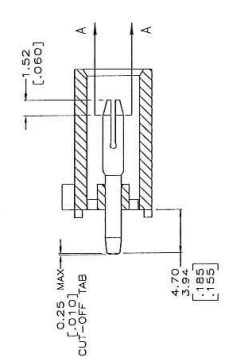
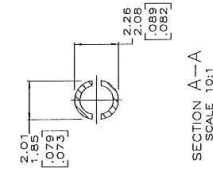
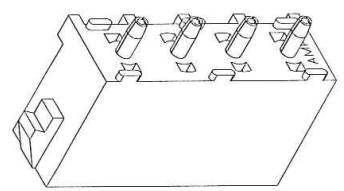
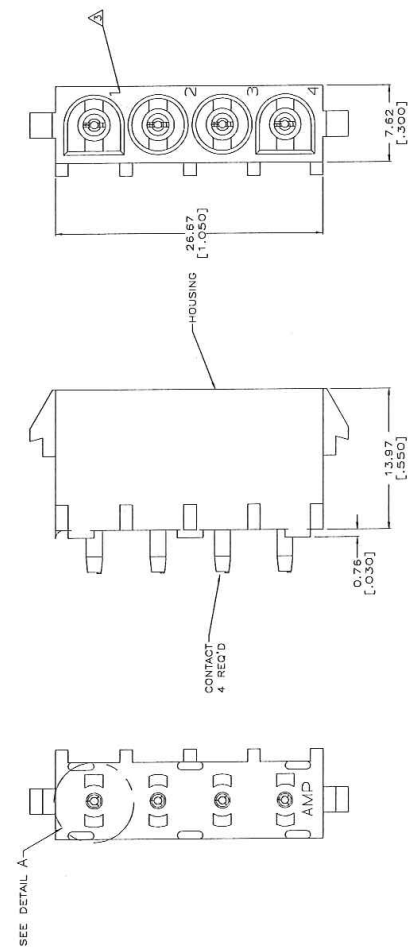
PH BRZ PRE-TIN	CONTACT	HOUSING	PART NUMBER
		NYLON UL 94V-2	1586895-1

THIS DRAWING IS A CONTROLLED DOCUMENT.	REV. NO.	DATE	BY
1	1	00779	A

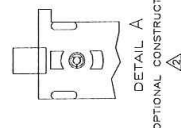
METRIC

1586895

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- △ DRAIN HOLES LOCATED AS SHOWN. LOCATION - ALL DRAIN HOLES LOCATED 90° AS SHOWN IN DETAIL A.
- △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
4. DIMENSIONS IN BRACKETS ARE IN INCHES.
5. FLAMMABILITY (V) FOR THICKNESS 0.38mm, 1.5mm, and 3.0mm PER IEC 60895-11-10.
6. LOW-WIRE FLAMMABILITY (GW) 80°C FOR THICKNESS 0.38mm AND 0.75mm PER IEC 60895-2-12.
7. LOW-WIRE FLAMMABILITY (GW) 80°C FOR THICKNESS 1.5mm AND 3.0mm PER IEC 60895-2-12.
- B LOW-WIRE CONDITION (GW) 85°C FOR THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER IEC 60895-2-13.



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 [0.062] THICK P.C. BOARD



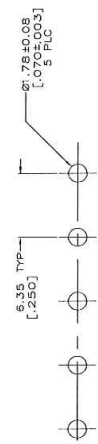
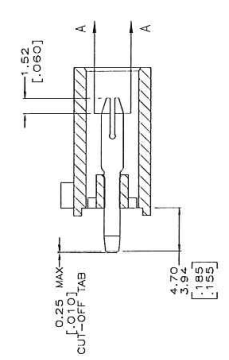
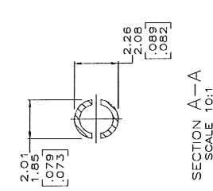
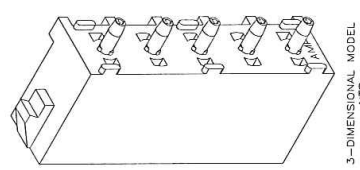
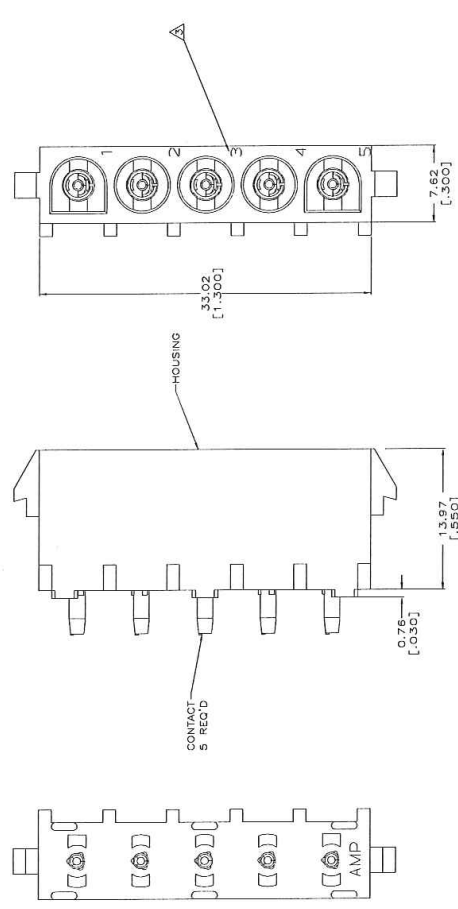
PHOSPHOR BRONZE, PRE-TIN	NYLON, UL94V-2,NATURAL	PART NUMBER	1586963-1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL		
THIS DRAWING IS A CONTROLLED DOCUMENT. IT IS THE PROPERTY OF AMP INC. IT IS TO BE KEPT IN CONFIDENCE AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.			
DATE	BY	CHKD	APP'D
10/01/81	J. J. [unclear]	[unclear]	[unclear]
REV	DESCRIPTION	DATE	BY
1	INITIAL DESIGN	10/01/81	J. J. [unclear]
2	REVISED TO ADD DIMENSIONS	10/01/81	J. J. [unclear]
3	REVISED TO ADD DIMENSIONS	10/01/81	J. J. [unclear]
4	REVISED TO ADD DIMENSIONS	10/01/81	J. J. [unclear]
5	REVISED TO ADD DIMENSIONS	10/01/81	J. J. [unclear]
6	REVISED TO ADD DIMENSIONS	10/01/81	J. J. [unclear]
7	REVISED TO ADD DIMENSIONS	10/01/81	J. J. [unclear]

METRIC

1586963

REV	DATE	BY	CHKD	DESCRIPTION
1	10-01-82	...	...	...

1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. DIMENSIONS IN BRACKETS ARE IN INCHES.
3. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
4. FLAMMABILITY V2 FOR THICKNESS 0.35mm, 1.5mm, and 3.0mm PER IEC 60950-11-10.
5. GLOW-WIRE FLAMMABILITY (GWF) 800C FOR THICKNESS 0.35mm AND 0.75mm PER IEC 60950-2-12.
6. GLOW-WIRE FLAMMABILITY (GWF) 980C FOR THICKNESS 1.5mm AND 3.0mm PER IEC 60950-2-12.
7. GLOW-WIRE IGNITION (GWI) 822C FOR THICKNESS 0.35mm, 0.75mm, 1.5mm AND 3.0mm PER IEC 60950-2-13.



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 [0.062] THICK P.C. BOARD

PHOSPHOR BRONZE, PRE-TIN	NYLON UL94V-2 NATURAL	1586968-1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL	PART NUMBER
THIS DRAWING IS A CONTROLLED DOCUMENT		
DESIGNED BY	ISSUED BY	DATE
CHECKED BY	APPROVED BY	DATE
DATE	SCALE	SEE TABLE
DATE	SCALE	SEE TABLE

METRIC

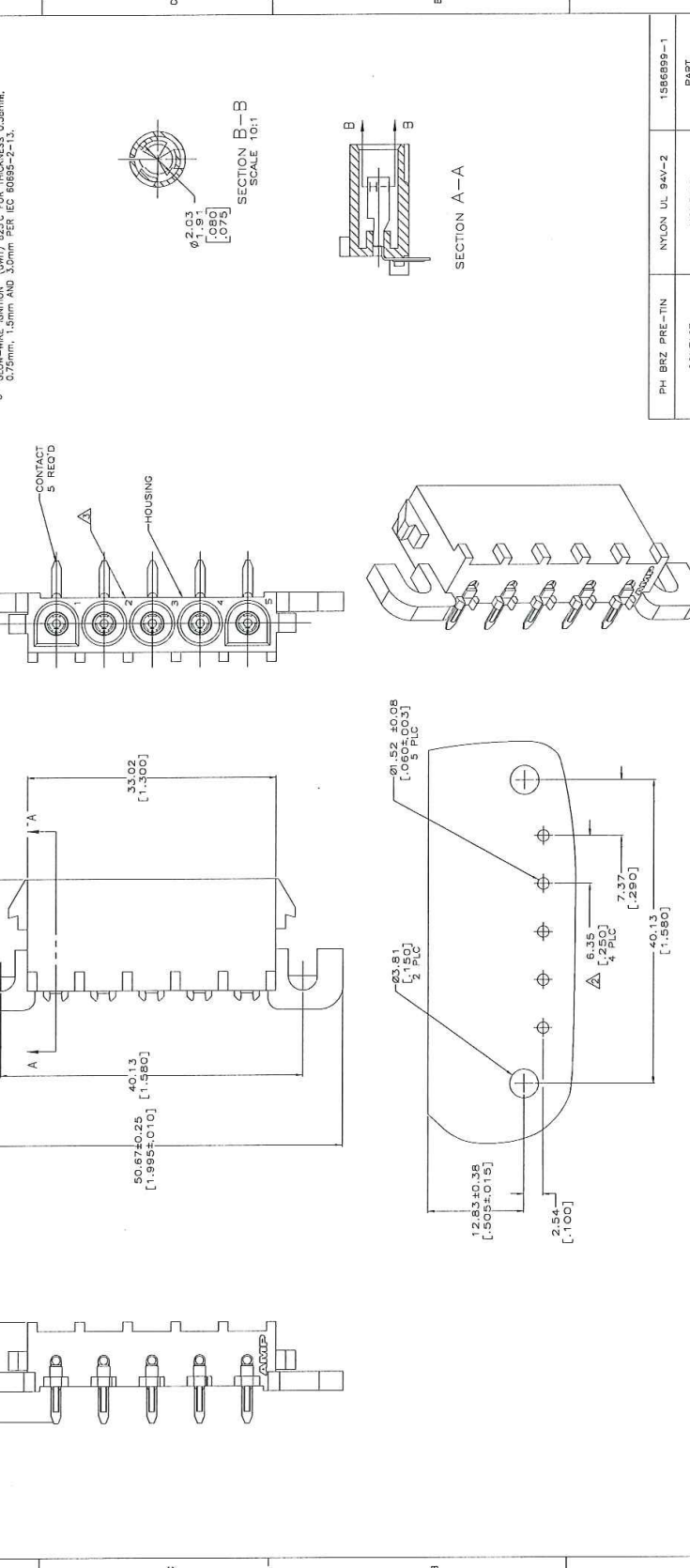
UNIVERSAL MATE-A-LOK

1586968

1586968

REV	DATE	BY	CHKD	APP'D
1	10-21-83	B	CM	DO
REVISIONS				
1. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12				
2. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12				
3. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12				
4. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12				
5. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12				
6. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12				
7. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12				
8. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12				

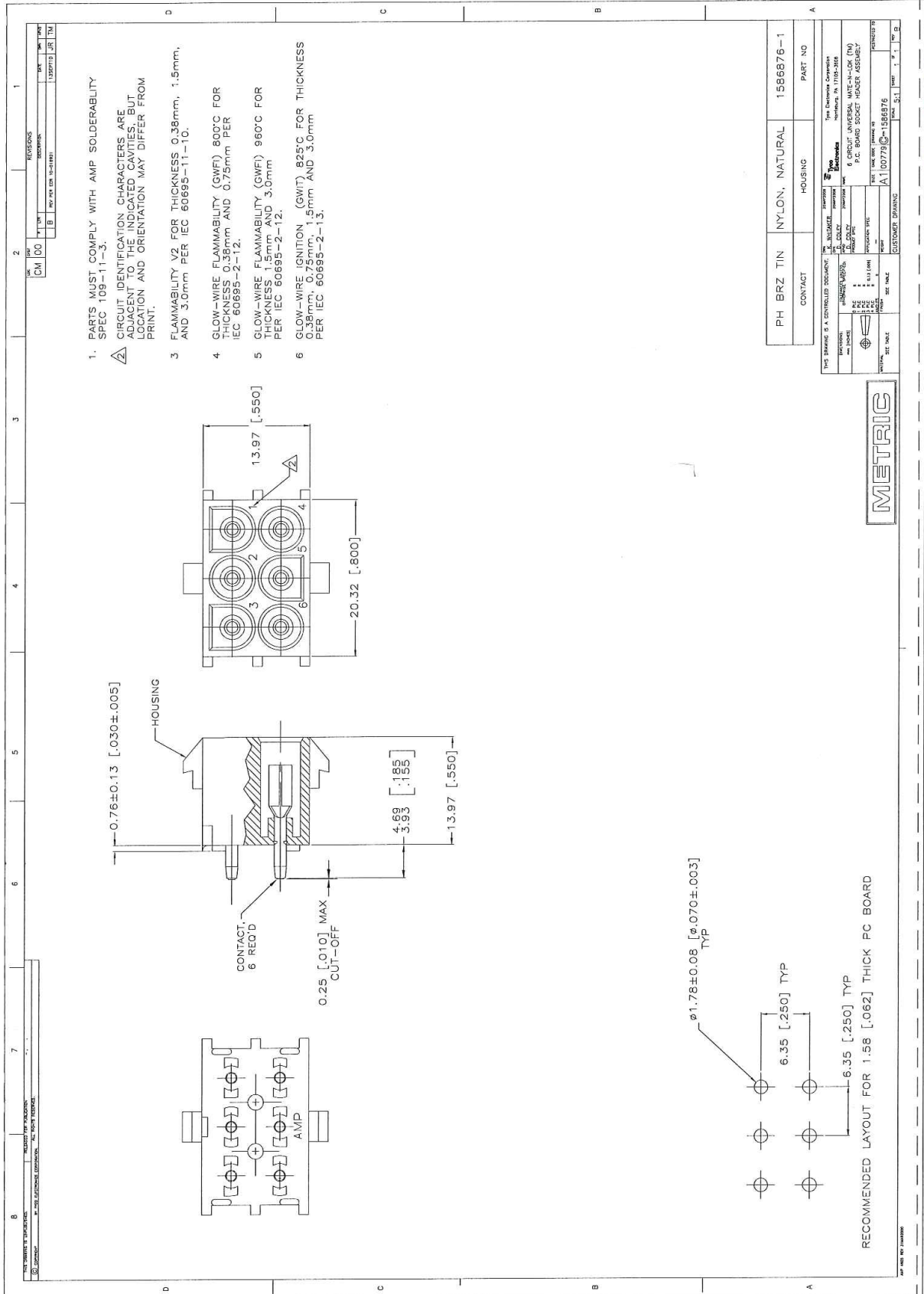
1. PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5.
2. TOLERANCE NON-CUMULATIVE.
3. CIRCUIT IDENTIFICATION CHARACTERS ARE INDICATED TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
4. DIMENSIONS IN BRACKETS ARE IN INCHES.
5. FLAMMABILITY (ZF) FOR THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12.
6. GLOW-WIRE FLAMMABILITY (GWF) BDDC FOR THICKNESS 0.38mm AND 0.75mm PER EC 80895-2-12.
7. GLOW-WIRE FLAMMABILITY (GWF) BDDC FOR THICKNESS 1.5mm AND 3.0mm PER EC 80895-2-12.
8. GLOW-WIRE IGNITION (GWI) BDDC FOR THICKNESS 0.38mm, 0.75mm, 1.5mm, and 3.0mm PER EC 80895-2-12.



PH BRZ PRE-TIN	NYLON UL 94V-2	HOUSING	PART NUMBER
CONTACT			1586899-1
THIS DRAWING IS A CONTROLLED DOCUMENT. SEE INSTRUCTIONS FOR USE.			
REVISION	DATE	BY	CHKD
1	10-21-83	B	CM
REVISIONS			
1. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12			
2. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12			
3. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12			
4. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12			
5. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12			
6. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12			
7. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12			
8. CHANGE TO THICKNESS 0.38mm, 1.5mm, and 3.0mm PER EC 80895-2-12			



1586899



1586876

FIG 410
 Project 70143056
 Report 1030930
 Contract 164196
 LR 7189-549

REV	DATE	DESCRIPTION	BY	CHKD	APP'D
CM	00				
B		REV PER ECR 10-018921			
					14SEPT10 UR TM

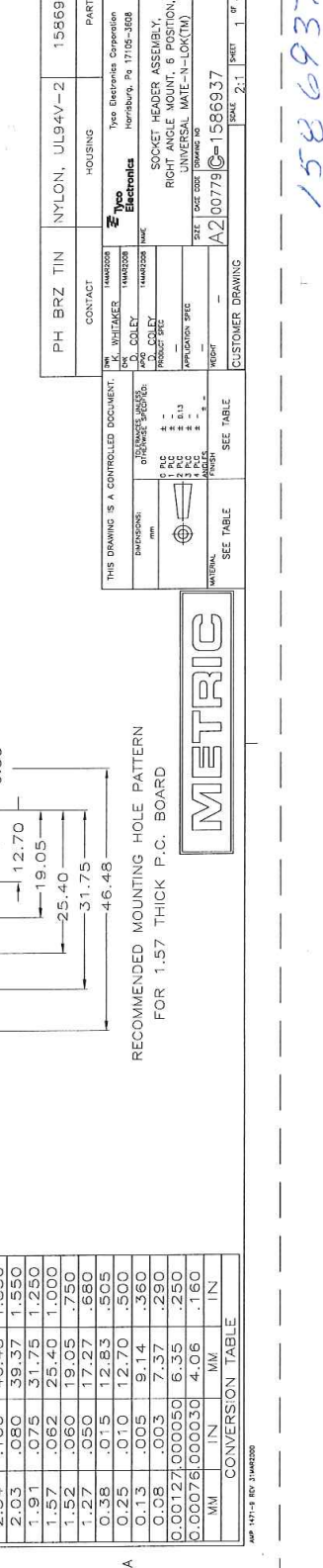
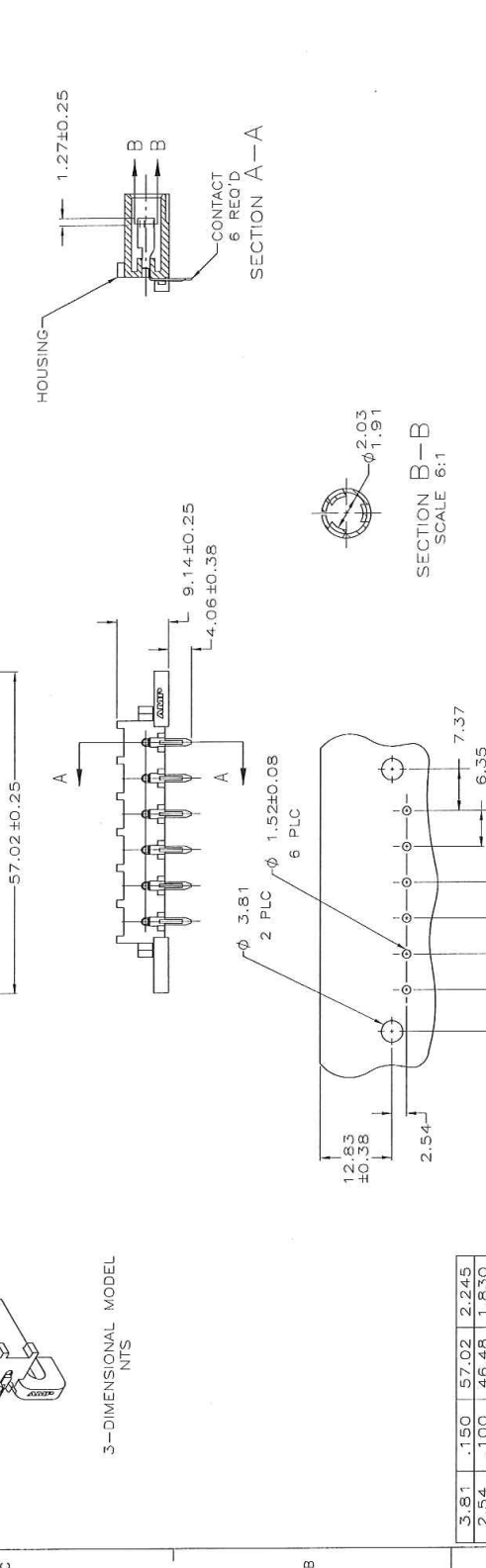
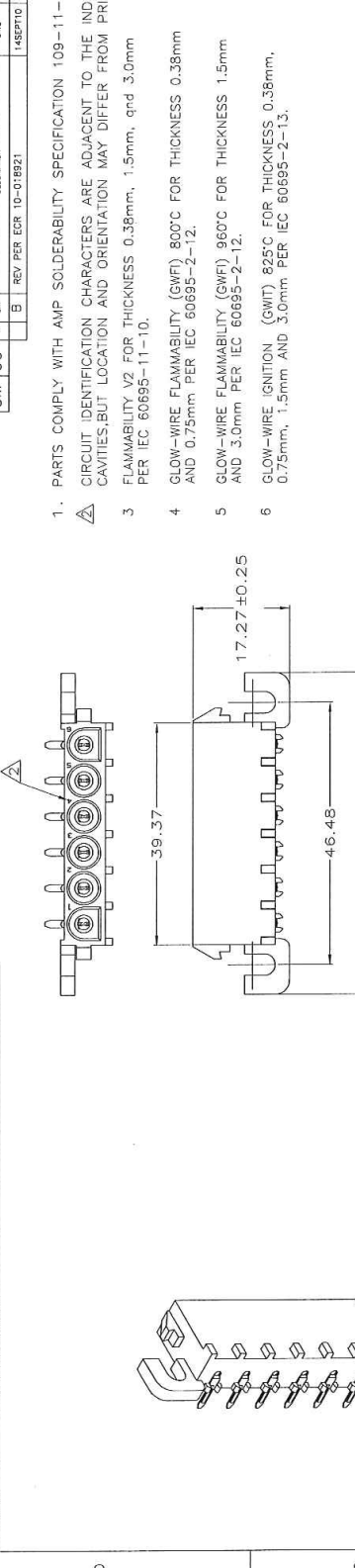
1. PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.

2. FLAMMABILITY V2 FOR THICKNESS 0.38mm, 1.5mm, and 3.0mm PER IEC 60695-11-10.

3. GLOW-WIRE FLAMMABILITY (GWF) 800°C FOR THICKNESS 0.38mm AND 0.75mm PER IEC 60695-2-12.

4. GLOW-WIRE FLAMMABILITY (GWF) 960°C FOR THICKNESS 1.5mm AND 3.0mm PER IEC 60695-2-12.

5. GLOW-WIRE IGNITION (GWI) 825°C FOR THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER IEC 60695-2-13.



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 THICK P.C. BOARD

3.81	.150	57.02	2.245
2.54	.100	46.48	1.830
2.03	.080	39.37	1.550
1.91	.075	31.75	1.250
1.57	.062	25.40	1.000
1.52	.060	19.05	.750
1.27	.050	17.27	.680
0.38	.015	12.83	.505
0.25	.010	12.70	.500
0.13	.005	9.14	.360
0.08	.003	7.37	.290
0.00127	0.00050	6.35	.250
0.00076	0.00030	4.06	.160
MM	IN	MM	IN

CONVERSION TABLE

PH BRZ TIN NYLON, UL94V-2 1586937-1

CONTACT HOUSING PART NO

1586937

1586937

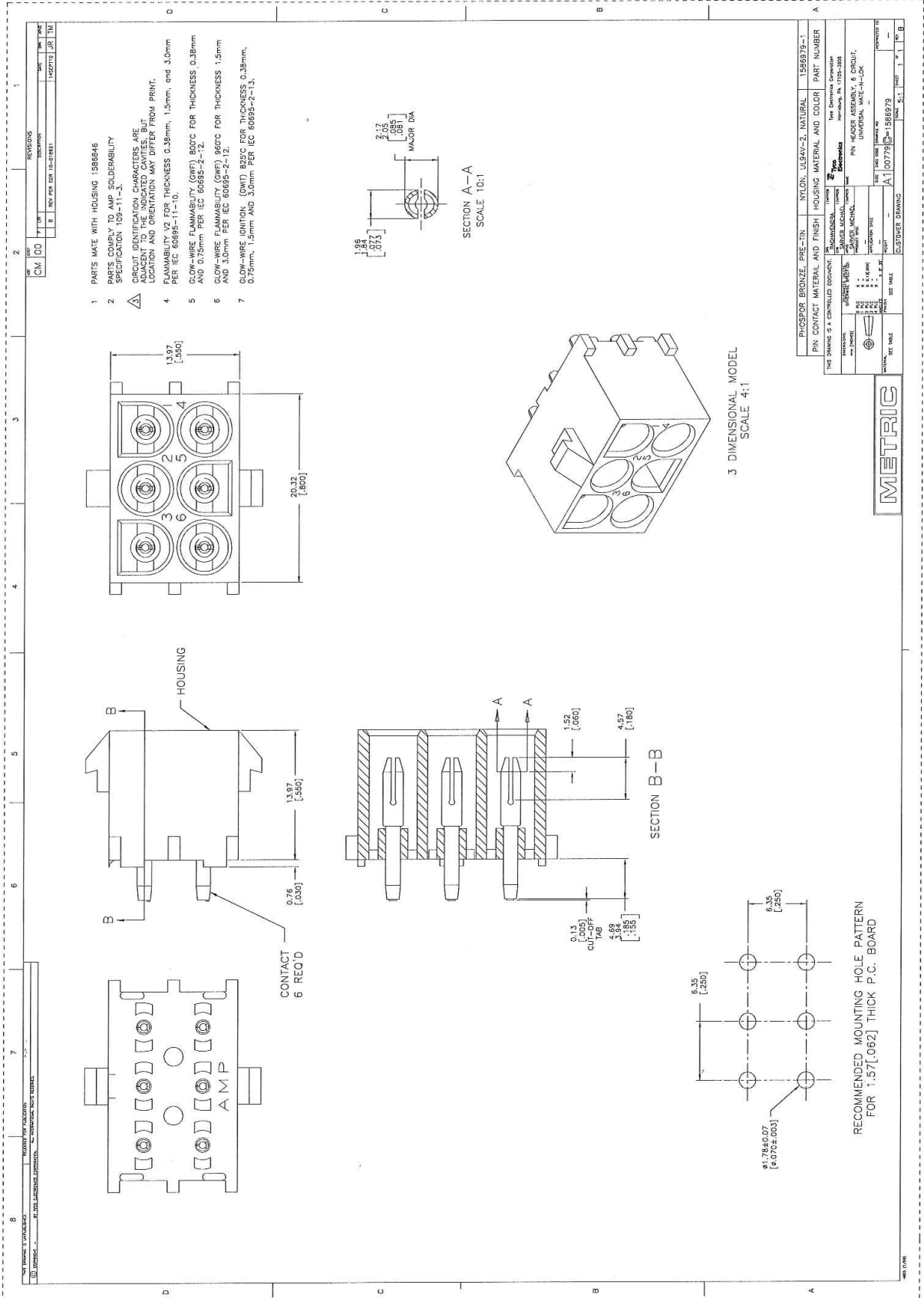
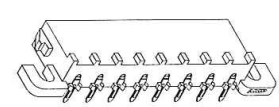
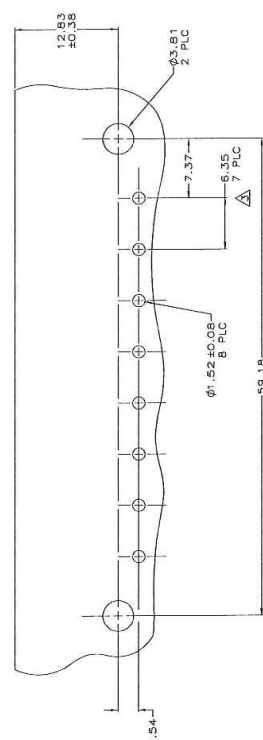
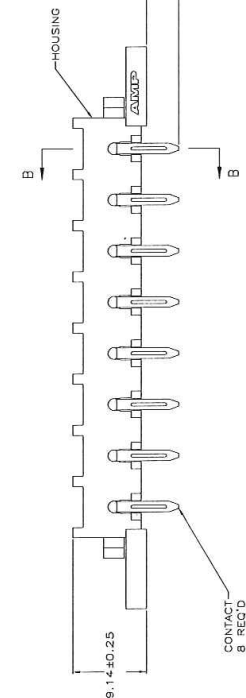
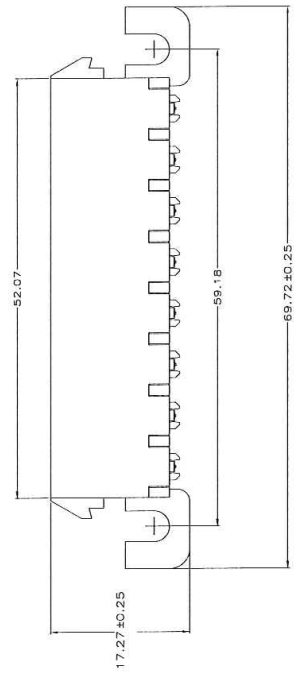
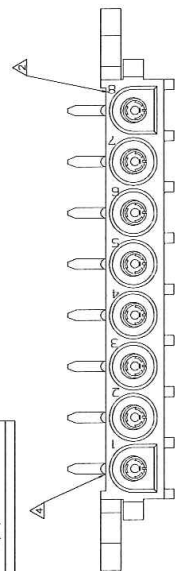


FIG 413
Project 70143056
Report 1030930
Contract 164196
LR 7189-549

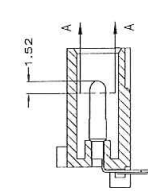
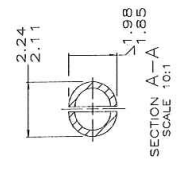
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- △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- △ TOLERANCE NON-CUMULATIVE
- △ OPTIONAL CONSTRUCTION MAY DELETE THIS RIB.
- 5 FLAMMABILITY V2 FOR THICKNESS 0.38mm, 1.5mm, and 3.0mm PER IEC 60695-11-10.
- 6 GLOW-WIRE FLAMMABILITY (GWFI) 800°C FOR THICKNESS 0.38mm AND 0.75mm PER IEC 60695-2-12.
- 7 GLOW-WIRE FLAMMABILITY (GWFI) 800°C FOR THICKNESS 1.5mm AND 3.0mm PER IEC 60695-2-12.
- 8 GLOW-WIRE IGNITION (GWIT) 825°C FOR THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER IEC 60695-2-13.



3-DIMENSIONAL MODEL NTS



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.37 THICK P.C. BOARD

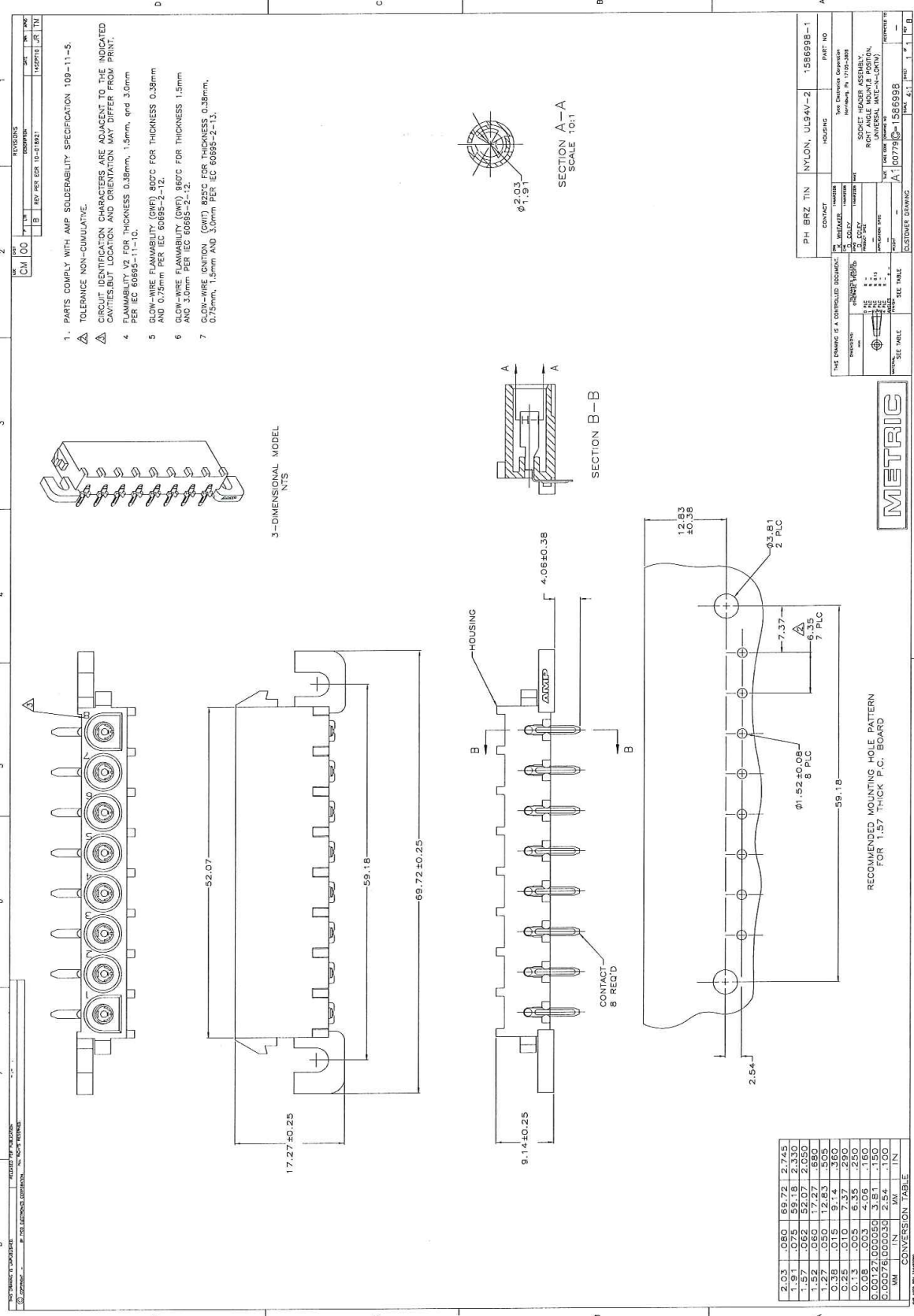


IN	MILS	MM
2.25	.090	2.25
2.24	.088	2.24
2.11	.083	2.11
1.85	.073	1.85
1.57	.062	1.57
1.52	.060	1.52
0.38	.015	0.38
0.13	.005	0.13
0.08	.003	0.08
0.00127	.00005	0.00127
0.00076	.00003	0.00076

PH BRZ TIN	NYLON, U.S.94V-2	1586939-1
CONTRACT	INDUS	PART NO
THIS DRAWING IS A CONTROLLED DOCUMENT	SEE INSTRUCTIONS	SEE ENTIRE DRAWING
REV	DATE	BY
1	10-01-83	1586939
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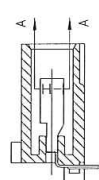
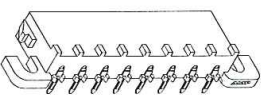


1586939



REV	DATE	BY	CHKD	REVISION
1	10/21/11	11	11	REV PER EC 10-2-99Z
2				REV PER EC 10-2-99Z

- PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5. TOLERANCE NON-CUMULATIVE.
- CRUISE IDENTIFICATION CHARACTERS ARE IDENTICAL TO THE INDICATED CHARACTERISTICS. LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- FLAMMABILITY PER THICKNESS 0.38mm, 1.5mm, and 3.0mm PER IEC 60895-1-1-0.
- GLOW-WIRE FLAMMABILITY (GWF) 80°C FOR THICKNESS 0.38mm AND 0.75mm PER IEC 60895-2-1-2.
- GLOW-WIRE FLAMMABILITY (GWF) 82°C FOR THICKNESS 1.5mm AND 3.0mm PER IEC 60895-2-1-2.
- GLOW-WIRE IGNITION (GWI) 82°C FOR THICKNESS 0.38mm, 0.75mm, 1.5mm AND 3.0mm PER IEC 60895-2-1-3.



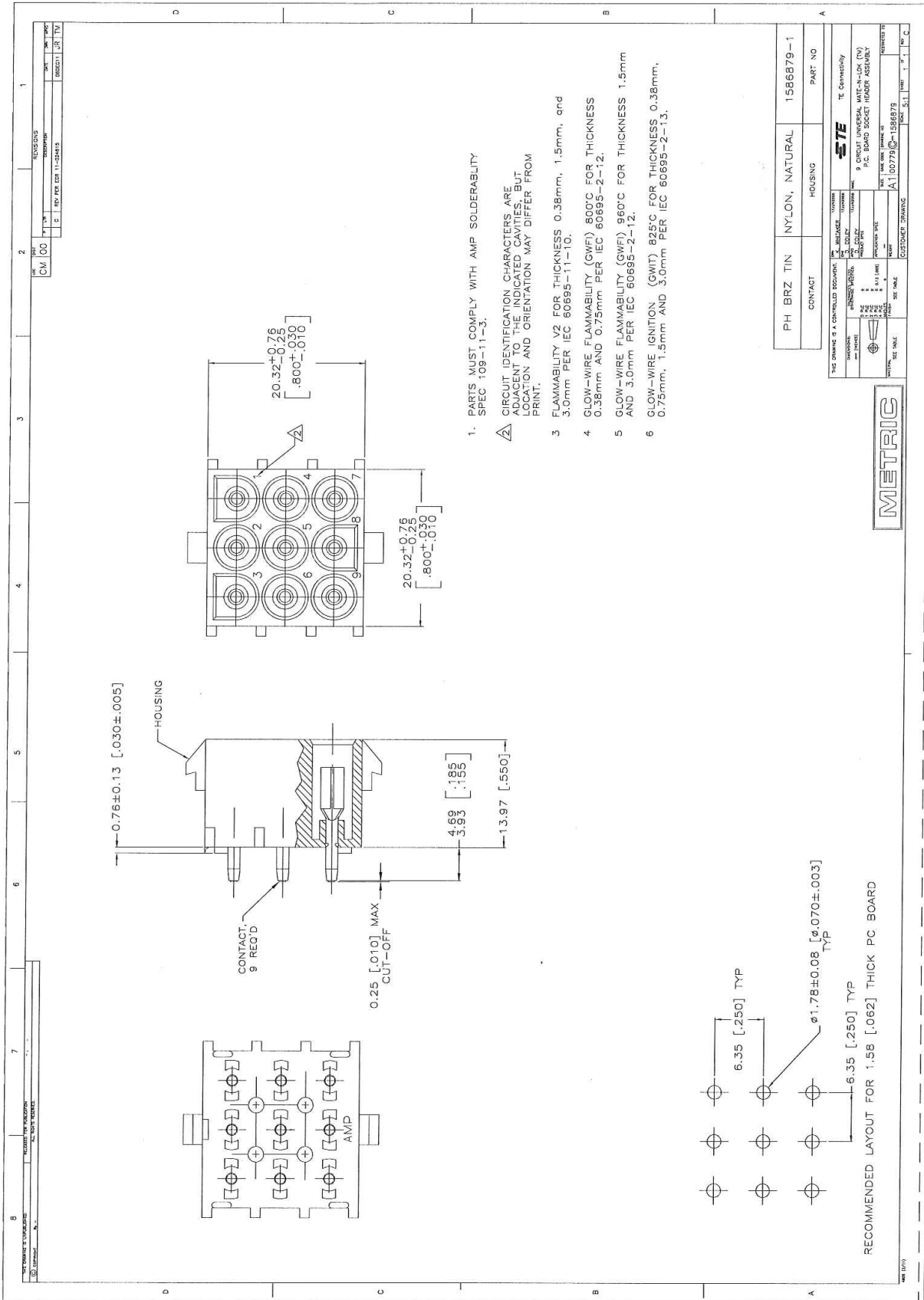
MIL	CONVERSION TABLE	MIL	CONVERSION TABLE
2.03	0.08	69.72	2.745
1.97	0.07	52.07	2.050
1.52	0.06	17.27	0.680
1.27	0.05	12.83	0.508
0.38	0.015	9.14	0.360
0.75	0.03	6.35	0.250
0.13	0.005	6.35	0.250
0.08	0.003	4.06	0.160
0.00127	0.000050	3.18	0.125
0.00276	0.00030	2.54	0.100

PH	BRZ	TIN	NYLON	UL94V-2	1586998-1	PART NO
CONTACT	HOUSING	HOUSING	HOUSING	HOUSING	HOUSING	HOUSING
1586998-1	1586998-2	1586998-3	1586998-4	1586998-5	1586998-6	1586998-7

METRIC

RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 THICK P.C. BOARD

1586998

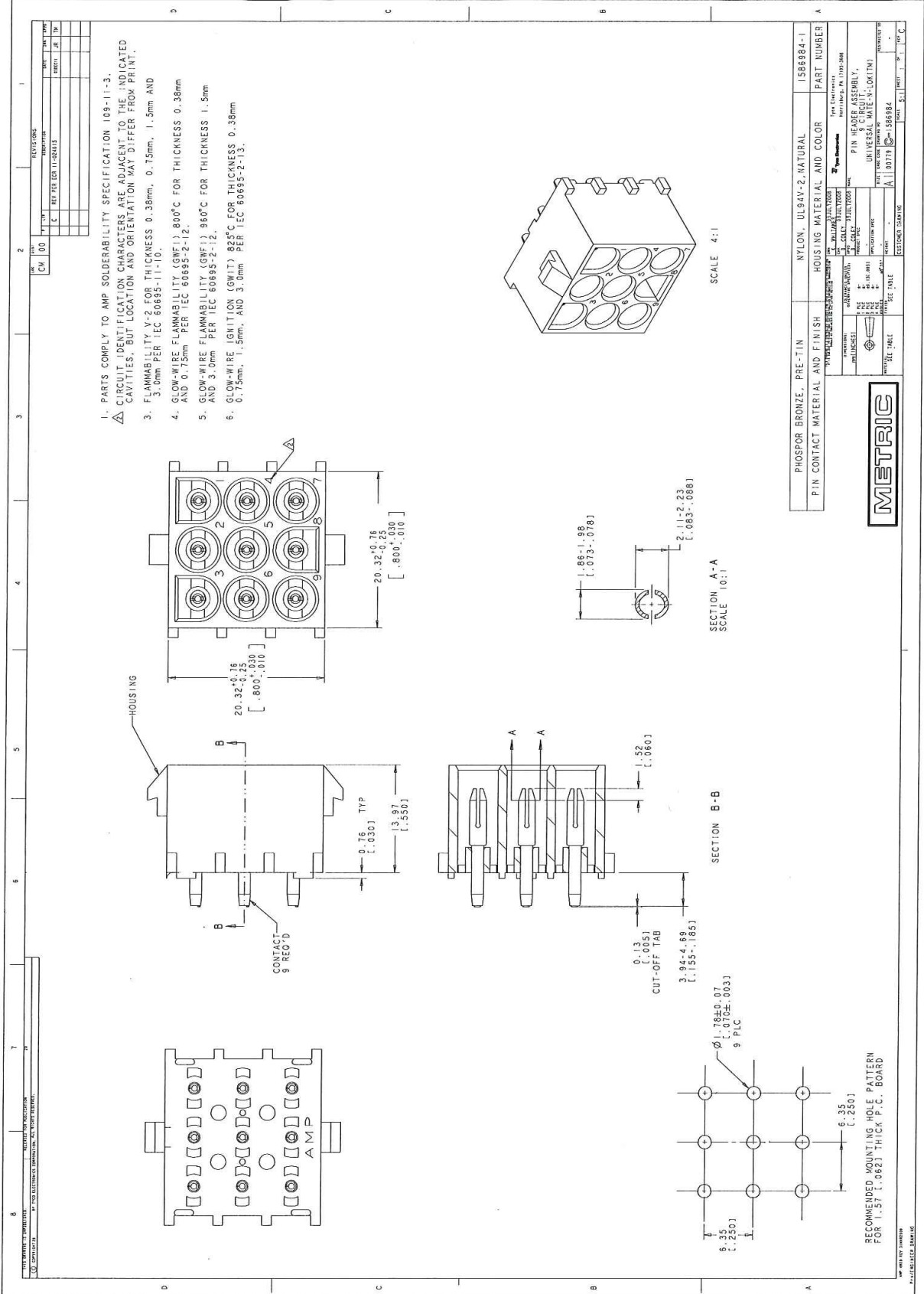


PH BRZ TIN	NYLON, NATURAL	HOUSING	1586879-1
CONTACT			PART NO

METRIC

RECOMMENDED LAYOUT FOR 1.58 [0.062] THICK PC BOARD

1586879

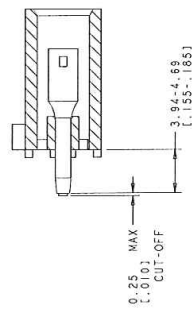
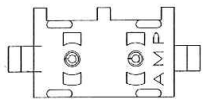
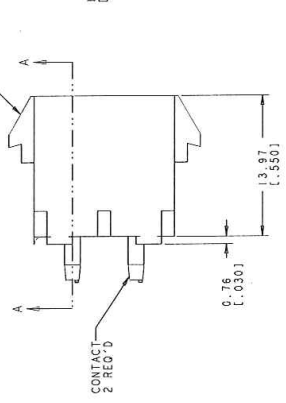
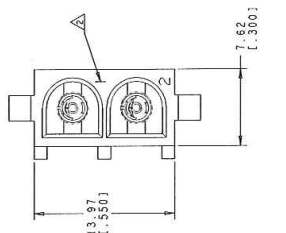


1586984

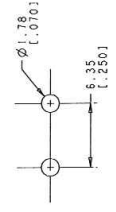
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REVISIONS	
NO.	DESCRIPTION
1	ISSUE DRAWING

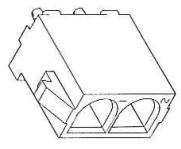
1. PARTS COMPLY TO TYCO ELECTRONICS SOLDERABILITY SPECIFICATION 109-11-2.
- △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
3. DIMENSIONS IN BRACKETS ARE IN INCHES.
4. FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6.
5. GLOW WIRE FLAMMABILITY (GWF1): 960°C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-11-10.
6. GLOW WIRE IGNITION (GWIT): 825°C FOR THICKNESS 0.45, 800°C FOR THICKNESS 0.8, 715°C FOR THICKNESS 1.6 AND 3.0 PER IEC 60695-2-13.



SECTION A-A



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.51 (0.062) THICK P.C. BOARD



3 DIMENSIONAL VIEW SCALE: 4:1

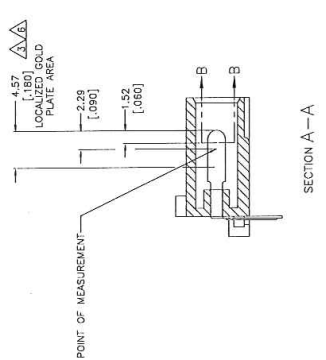
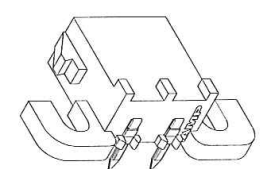
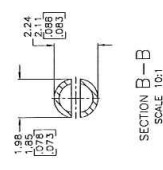
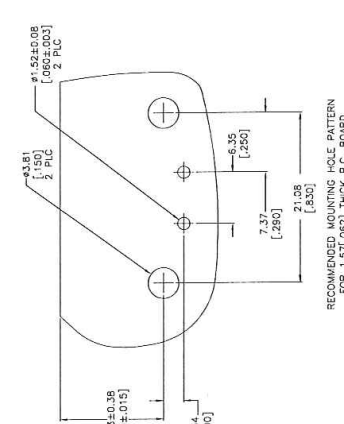
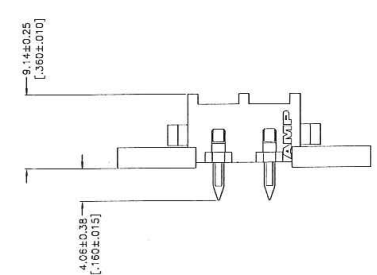
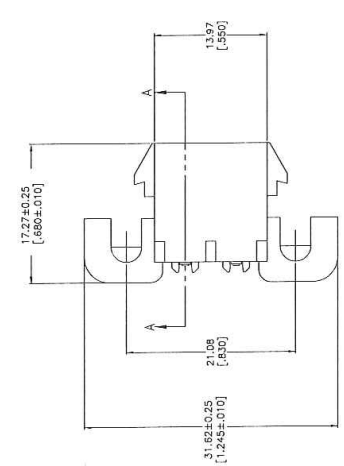
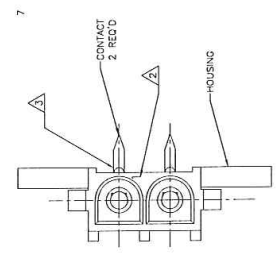
PRELIMINARY - NOT RELEASED FOR PRODUCTION

PHOSPOR BRONZE, PRE-TIN	NYLON, UL V-0 GW, NATURAL	1969795-1								
CONTACT MATERIAL AND FINISH	HOUSING MATERIAL AND COLOR	PART NUMBER								
<table border="1"> <tr> <td>STANDARD</td> <td>MANUFACTURER</td> <td>DATE</td> <td>REV.</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>			STANDARD	MANUFACTURER	DATE	REV.				
STANDARD	MANUFACTURER	DATE	REV.							
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SYMBOL	DESCRIPTION									
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PROJECT	UNIVERSAL WATERWORKS									
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PROJECT NUMBER	100795									
<table border="1"> <tr> <td>DATE</td> <td>1969</td> </tr> <tr> <td> </td> <td> </td> </tr> </table>			DATE	1969						
DATE	1969									

1969795

REVISIONS	DATE	BY	APPROVED BY
1	11	NO DRAWING	RECEIVED BY

- PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- OPTIONAL CONSTRUCTION MAY DELETE THIS RB.
- DIMENSIONS IN BRACKETS ARE IN INCHES.
- FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6, AND 3.0 PER EC 60695-1-10.
- GLOW WIRE FLAMMABILITY (GWF): 960C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER EC 60695-2-12.
- GLOW WIRE IGNITION (GWI): 825C FOR THICKNESS 0.45, 800C FOR THICKNESS 0.8, 775C FOR THICKNESS 1.6 AND 3.0 PER EC 60695-2-13.



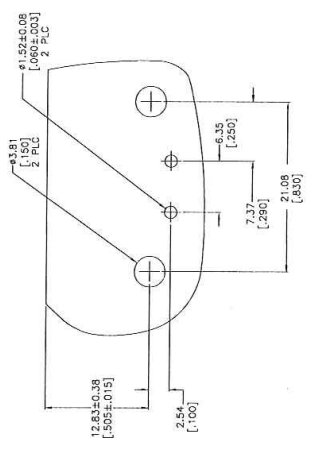
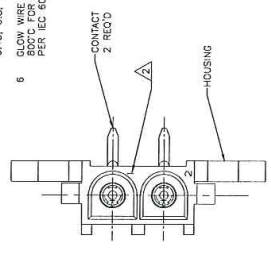
PRELIMINARY - NOT RELEASED FOR PRODUCTION

PH BRZ TIN NYLON UL V-0 GW 1889795-1	HOUSING	PART NO
CONTACT		
THE DRAWING IS A CONTROLLED DOCUMENT.		
DESIGN AUTHORITY	DATE	REV
DESIGNED BY		
CHECKED BY		
APPROVED BY		
DATE		
PROJECT NO		
WORK CENTER		
OPERATOR		
INSPECTOR		
DATE		
TIME		
SEC. NAME		
SEC. NO.		
CUSTOMER DRAWING		
DATE		
TIME		

1969796

REVISED		DATE		BY	
NO.	DESCRIPTION	DATE	BY	NO.	DESCRIPTION
1	NEW DRAWING				

- 1 PARTS COMPLY WITH AMP SOLIDIBILITY SPECIFICATION: 10B-11-5.
 CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CARRIERS, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 2 DIMENSIONS IN BRACKETS ARE IN INCHES.
- 3 FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6, AND 3.0 PER EC 60895-1-1-10.
- 4 GLOW WIRE FLAMMABILITY (GWFL): 950°C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER EC 60895-2-1-2.
- 5 GLOW WIRE IGNITION (GWIT): 825°C FOR THICKNESS 0.45, 800°C FOR THICKNESS 0.8, 775°C FOR THICKNESS 1.6 AND 3.0 PER EC 60895-3-1-3.

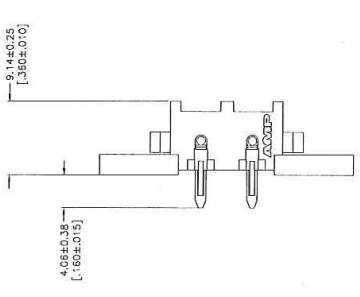
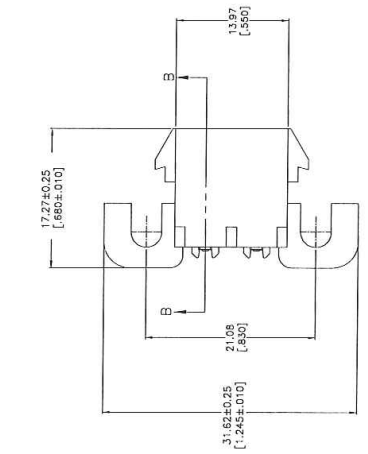
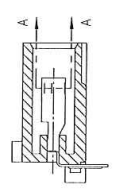
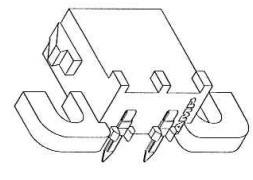


RECOMMENDED MOUNTING HOLE PATTERN FOR 1.9 [.062] THICK P.C. BOARD

PRELIMINARY - NOT RELEASED FOR PRODUCTION

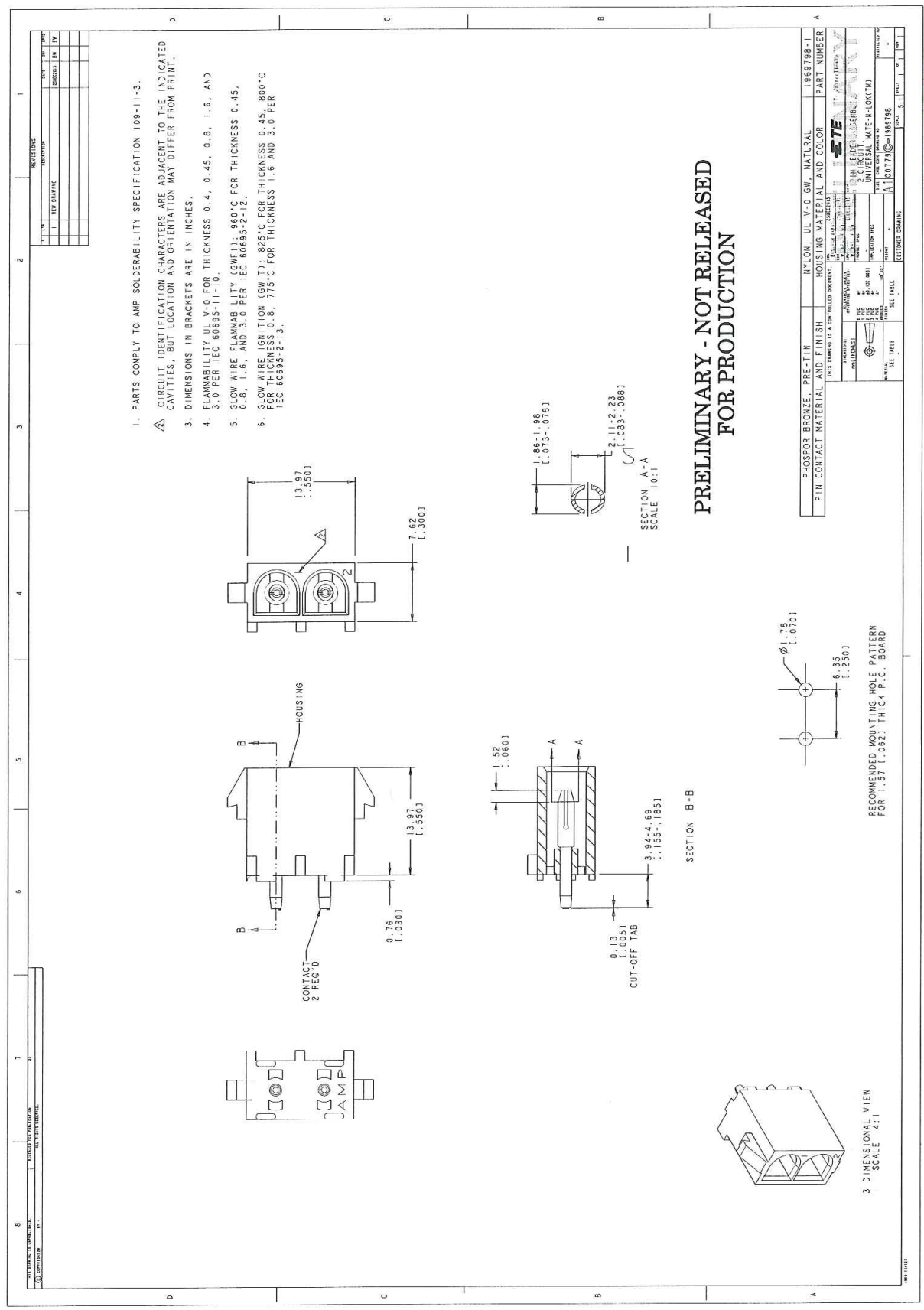


92.03 [.830]
2.54 [.100]



PH BRZ TIN NYLON UL V-0 GW 1969797-1		CONTACT HOUSING PART NO	
DESIGNED BY	DESIGNED DATE	DATE	BY
DRAWN BY	DRAWN DATE	DATE	BY
CHECKED BY	CHECKED DATE	DATE	BY
APPROVED BY	APPROVED DATE	DATE	BY
TEST DATE	SEE TABLE	TEST DATE	SEE TABLE
CUSTOMER DRAWING			

1969797

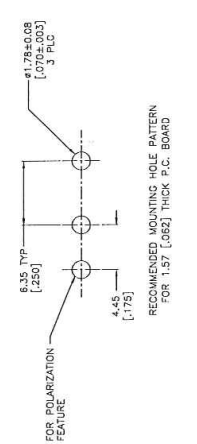
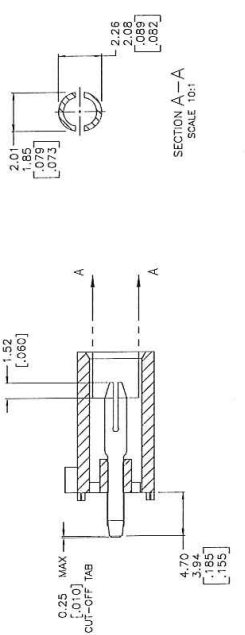
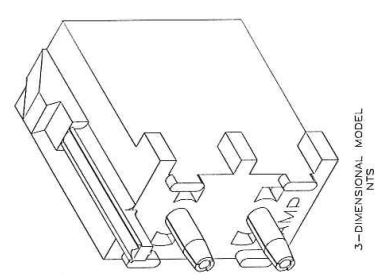
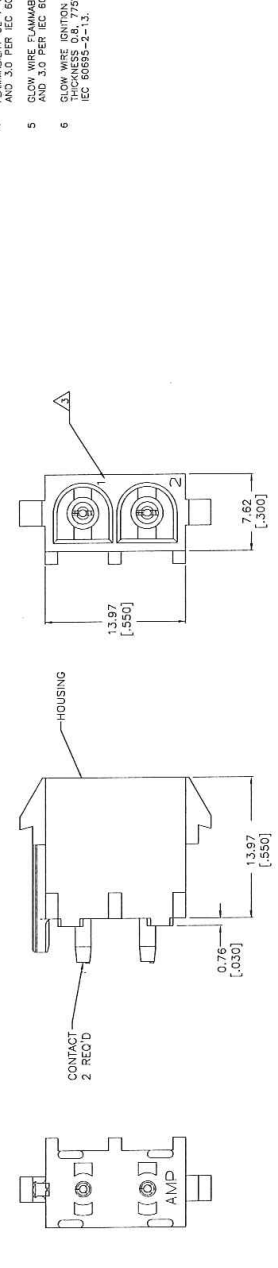


1969798

FIG 421
 Project 70143056
 Report 1030930
 Contract 164196
 LR 7189-549

REVISING	DATE	BY	CHK'D BY
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DESIGN			
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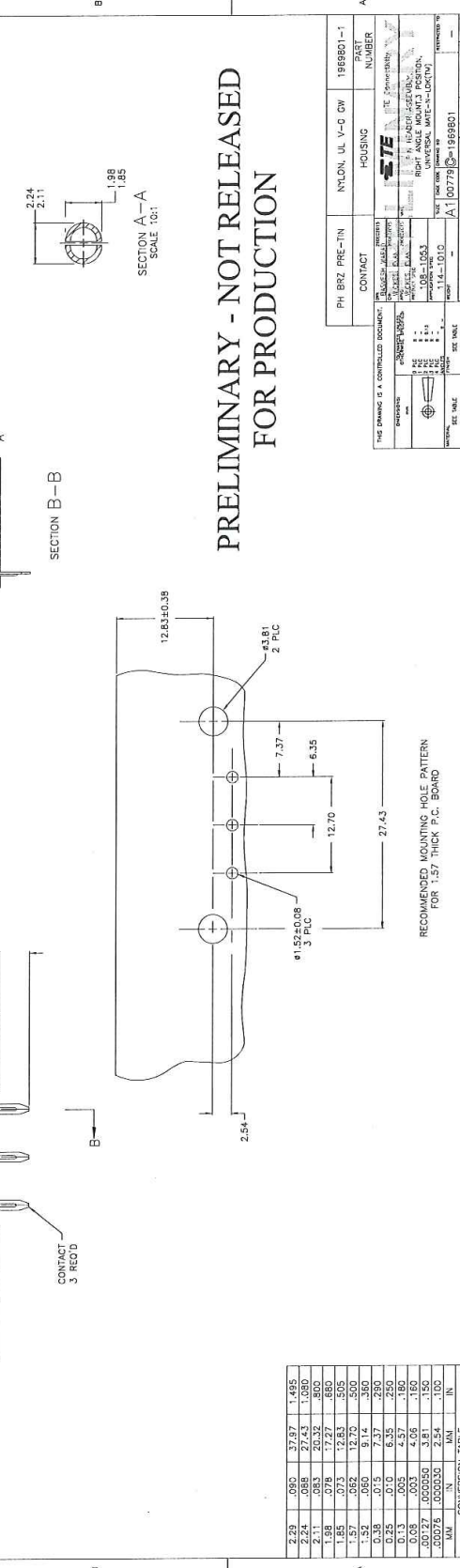
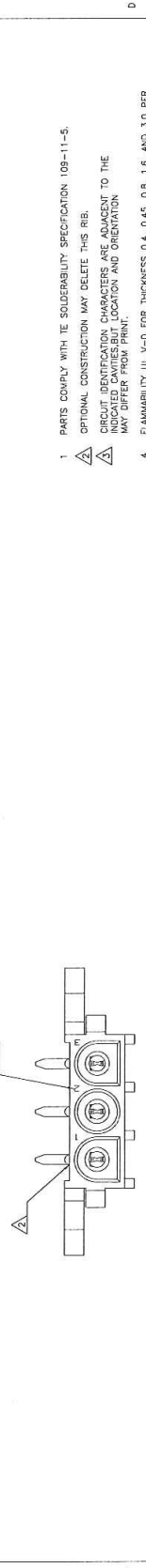
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- DIMENSIONS IN BRACKETS ARE IN INCHES.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE MOUNTING HOLES AND LOCATED AS SHOWN ON THE MANUFACTURER'S PRINT.
- TOLERANCES UNLESS OTHERWISE SPECIFIED ARE: .005 INCHES UNLESS OTHERWISE SPECIFIED.
- GLOW WIRE FLAMMABILITY (GWF): 800C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-2-12.
- GLOW WIRE IGNITION (GWI): 825C FOR THICKNESS 0.45, 800C FOR THICKNESS 1.6 AND 3.0 PER IEC 60695-2-13.



PRELIMINARY - NOT RELEASED FOR PRODUCTION

PHOSPHOR BRONZE, PRE-TIN	NYLON, UL V-D CR, NATURAL	1969799-1
PIN CONTACT MATERIAL AND FINISH	HOUSING MATERIAL	PART NO
THIS DRAWING IS A CONTROLLED DOCUMENT	SEE DRAWING FOR IDENTIFICATION	DATE
REVISIONS	DATE	BY
1		
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1969799



- 1 PARTS COMPLY WITH TE SOLDERABILITY SPECIFICATION 109-11-5.
- 2 OPTIONAL CONSTRUCTION MAY BELIEE THIS RB.
- 3 CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 4 FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.6, 1.6, AND 3.0 PER IEC 60895-11-10.
- 5 GLOW WIRE FLAMMABILITY (GWT): 80°C FOR THICKNESS 0.45, 0.6, 1.6, AND 3.0 PER IEC 60895-2-12.
- 6 GLOW WIRE IGNITION (GWI): 825°C FOR THICKNESS 0.45, 800°C FOR THICKNESS 0.6, 775°C FOR THICKNESS 1.6 AND 3.0 PER IEC 60895-2-13.

PRELIMINARY - NOT RELEASED FOR PRODUCTION

MIL-STD-19			
INCH	MILLIMETER	INCH	MILLIMETER
2.29	0.80	37.97	1.495
2.24	0.89	27.43	1.080
2.11	0.91	12.70	0.500
1.88	0.74	12.72	0.505
1.85	0.73	12.63	0.505
1.52	0.62	12.70	0.500
1.32	0.60	9.14	0.360
1.25	0.10	6.35	0.250
0.73	0.05	4.57	0.180
0.69	0.03	4.06	0.160
0.027	0.00050	3.81	0.150
0.025	0.00030	2.54	0.100

PH BRZ PRE-TIN	HOUSING	196901-1
CONTRACT	FAST NUMBER	

THIS DRAWING IS A CONTROL DOCUMENT:	
PROJECT NUMBER	196901-1
CONTRACT NUMBER	
WORK ORDER NUMBER	
DATE	14-1-1910
REV. DATE	
REV. NO.	A

RECOMMENDED MOUNTING HOLE PATTERN FOR 1.27 THICK P.L.C. BOARD

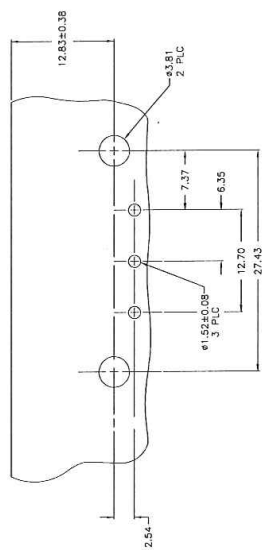
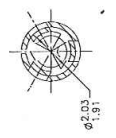
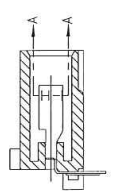
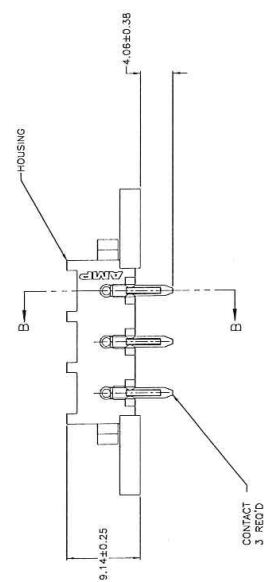
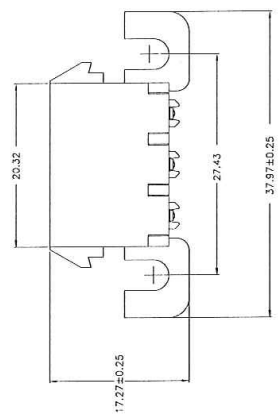
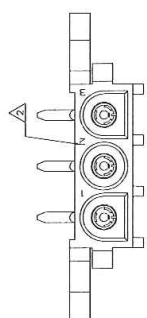
CONTRACTOR DRAWING

196901-1

196980

REV	DATE	BY	CHK	APP
1	NEW DRAWING			

- PARTS COMPLY WITH TE SOLDERABILITY SPECIFICATION 109-11-5. CIRCUIT IDENTIFICATION CHARACTERS ARE ADHERENT TO THE INDICATED CAVITIES BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6, AND 3.0 PER EC 60695-1-10.
- GLOW WIRE FLAMMABILITY (GWFI): 860°C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER EC 60695-2-12.
- GLOW WIRE IGNITION (GWIT): 825°C FOR THICKNESS 0.45, 807°C FOR THICKNESS 0.8, 775°C FOR THICKNESS 1.6 AND 3.0 PER EC 60695-2-13.



PRELIMINARY - NOT RELEASED FOR PRODUCTION

MM	CONVERSION	TABLE	IN
2.54	.100		
2.03	.080	37.87	1.495
1.57	.065	20.32	.800
1.27	.050	17.27	.680
1.27	.050	12.83	.505
0.38	.015	12.70	.500
0.13	.005	7.17	.280
0.00127	.000050	4.05	.160
0.00276	.000030	3.81	.150

PH BRZ,TIN	NYLON UL V-0 GW	HOUSING	PART NUMBER
CONTACT			1999002-1

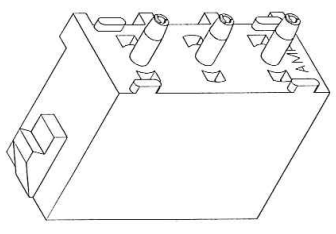
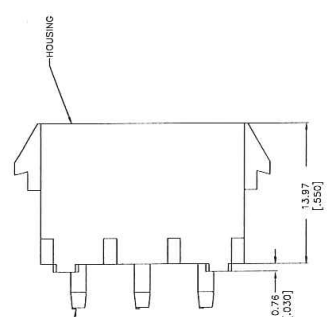
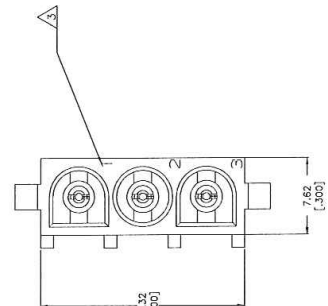
THIS DRAWING IS A CONTROLLED DOCUMENT. IT IS THE PROPERTY OF TE CONNECTIVITY. IT IS TO BE KEPT IN CONFIDENTIALITY. IT IS TO BE USED ONLY FOR THE PURPOSES SPECIFIED IN THE DRAWING. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. WITHOUT PERMISSION IN WRITING FROM TE CONNECTIVITY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS.

TE FILE: A100774(0)-1999002 CUSTOMER DRAWING

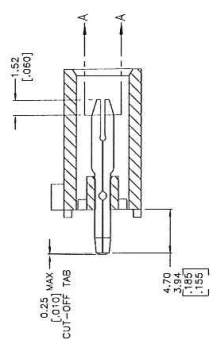
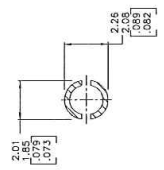
1969802

REV	DATE	BY	CHKD	DESCRIPTION
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1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
2. DIMENSIONS IN BRACKETS ARE IN INCHES.
3. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
4. FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-11-10.
5. GLOW WIRE FLAMMABILITY (GWFL) 850C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-2-2.
6. GLOW WIRE IGNITION (GWI) 850C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-2-13.



3-DIMENSIONAL MODEL
NTS

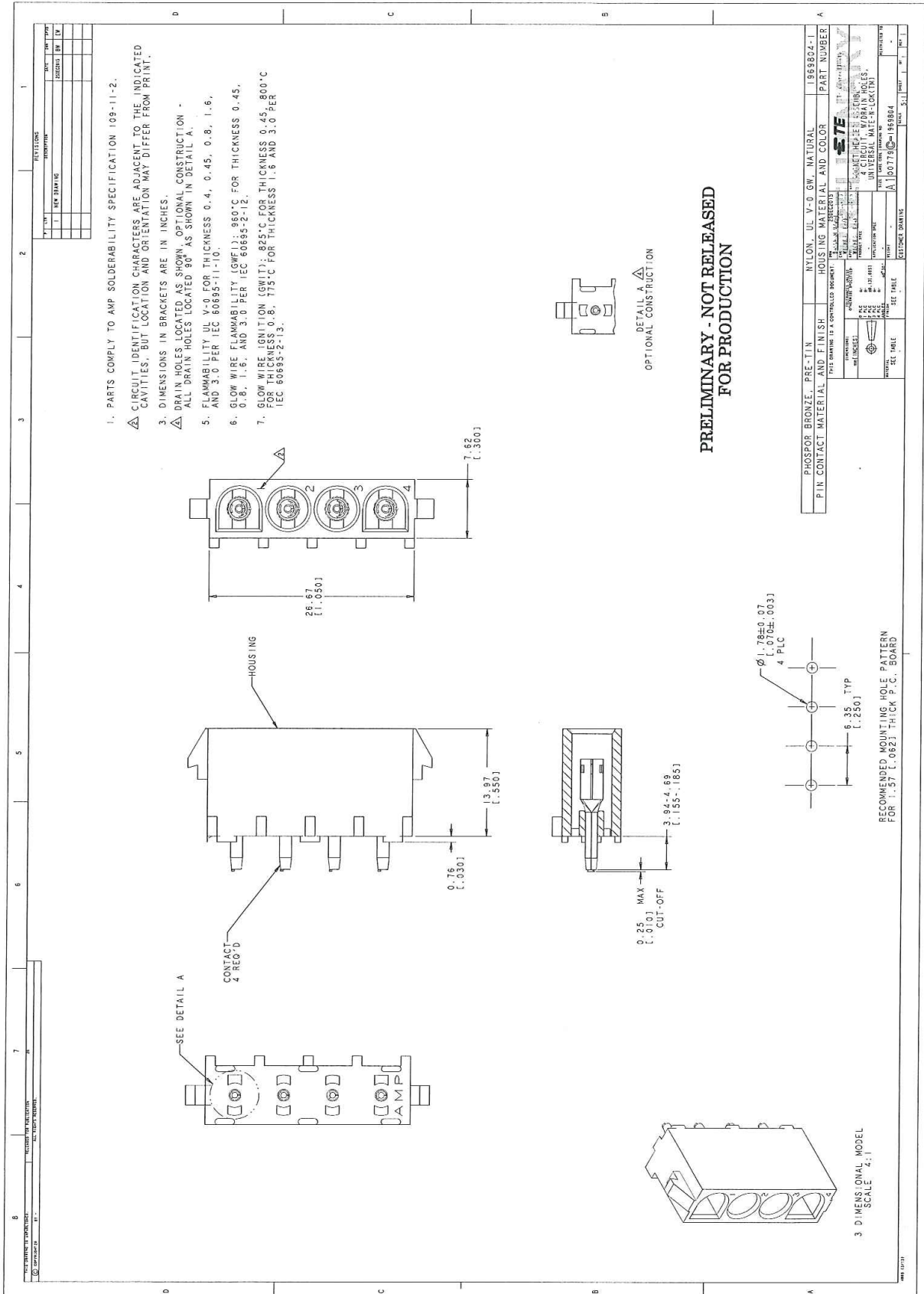


RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 [0.062] THICK P.C. BOARD

PRELIMINARY - NOT RELEASED
FOR PRODUCTION

PHOSPHOR BRONZE, PRE-TIN	NYLON, UL V-0 GW, NATURAL	1969B03-1
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THIS DRAWING IS A CONTROLLED DOCUMENT		
DATE	BY	CHKD
10/11/78	J. J. [unclear]	[unclear]
REV	DATE	BY
1	10/11/78	J. J. [unclear]
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1969B03



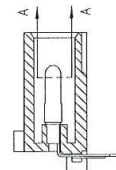
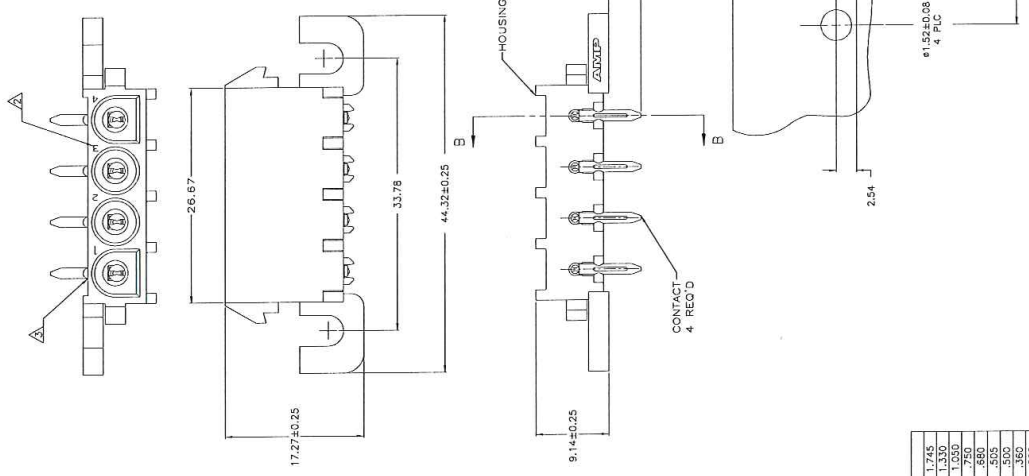
1069501

FIG 427
Project 70143056
Report 1030930
Contract 164196
LR 7189-549

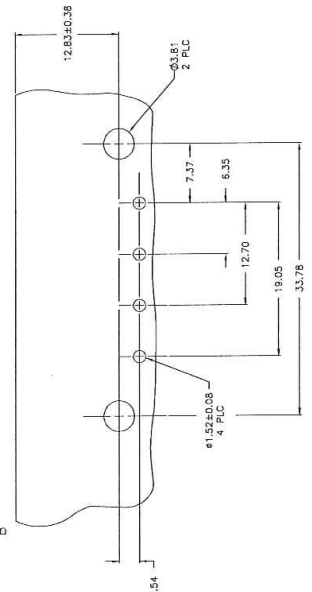
REVISIONS	DATE	BY	CHK'D BY
1			
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- 1 PARTS COMPLY WITH IEC SOLDERABILITY SPECIFICATION 109-11-5.
- 2 CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES BUT LOCATION AND ORIENTATION MAY BE DIFFER FROM PRINT.
- 3 OPTIONAL CONSTRUCTION MAY DELETE THIS RIB.
- 4 FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.5, AND 3.0 PER IEC 60695-11-10.
- 5 GLOW WIRE FLAMMABILITY (GWFT) TESTS FOR THICKNESS 0.45, 0.8, 1.5, AND 3.0 PER IEC 60695-2-12.
- 6 GLOW WIRE IGNITION (GWI) TESTS FOR THICKNESS 0.45, 0.8, 1.5, AND 3.0 PER IEC 60695-2-13.

PRELIMINARY - NOT RELEASED FOR PRODUCTION



SECTION A-A
SCALE 10:1



RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 THICK P.C. BOARD

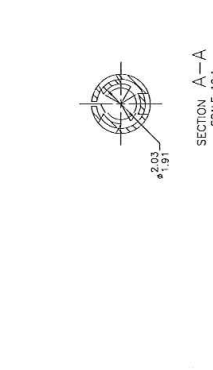
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2.24	0.90	33.78	1.330
2.24	0.86	26.67	1.050
2.11	0.93	26.67	1.050
1.88	0.78	19.05	0.750
1.57	0.63	12.83	0.505
1.52	0.60	12.70	0.500
0.35	0.15	9.14	0.350
0.25	0.10	7.37	0.250
0.08	0.03	4.57	0.100
0.0127	0.00050	4.06	0.100
MM	IN	MM	IN
MM	IN	MM	IN

PH BRZ PRE-TIN	HOUSING	PART NUMBER
NYLON, UL V-0 GW	1969505-1	
CONTACT		
THIS DRAWING IS A CONTROLLED DOCUMENT. IT IS THE PROPERTY OF ETE ELECTRONICS, INC. AND IS TO BE USED ONLY FOR THE PROJECT AND QUANTITY SPECIFIED. IT IS TO BE KEPT IN THE ORIGINAL MOUNTING POSITION. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE TO BE HOLD TO TOLERANCES SHOWN. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE TO BE HOLD TO TOLERANCES SHOWN.		
DATE	BY	CHK'D BY
10/17/75	...	...
REV	DATE	BY
1	10/17/75	...

1969805

REV	DATE	BY	CHK	APP
1				

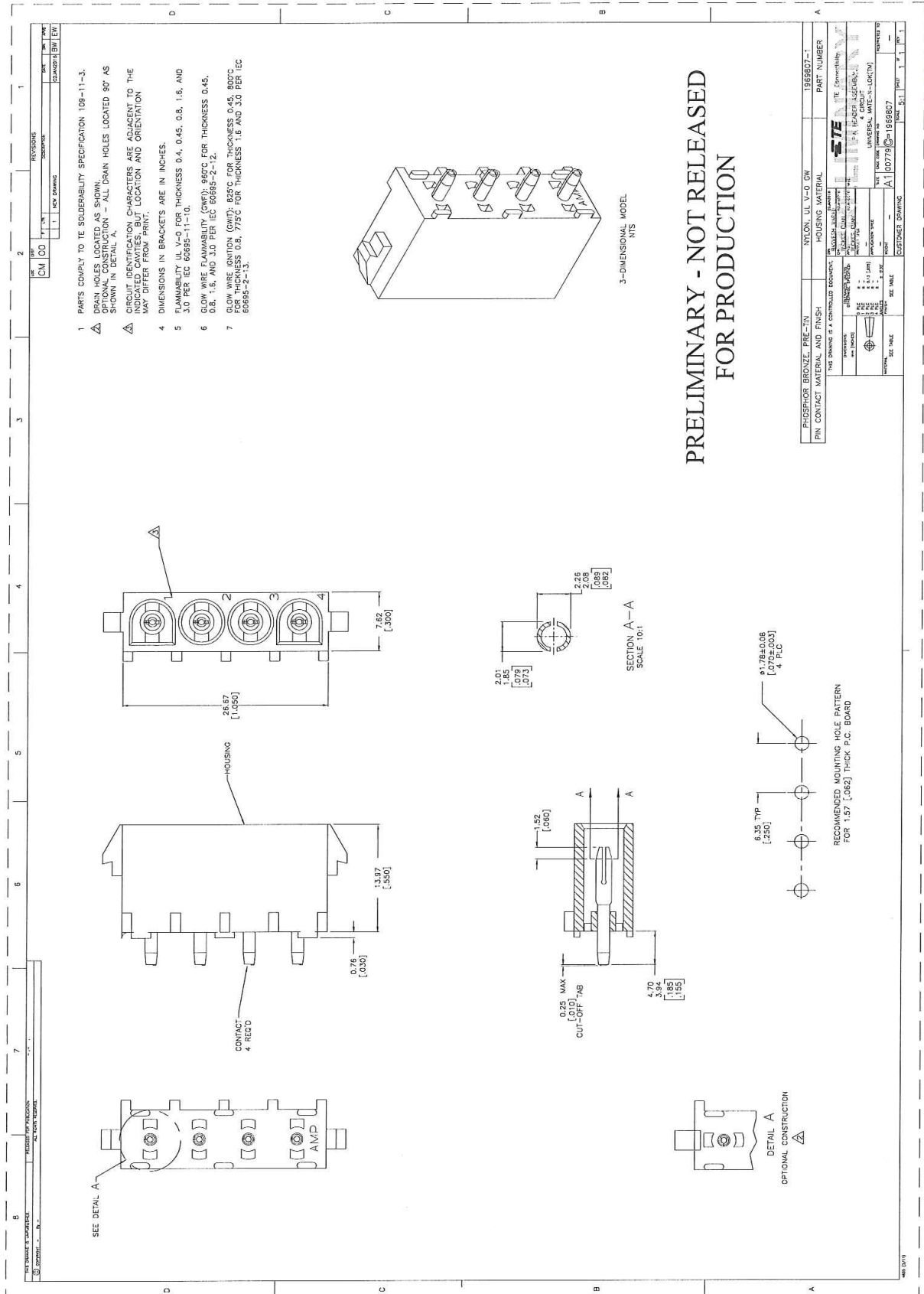
- PARTS COMPLY WITH TE SOLDERABILITY SPECIFICATION 1081-11-5.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY BE DIFFER FROM PRINT.
- FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.6, 1.6, AND 3.0 PER EC 60695-1-10.
- GLOW WIRE FLAMMABILITY (GWF), 960°C FOR THICKNESS 0.45, 0.6, 1.6, AND 3.0 PER EC 60695-2-12.
- GLOW WIRE IGNITION (GWI): 825°C FOR THICKNESS 0.45, 800°C FOR THICKNESS 0.6, 775°C FOR THICKNESS 1.6 AND 3.0 PER EC 60695-2-13.



PRELIMINARY - NOT RELEASED FOR PRODUCTION

PH BRZTLIN	NYLON, UL V-0, GW	HOUSING	PART NUMBER
CONTACT			1989806-1
THIS DRAWING IS A CONTROLLED DOCUMENT. IT IS THE PROPERTY OF THE COMPANY. IT IS TO BE KEPT IN CONFIDENCE AND NOT TO BE LOANED, REPRODUCED, COPIED, OR DISSEMINATED IN ANY MANNER WITHOUT THE WRITTEN AUTHORIZATION OF THE COMPANY.			
DATE	REV	BY	CHK
DATE	REV	BY	CHK
CUSTOMER DRAWING: A1 007791-1989806			
DRAWING NO.: 1989806-1			

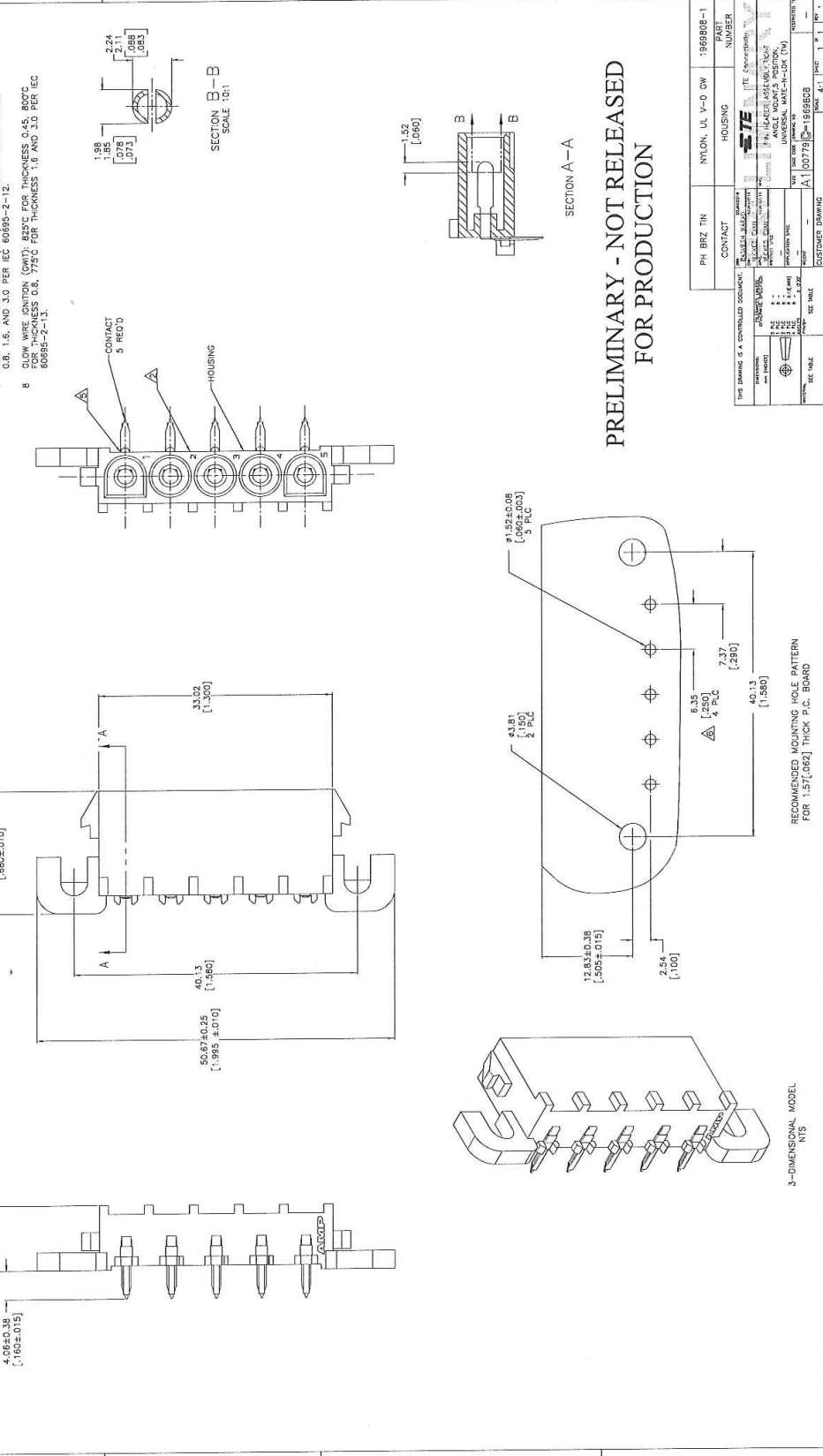
IN	MIL	CONVERSION TABLE
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2.03	.080	
1.57	.062	
1.27	.050	
0.86	.035	
0.76	.030	
0.51	.020	
0.38	.015	
0.25	.010	
0.13	.005	
0.0127	.00050	
0.0254	.00100	
0.0381	.00150	
0.0508	.00200	
0.0635	.00250	
0.0762	.00300	
0.0889	.00350	
0.1016	.00400	
0.1143	.00450	
0.1270	.00500	
0.1397	.00550	
0.1524	.00600	
0.1651	.00650	
0.1778	.00700	
0.1905	.00750	
0.2032	.00800	
0.2159	.00850	
0.2286	.00900	
0.2413	.00950	
0.2540	.01000	
0.2667	.01050	
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0.3683	.01450	
0.3810	.01500	
0.3937	.01550	
0.4064	.01600	
0.4191	.01650	
0.4318	.01700	
0.4445	.01750	
0.4572	.01800	
0.4699	.01850	
0.4826	.01900	
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0.6223	.02450	
0.6350	.02500	
0.6477	.02550	
0.6604	.02600	
0.6731	.02650	
0.6858	.02700	
0.6985	.02750	
0.7112	.02800	
0.7239	.02850	
0.7366	.02900	
0.7493	.02950	
0.7620	.03000	
0.7747	.03050	
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0.8255	.03250	
0.8382	.03300	
0.8509	.03350	
0.8636	.03400	
0.8763	.03450	
0.8890	.03500	
0.9017	.03550	
0.9144	.03600	
0.9271	.03650	
0.9398	.03700	
0.9525	.03750	
0.9652	.03800	
0.9779	.03850	
0.9906	.03900	
1.0033	.03950	
1.0160	.04000	
1.0287	.04050	
1.0414	.04100	
1.0541	.04150	
1.0668	.04200	
1.0795	.04250	
1.0922	.04300	
1.1049	.04350	
1.1176	.04400	
1.1303	.04450	
1.1430	.04500	
1.1557	.04550	
1.1684	.04600	
1.1811	.04650	
1.1938	.04700	
1.2065	.04750	
1.2192	.04800	
1.2319	.04850	
1.2446		



PRELIMINARY - NOT RELEASED
 FOR PRODUCTION

1969807

REV.	DATE	BY	CHK.	APP.	DESCRIPTION
1					NEW DRAWING



PRELIMINARY - NOT RELEASED FOR PRODUCTION

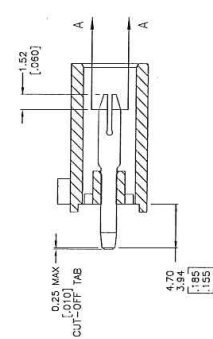
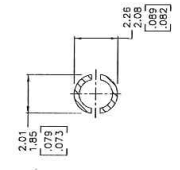
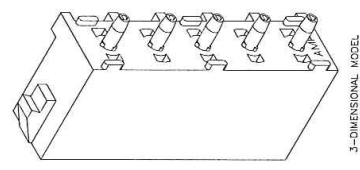
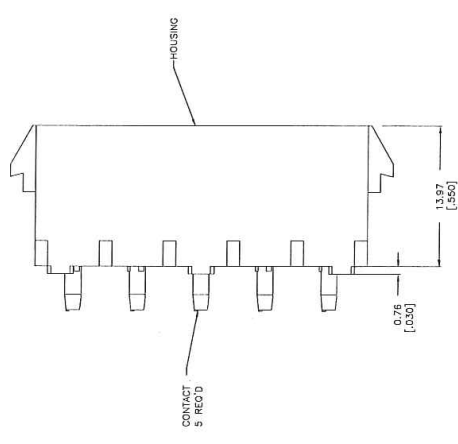
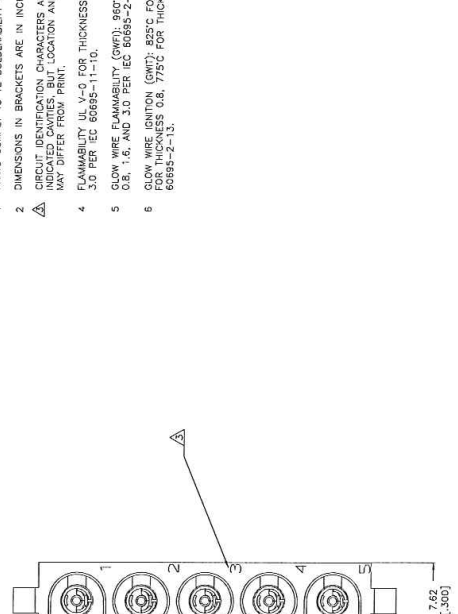
CONTRACT	HOUSING	PART NUMBER
PH BRZ TIN	NYLON, UL V-0 GW	1969808-1

THIS DRAWING IS A CONTROLLED DOCUMENT:	
REVISIONS	DATE
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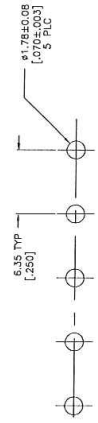
1969808

REV	DATE	BY	CHK	APP	DESCRIPTION
1					ISSUE FOR PRODUCTION

- 1 PARTS COMPLY TO THE SOLDERABILITY SPECIFICATION 109-11-3.
- 2 DIMENSIONS IN BRACKETS ARE IN INCHES.
- 3 CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 4 FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-11-10.
- 5 GLOW WIRE FLAMMABILITY (GWF): 860C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-2-12.
- 6 GLOW WIRE IGNITION (GWI): 825C FOR THICKNESS 0.45, 800C FOR THICKNESS 0.8, 775C FOR THICKNESS 1.6 AND 3.0 PER IEC 60695-2-13.



PRELIMINARY - NOT RELEASED
FOR PRODUCTION



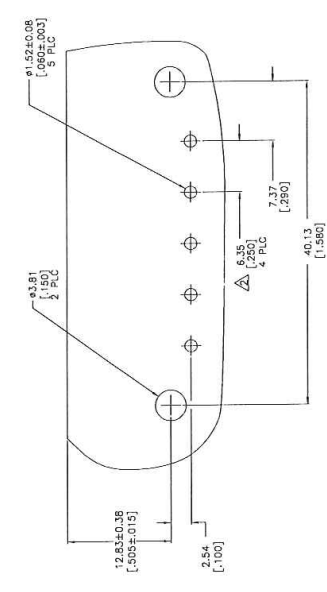
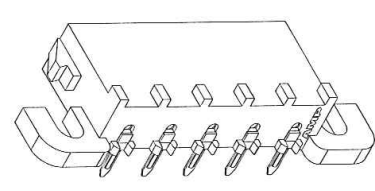
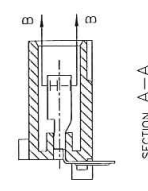
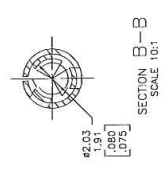
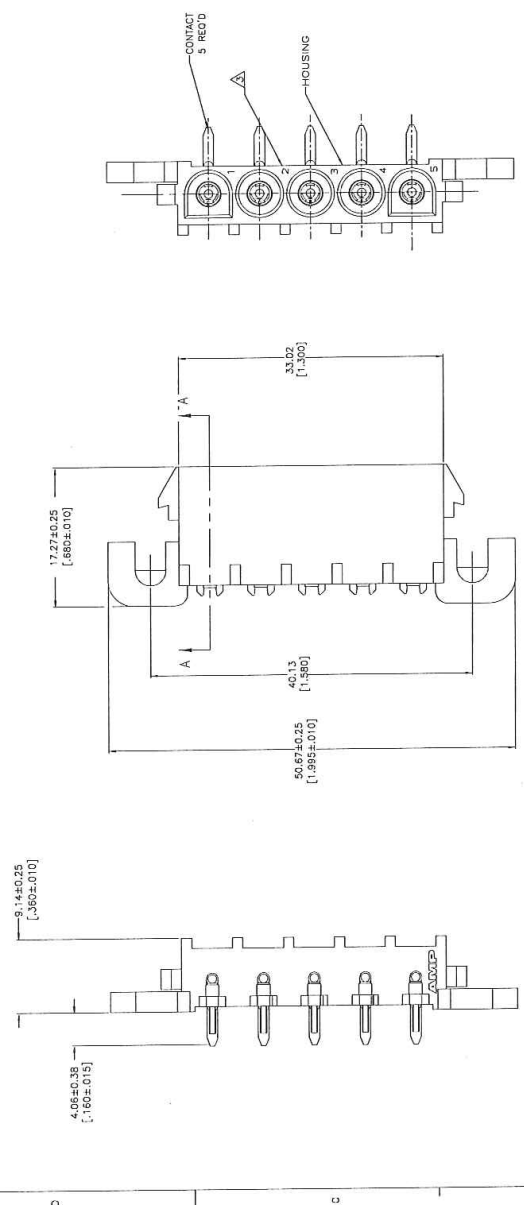
RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 [0.062] THICK P.C. BOARD

PROSPHOR BRONZE, PRE-TIN	HOUSING MATERIAL	NYLON, UL V-0 GW, NATURAL	1969B09-1
PIN CONTACT	MATERIAL AND FINISH		PART NUMBER
THIS DRAWING IS A CONTROLLED DOCUMENT			
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
GROUP 1	GROUP 1	GROUP 1	GROUP 1
DATE	BY	CHK	APP
10/27/79	AW	AW	AW
UNIVERSAL MILITARY-OK			
CUSTOMER DRAWING Part 5-1 Part 1 of 1			

1969B09

REV	DATE	BY	CHK'D	APP'D
1				
2				
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- PARTS COMPLY WITH TE SOLDERABILITY SPECIFICATION 109-11-5.
- TOLERANCE NON-CUMULATIVE
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.
- FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.6, 1.6, AND 3.0 PER IEC 60895-11-11.6.
- CLOW WIRE FLAMMABILITY (GWFT): 807C FOR THICKNESS 0.45, 0.6, 1.6, AND 3.0 PER IEC 60895-2-1.2.
- CLOW WIRE IGNITION (GWIT): 822C FOR THICKNESS 0.45, 807C FOR THICKNESS 0.6, 775C FOR THICKNESS 1.6 AND 3.0 PER IEC 60895-2-1.1.



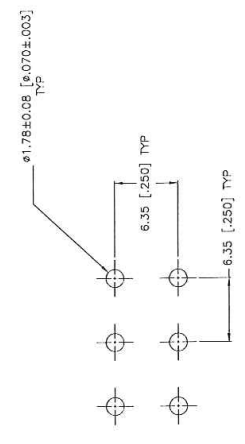
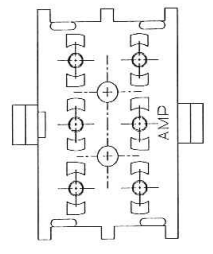
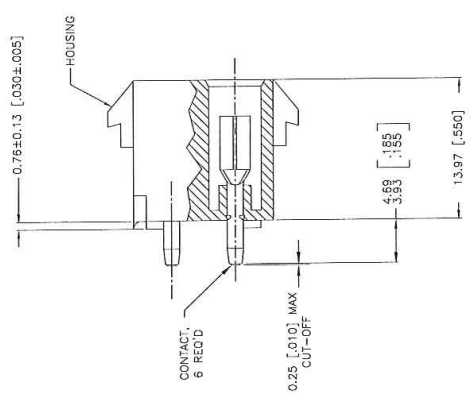
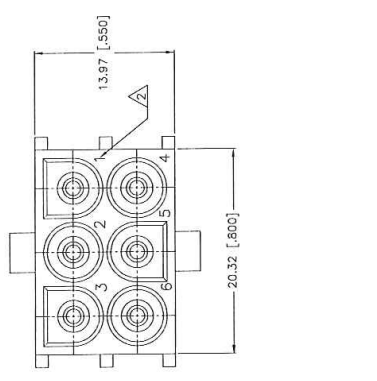
PRELIMINARY - NOT RELEASED FOR PRODUCTION

PH BRZ PRE-TIN	NYLON, UL V-0 OW	HOUSING	18688-10-1
CONTACT			PART NUMBER

1969810

REV	DATE	BY	CHK'D	APP'D
1				
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- 1 PARTS MUST COMPLY WITH AMP SOLDERABILITY SPEC 109-11-3.
- 2 CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3 FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6, AND 3.0 PER IEC 60898-11-10.
- 4 GLOW WIRE FLAMMABILITY (GWF): 960°C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER IEC 60895-2-12.
- 5 GLOW WIRE IGNITION (GWI): 825°C FOR THICKNESS 0.45, 800°C FOR THICKNESS 0.8, 775°C FOR THICKNESS 1.6 AND 3.0 PER IEC 60895-2-13.



RECOMMENDED LAYOUT FOR 1.58 [082] THICK PC BOARD

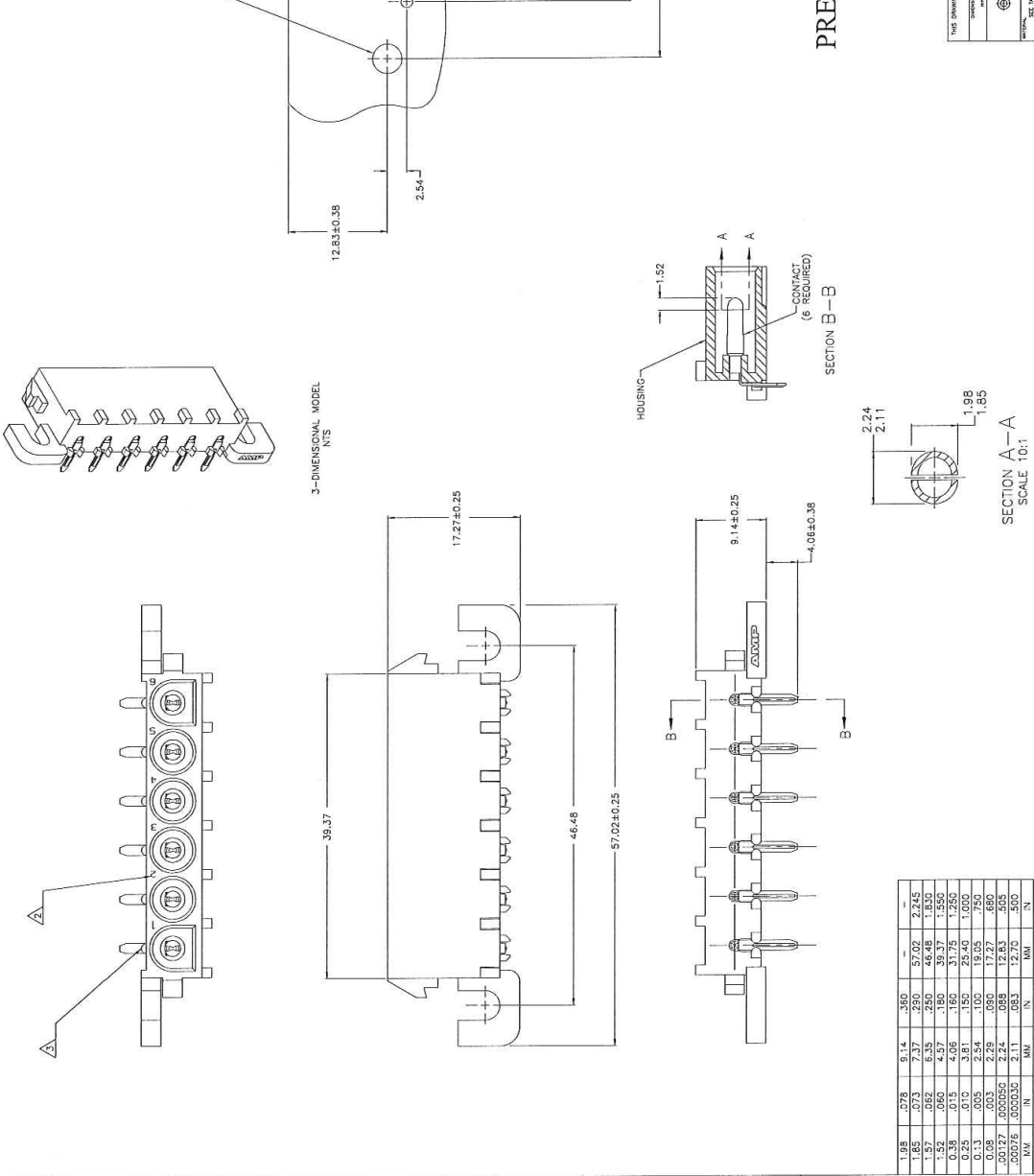
**PRELIMINARY - NOT RELEASED
FOR PRODUCTION**

PH BRZ TIN	NYLON, UL V-0 GW, NATURAL	1969B11-1
CONTACT	HOUSING	PART NO
THE DRAWING IS A CONTROLLED DOCUMENT. IT IS THE PROPERTY OF THE COMPANY AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.		
DATE	BY	CHK'D
10/11/93	J. J. J.	J. J. J.
REV	DATE	BY
1	10/11/93	J. J. J.
2		
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1969811

REV	DATE	BY	CHKD	DESCRIPTION
1				ISSUED FOR PRODUCTION
2				REVISIONS
3				1. 1.57 THICK BOARD
4				
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- 1 PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 108-11-5.
- 2 CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CANNESBUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 3 OPTIONAL CONSTRUCTION MAY DELETE THIS RIB.
- 4 FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-11-10.
- 5 GLOW WIRE FLAMMABILITY (GWFI): 967°C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-2-12.
- 6 GLOW WIRE IGNITION (GWIT): 85°C FOR THICKNESS 0.45, 967°C FOR THICKNESS 0.8, 775°C FOR THICKNESS 1.6 AND 3.0 PER IEC 60695-2-13.



PRELIMINARY - NOT RELEASED
FOR PRODUCTION

CONVERSION TABLE

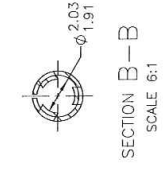
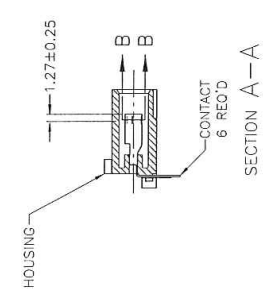
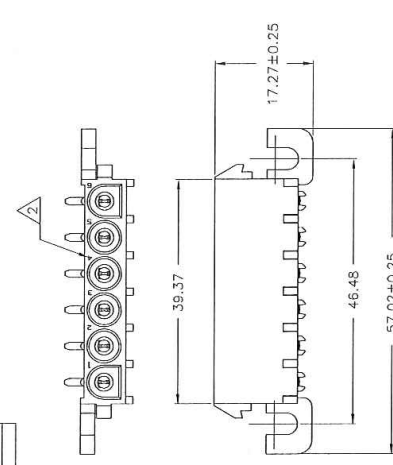
IN		MM	
1.00	25.40	0.01	0.25
0.10	2.54	0.02	0.50
0.01	0.25	0.05	1.27
0.001	0.025	0.10	2.54
0.0001	0.0025	0.20	5.08
0.00001	0.00025	0.50	12.70
0.000001	0.000025	1.00	25.40
0.0000001	0.0000025	2.00	50.80
0.00000001	0.00000025	5.00	127.00
0.000000001	0.000000025	10.00	254.00
0.0000000001	0.0000000025	25.00	635.00
0.00000000001	0.00000000025	50.00	1270.00
0.000000000001	0.000000000025	100.00	2540.00
0.0000000000001	0.0000000000025	250.00	6350.00
0.00000000000001	0.00000000000025	500.00	12700.00

PH	BRZ	TIN/NLON	UL V-0	GM	1969812-1
CONTACT	HOUSING				PART NO
TE Connectivity					
PN HEADQUARTERS					
UNIVERSAL MATE-N-LOCK™					
A 10077800-1969812					
CUSTOMER DRAWING					

1969812

REV. NO.	DATE	DESCRIPTION
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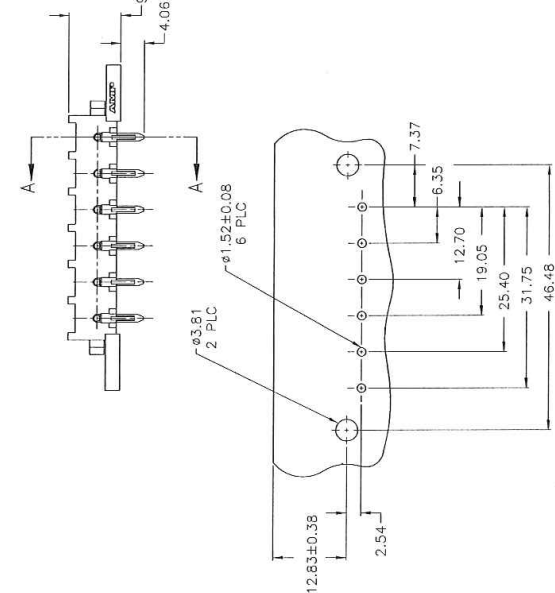
- 1 PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5. CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- 2
- 3 FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6, AND 3.0 PER IEC 60895-11-10.
- 4 GLOW WIRE FLAMMABILITY (GWFI): 960°C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER IEC 60895-2-12.
- 5 GLOW WIRE IGNITION (GWIT): 825°C FOR THICKNESS 0.45, 800°C FOR THICKNESS 0.8, 775°C FOR THICKNESS 1.6 AND 3.0 PER IEC 60895-2-13.



PRELIMINARY - NOT RELEASED FOR PRODUCTION

PH BRZ TIN	NYLON, UL V-0 GW	1969813-1
CONTACT	HOUSING	PART NO

DESIGN APPROVAL	DATE	BY
DESIGNED BY	DATE	BY
CHECKED BY	DATE	BY
APPROVED BY	DATE	BY
SIZE	SCALE	DRAWING NO.
WEIGHT	APPROVAL SIGNATURE	RESTRICTED TO
SEE TABLE	—	AZ00779
SEE TABLE	—	1969813
SEE TABLE	—	Page 2 of 1

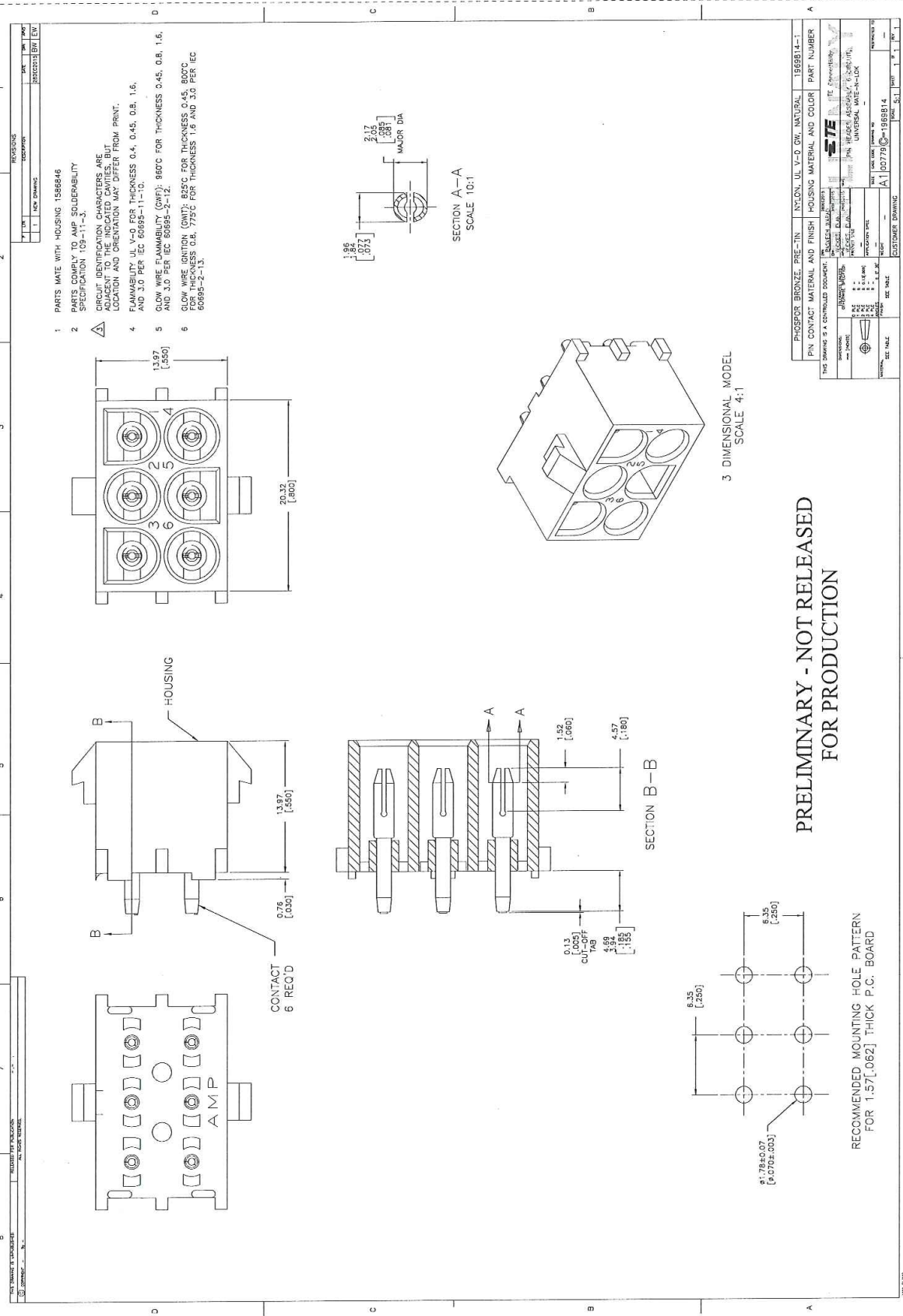


RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 THICK P.C. BOARD

MM	IN	MM	IN
3.81	.150	57.02	2.245
2.54	.100	46.48	1.830
2.03	.080	39.37	1.550
1.91	.075	31.75	1.250
1.57	.062	25.40	1.000
1.52	.060	19.05	.750
1.27	.050	17.27	.680
0.38	.015	12.83	.505
0.25	.010	12.70	.500
0.13	.005	9.14	.360
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0.00127	.000050	6.35	.250
0.00076	.000030	4.06	.160

CONVERSION TABLE

1969813

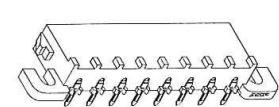


PRELIMINARY - NOT RELEASED FOR PRODUCTION

RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57[.062] THICK P.C. BOARD

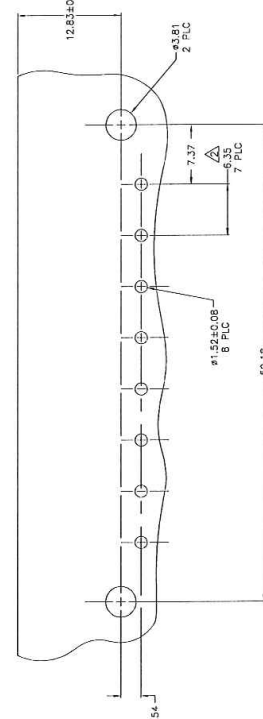
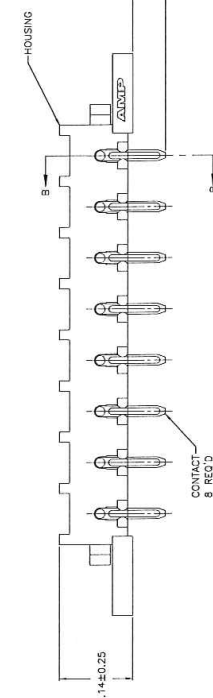
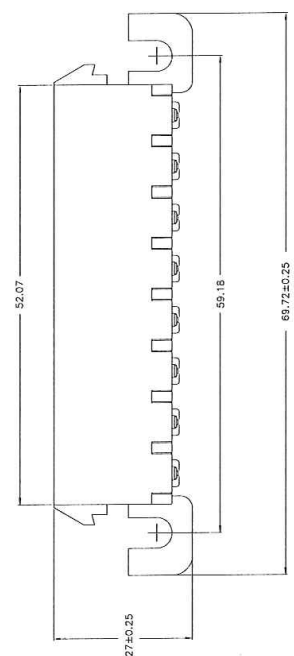
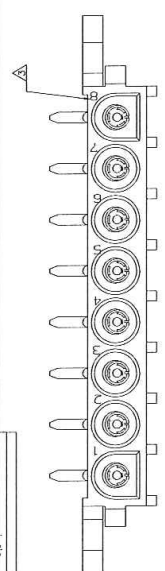
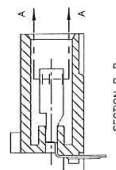
REVISIONS	DATE	BY	APP'D
1	10/20/66	WJW	WJW
1. LOCK DRAWING			

- PARTS COMPLY WITH AMP SOLDERABILITY SPECIFICATION 109-11-5. TOLERANCE NON-CUMULATIVE.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.5, AND 3.0 PER IEC 60895-11-10.
- FLAMMABILITY (GMPL) 987C FOR THICKNESS 0.45, 0.6, 1.5, AND 3.0 PER IEC 60895-2-12.
- FLAMMABILITY (GMPL) 987C FOR THICKNESS 0.45, 0.6, 1.5, AND 3.0 PER IEC 60895-2-12.
- FLAMMABILITY (GMPL) 987C FOR THICKNESS 1.8 AND 3.0 PER IEC 60895-2-13.



3-DIMENSIONAL MODEL
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**PRELIMINARY - NOT RELEASED
FOR PRODUCTION**

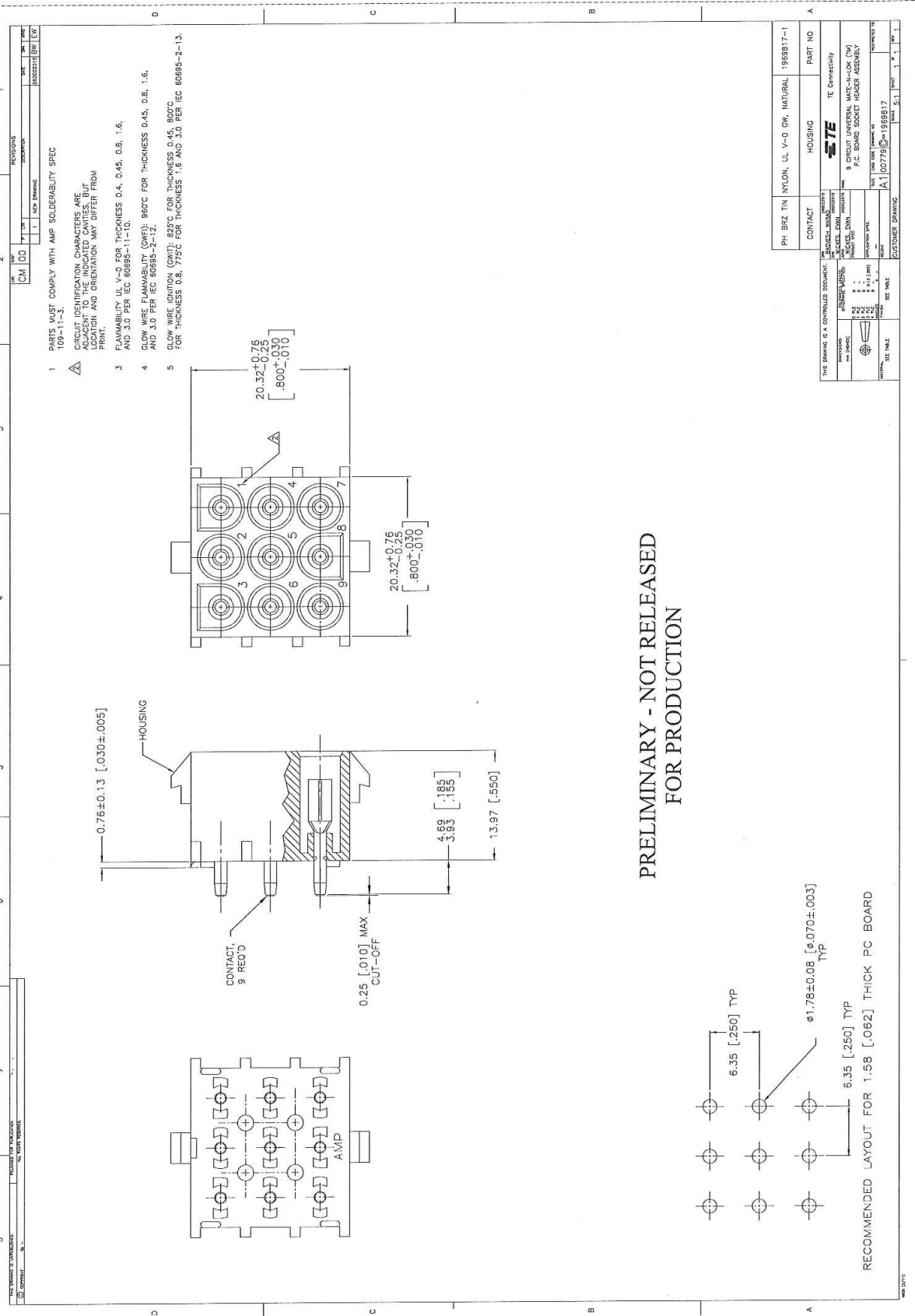


RECOMMENDED MOUNTING HOLE PATTERN
FOR 1.57 THICK P.C. BOARD

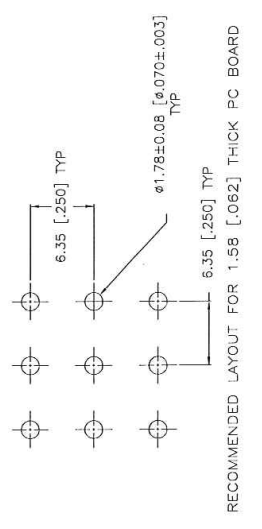
MM	IN	MM	IN
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1.57	0.062	59.18	2.330
1.27	0.050	17.27	0.680
0.38	0.015	9.14	0.360
0.25	0.010	4.06	0.160
0.00127	0.000050	3.81	0.150
0.00076	0.000030	2.54	0.100

PH BRZ TIN NYLON, UL V-0 CW	196818-B-1
CONTRACT	HOUSING
IE Connectivity	PART NO
ROCKET HEAD ASSEMBLY	UNIVERSAL MATE-A-DUTY
100775 (P-196818)	196818
100775 (P-196818)	196818
100775 (P-196818)	196818

1969816



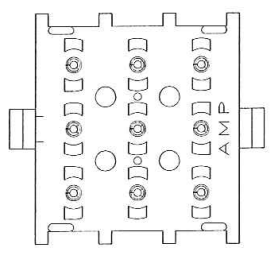
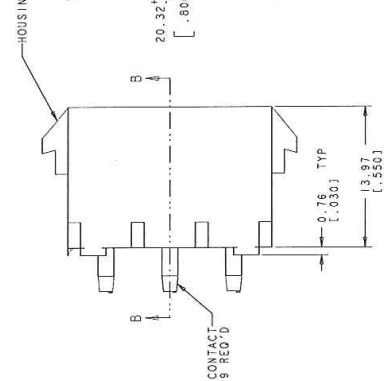
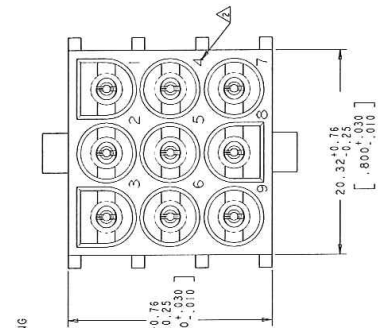
PRELIMINARY - NOT RELEASED
FOR PRODUCTION



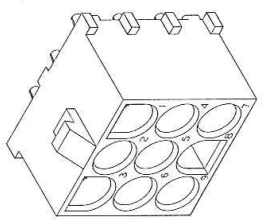
REV	DATE	BY	CHKD	DESCRIPTION
1	12/1/68	WJ	WJ	REVISED TO MEET MIL-PRC-17500

REV	DATE	BY	CHKD	DESCRIPTION
1	12/1/68	WJ	WJ	REVISED TO MEET MIL-PRC-17500

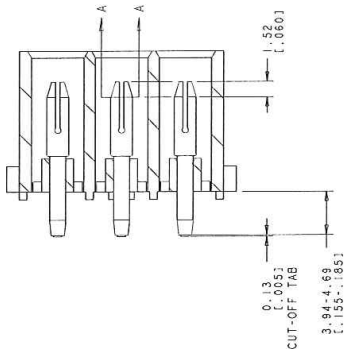
- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- FLAMMABILITY UL V-0 FOR THICKNESS 0.4, 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-11-10.
- GLOW WIRE FLAMMABILITY (GWI1): 800°C FOR THICKNESS 0.45, 0.8, 1.6, AND 3.0 PER IEC 60695-2-12.
- GLOW WIRE IGNITION (GWI1): 825°C FOR THICKNESS 0.45, 800°C FOR THICKNESS 0.8, 175°C FOR THICKNESS 1.6 AND 3.0 PER IEC 60695-2-13.



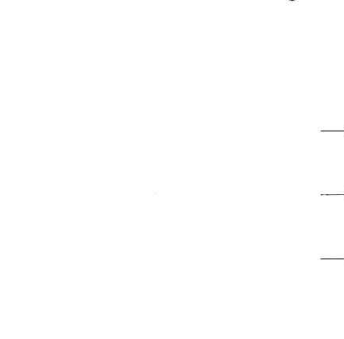
PRELIMINARY - NOT RELEASED FOR PRODUCTION



SCALE 4:1



SECTION A-A
SCALE 10:1



SECTION B-B

RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 ± .0621 THICK P.C. BOARD

PHOSPOR BRONZE, PRE-TIN		NYLON, UL V-0 SW, NATURAL		1389818-1
PIN CONTACT MATERIAL AND FINISH		HOUSING MATERIAL AND COLOR		PART NUMBER
THIS DRAWING IS A CONTROLLED DOCUMENT.				
UNCLASSIFIED	CONTROLLED	UNCLASSIFIED	CONTROLLED	DATE
DATE	BY	DATE	BY	DATE
12/1/68	WJ	12/1/68	WJ	12/1/68
DRAWN BY: WJ		CHECKED BY: WJ		DATE: 12/1/68
DESIGNED BY: WJ		APPROVED BY: WJ		SCALE: AS SHOWN
MATERIAL: PHOSPOR BRONZE, PRE-TIN		MATERIAL: NYLON, UL V-0 SW, NATURAL		REVISED TO: 1389818-1
FINISH: 100% TIN		FINISH: NATURAL		UNIVERSAL MATERIAL (UM)
PART NUMBER: 1389818-1		PART NUMBER: 1389818-1		UNIVERSAL MATERIAL (UM)
MATERIAL: PHOSPOR BRONZE, PRE-TIN		MATERIAL: NYLON, UL V-0 SW, NATURAL		UNIVERSAL MATERIAL (UM)
FINISH: 100% TIN		FINISH: NATURAL		UNIVERSAL MATERIAL (UM)
PART NUMBER: 1389818-1		PART NUMBER: 1389818-1		UNIVERSAL MATERIAL (UM)
MATERIAL: PHOSPOR BRONZE, PRE-TIN		MATERIAL: NYLON, UL V-0 SW, NATURAL		UNIVERSAL MATERIAL (UM)
FINISH: 100% TIN		FINISH: NATURAL		UNIVERSAL MATERIAL (UM)
PART NUMBER: 1389818-1		PART NUMBER: 1389818-1		UNIVERSAL MATERIAL (UM)

1969818

FIG 441
Project 70143056
Report 1030930
Contract 164196
LR 7189-549

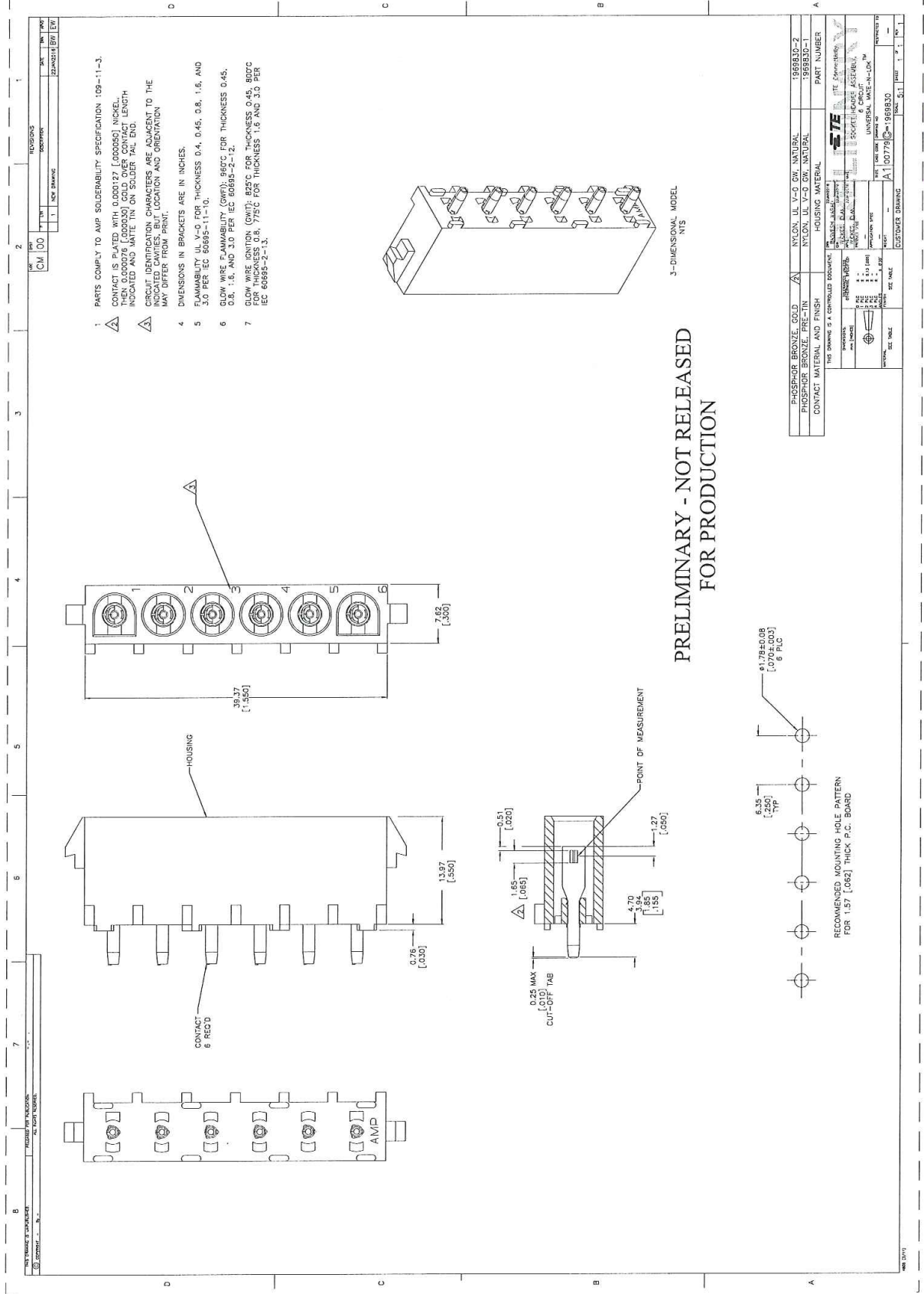
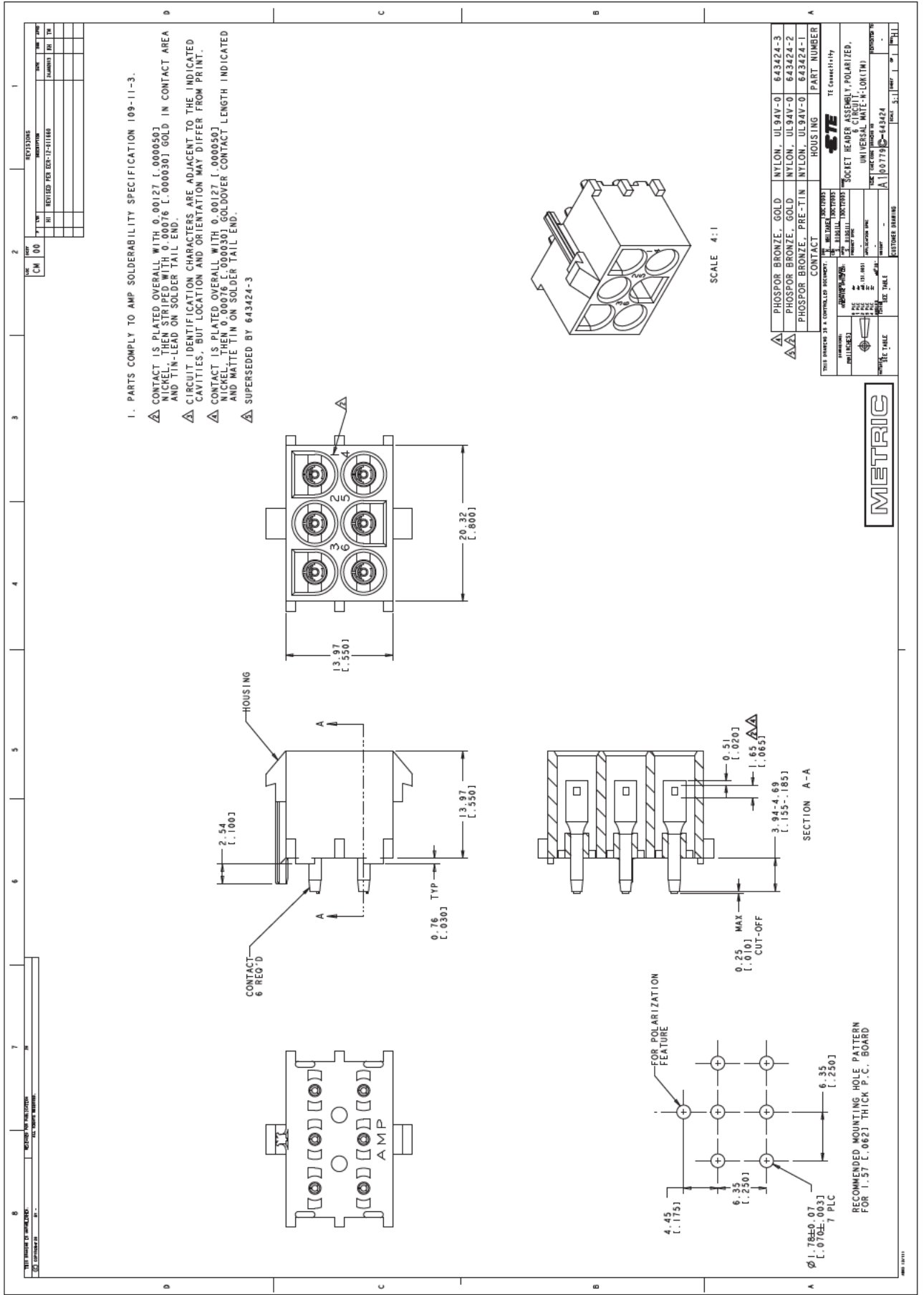


FIG 442
 Project 70143056
 Report 1030930
 Contract 164196
 LR 7189-549



1. PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.

- △ CONTACT IS PLATED OVERALL WITH 0.00127 (L. 0000503) NICKEL, THEN STRIPED WITH 0.00076 (L. 0000303) GOLD IN CONTACT AREA AND TIN-LEAD ON SOLDER TAIL END.
- △ CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- △ CONTACT IS PLATED OVERALL WITH 0.00127 (L. 0000503) NICKEL, THEN 0.00076 (L. 0000303) GOLDOVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.
- △ SUPERSEDED BY 643424-3

SCALE 4:1

△	PHOSFOR BRONZE, GOLD	NYLON, UL94V-0	643424-3
△	PHOSFOR BRONZE, GOLD	NYLON, UL94V-0	643424-2
△	PHOSFOR BRONZE, PRE-TIN	NYLON, UL94V-0	643424-1

THIS DRAWING IS CONTROLLED DOCUMENT		TE Connectivity	
REVISED FOR	DATE	REVISED FOR	DATE
00	10/11/00	00	10/11/00
DRAWN BY: J. W. HAY		CHECKED BY: J. W. HAY	
DESIGNED BY: J. W. HAY		APPROVED BY: J. W. HAY	
DATE: 10/11/00		DATE: 10/11/00	
SCALE: 4:1		SCALE: 4:1	
CUSTOMER DRAWING: A100775-643424		CUSTOMER DRAWING: A100775-643424	
PART NUMBER: 643424-3		PART NUMBER: 643424-3	
HOUSING: NYLON, UL94V-0		HOUSING: NYLON, UL94V-0	
CONTACT: PHOSFOR BRONZE, GOLD		CONTACT: PHOSFOR BRONZE, GOLD	
MATERIAL: NYLON, UL94V-0		MATERIAL: NYLON, UL94V-0	
FINISH: GOLD		FINISH: GOLD	
POLARIZATION: POLARIZED		POLARIZATION: POLARIZED	
CIRCUIT: 6 PIN		CIRCUIT: 6 PIN	
MOUNTING: 1.57 THICK P.C. BOARD		MOUNTING: 1.57 THICK P.C. BOARD	
DRAWN BY: J. W. HAY		DRAWN BY: J. W. HAY	
CHECKED BY: J. W. HAY		CHECKED BY: J. W. HAY	
APPROVED BY: J. W. HAY		APPROVED BY: J. W. HAY	
DATE: 10/11/00		DATE: 10/11/00	
SCALE: 4:1		SCALE: 4:1	
CUSTOMER DRAWING: A100775-643424		CUSTOMER DRAWING: A100775-643424	



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 (L. 062) THICK P.C. BOARD

FIG 443
Project 70143056
Report 1030930
Contract 164196
LR 7189-549

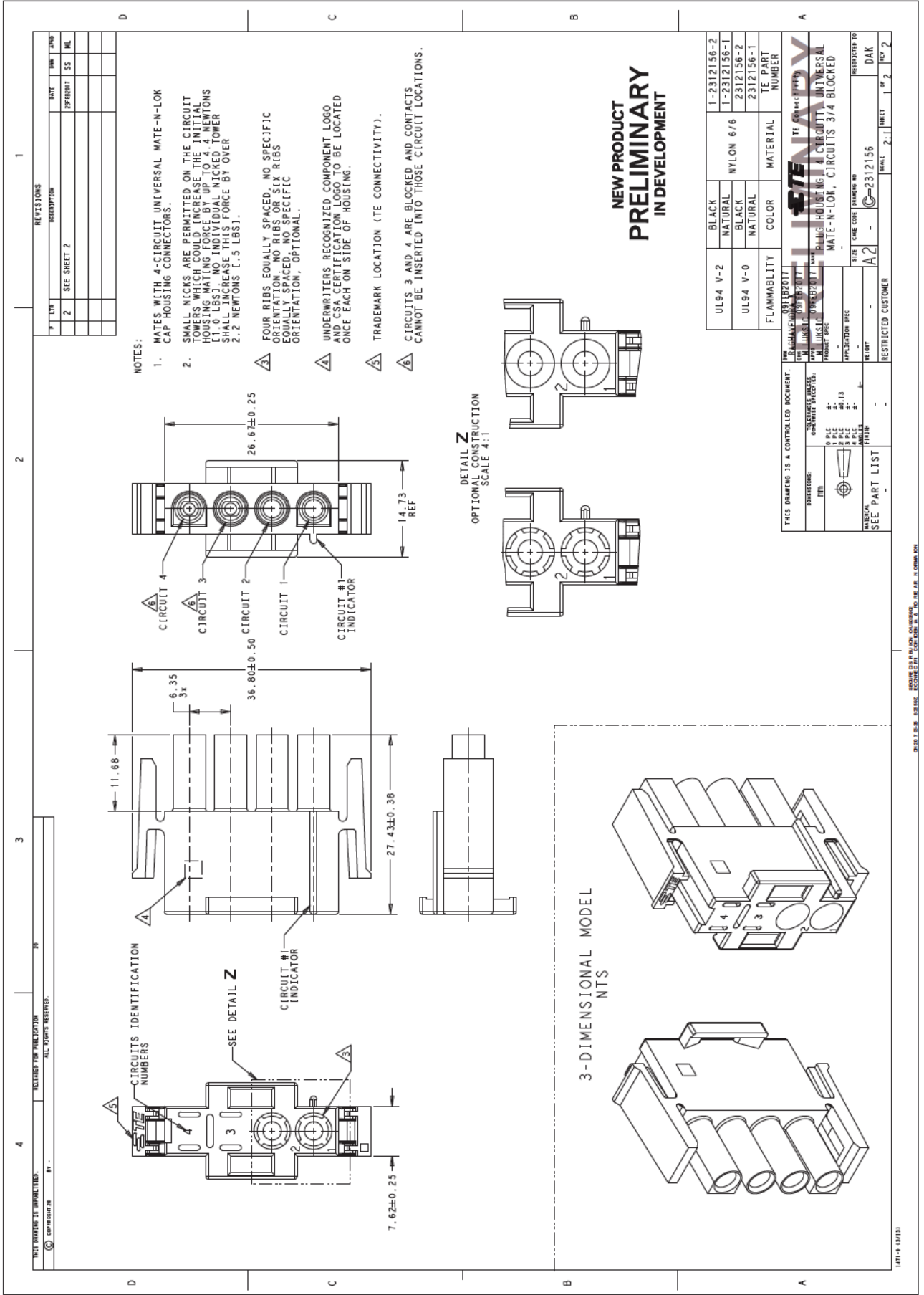


FIG 444
Project 70143056
Report 1030930
Contract 164196
LR 7189-549

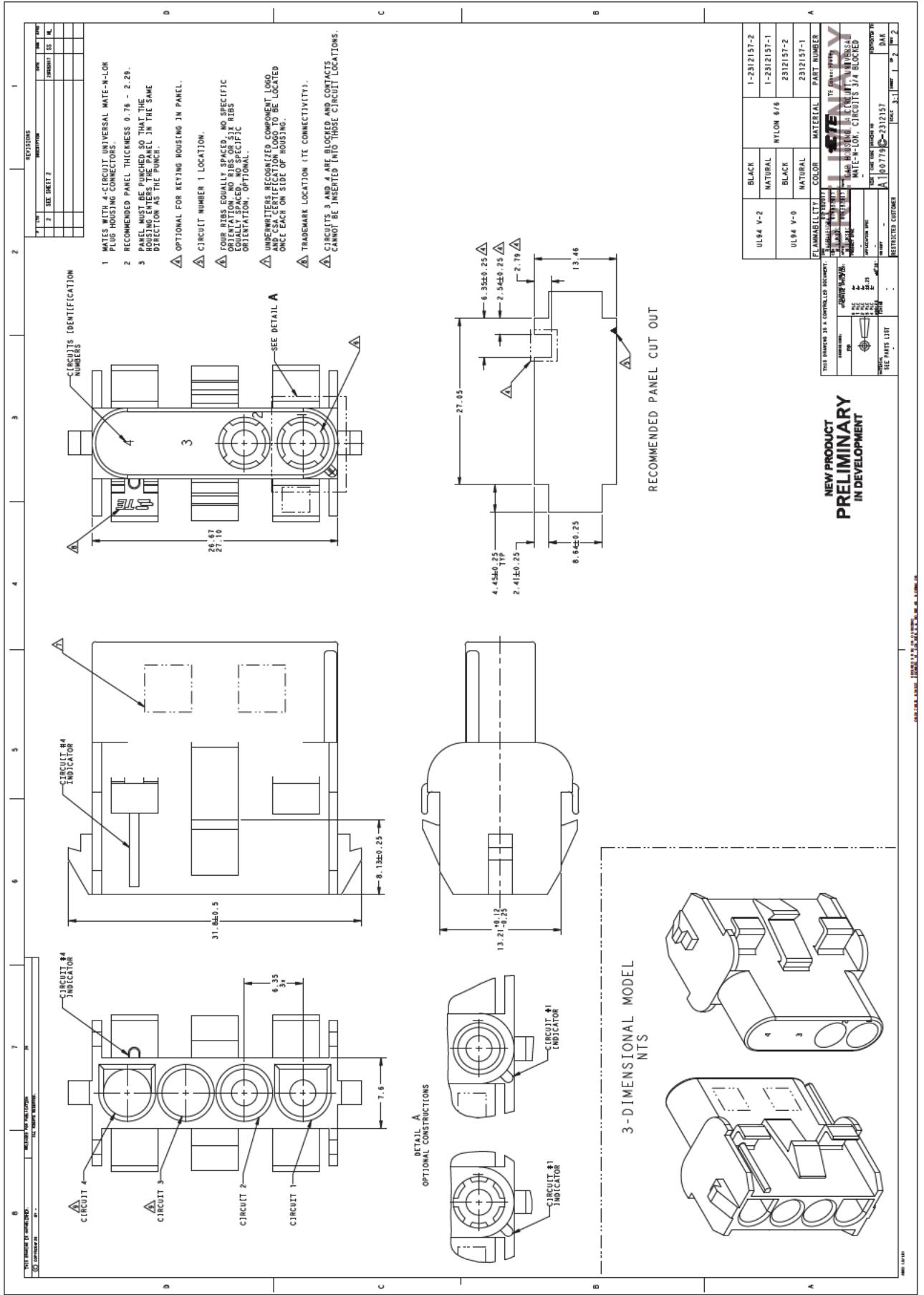
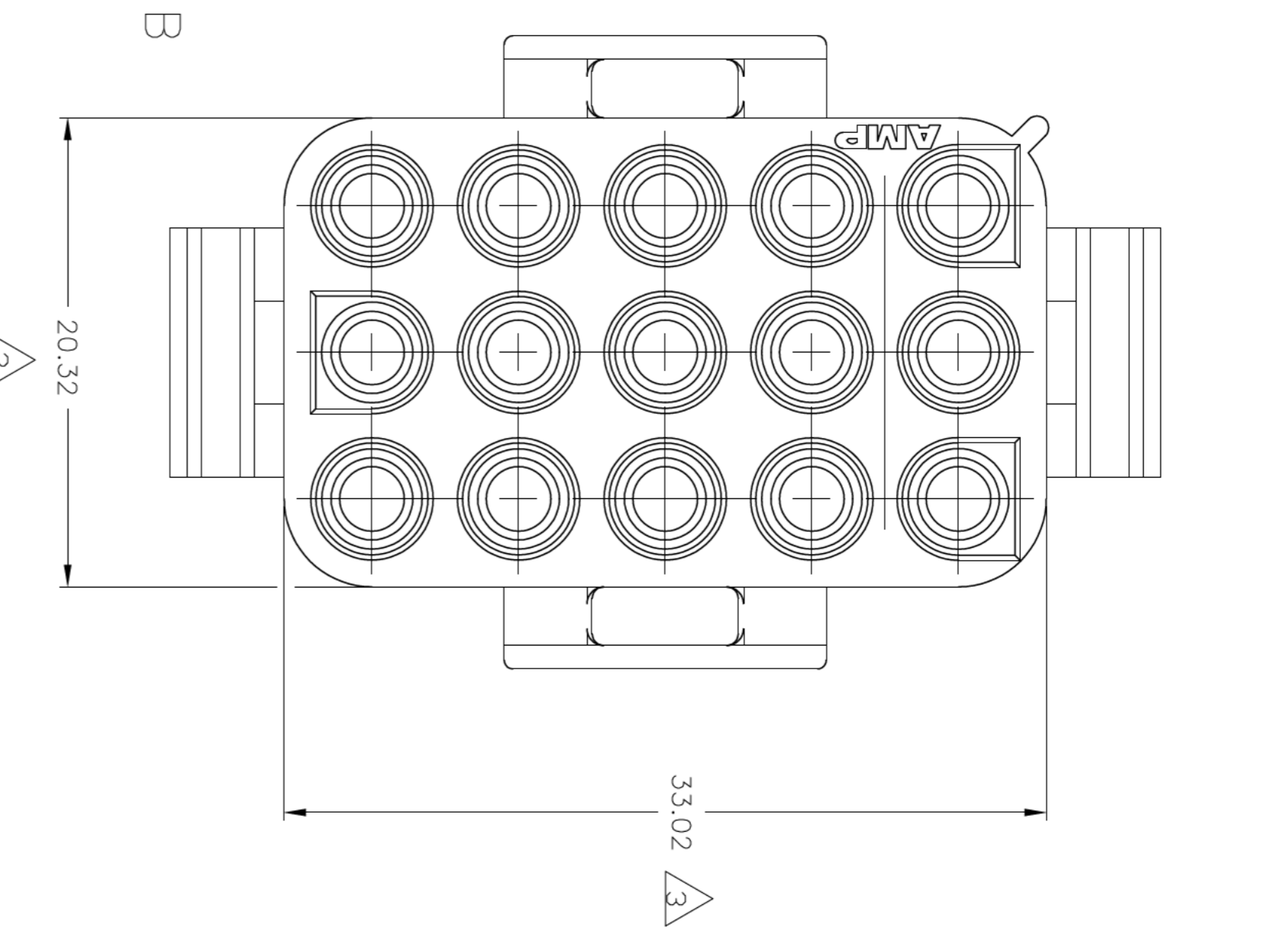
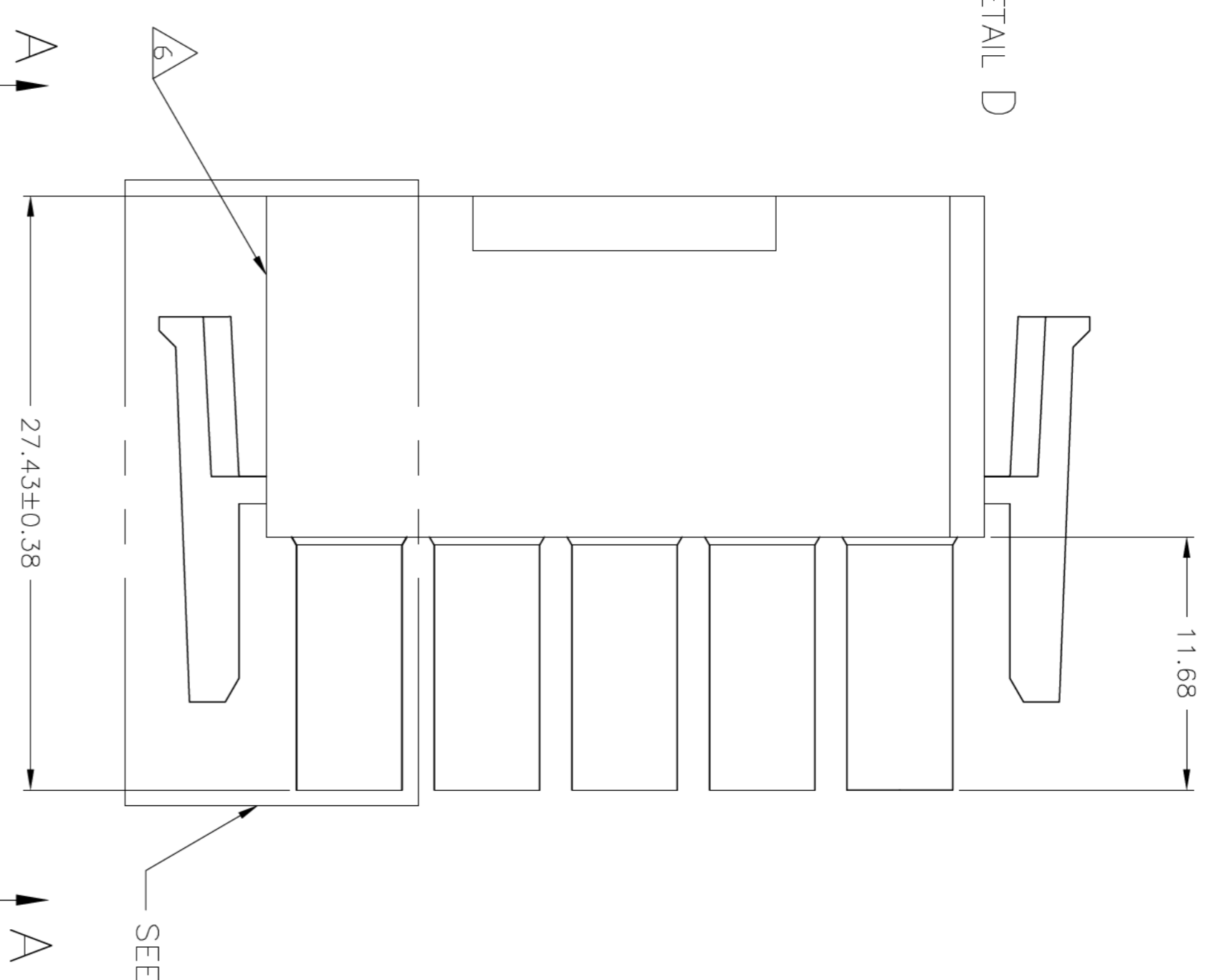
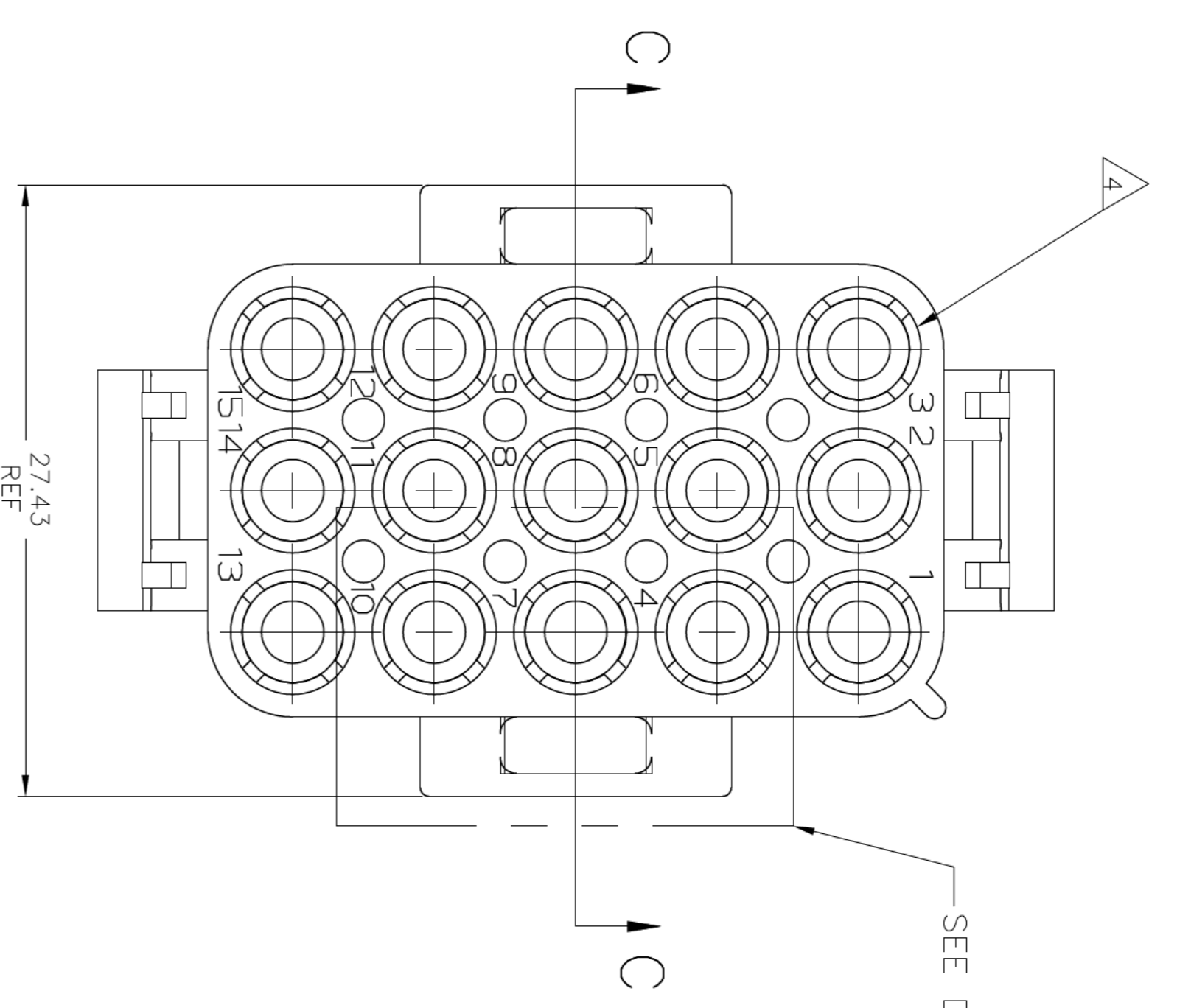
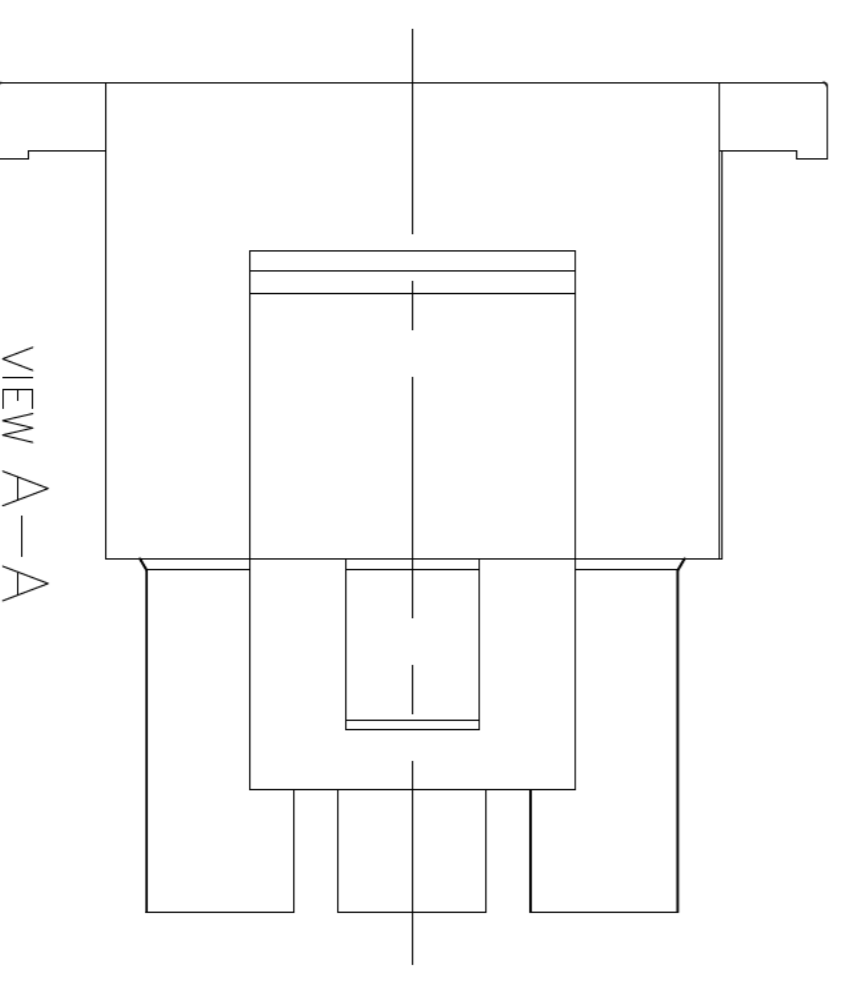
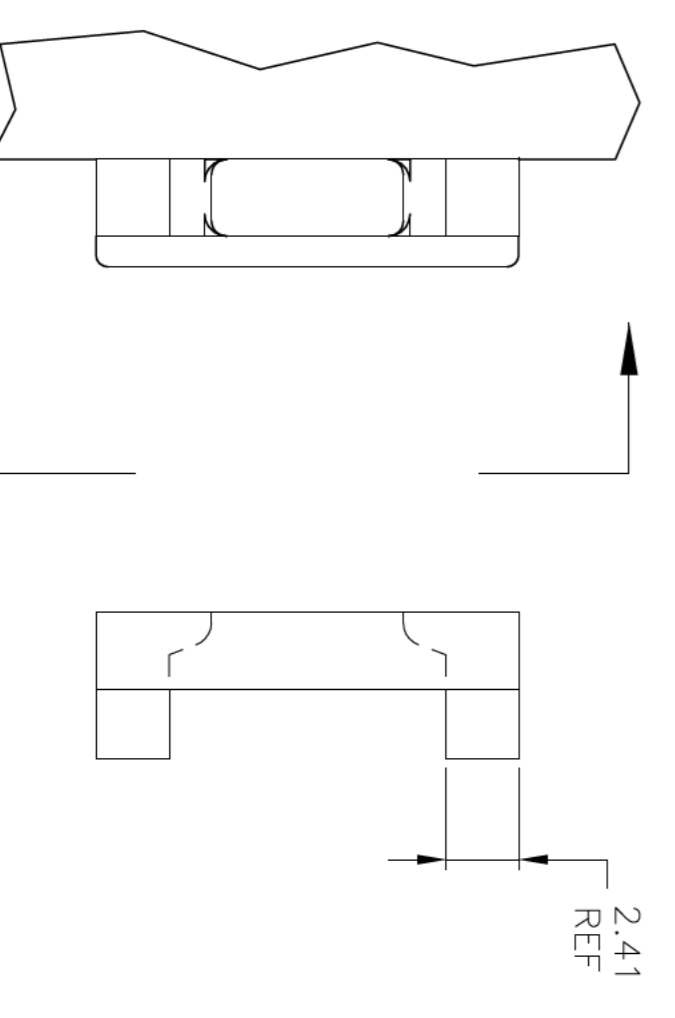
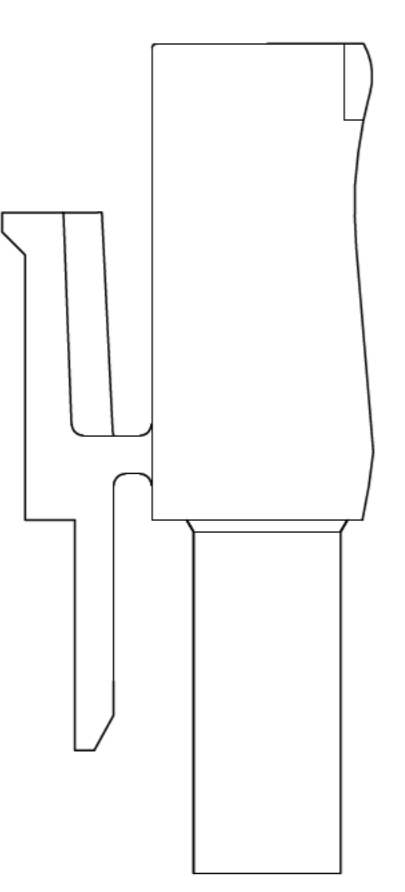
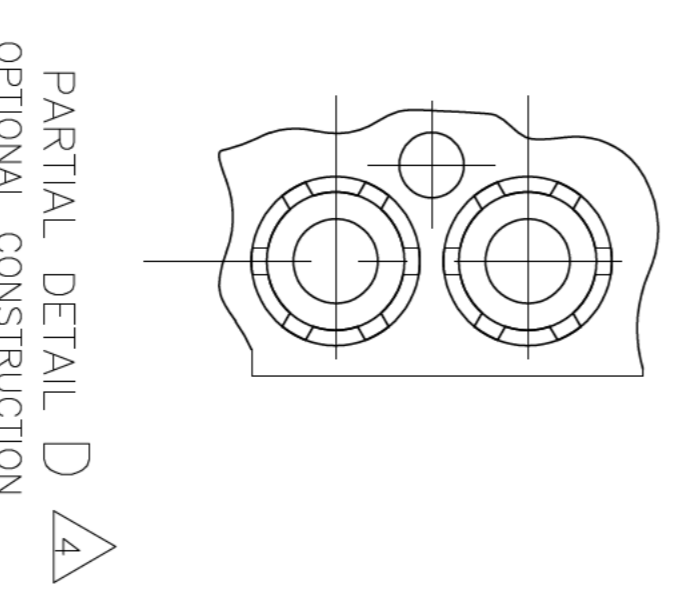
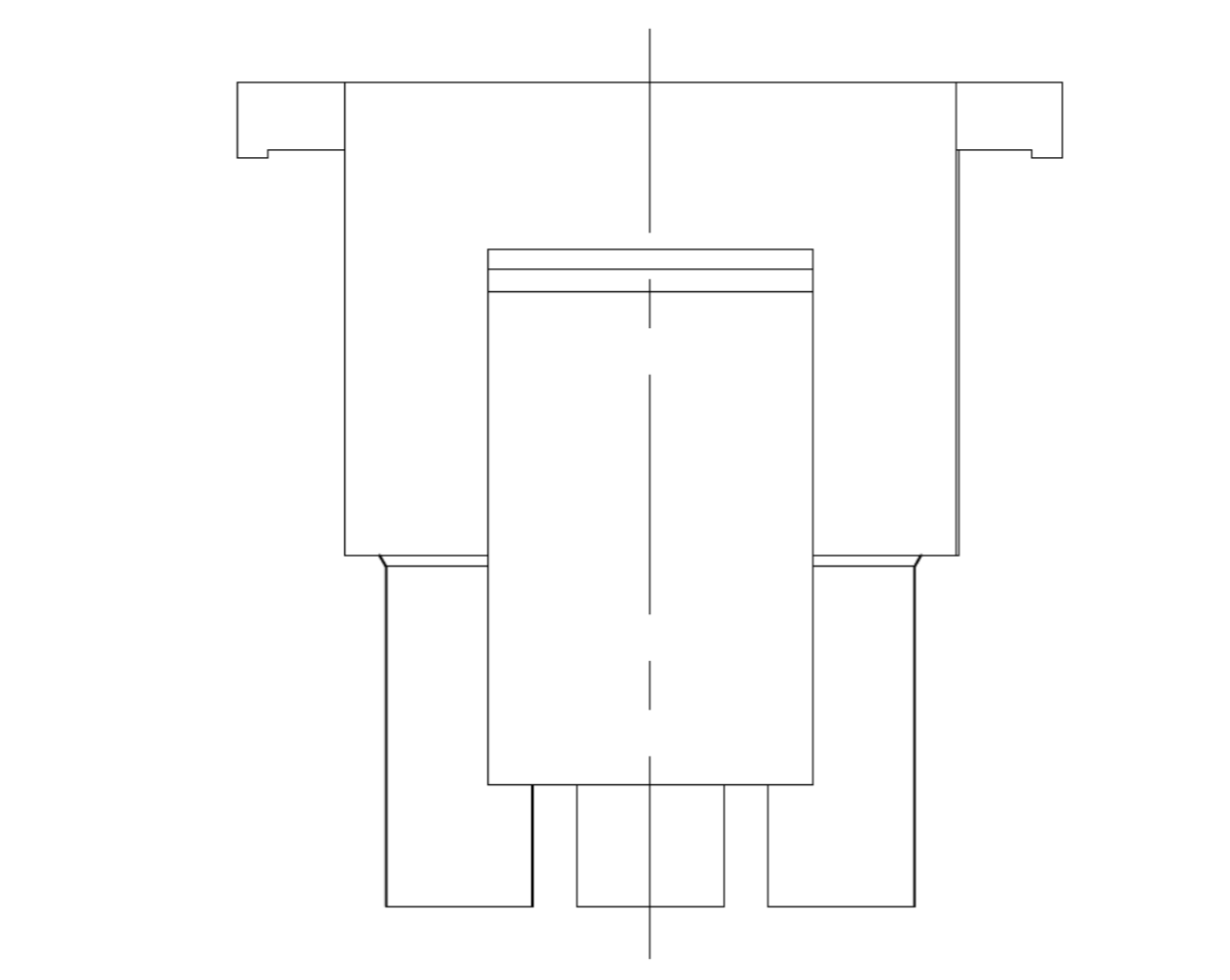
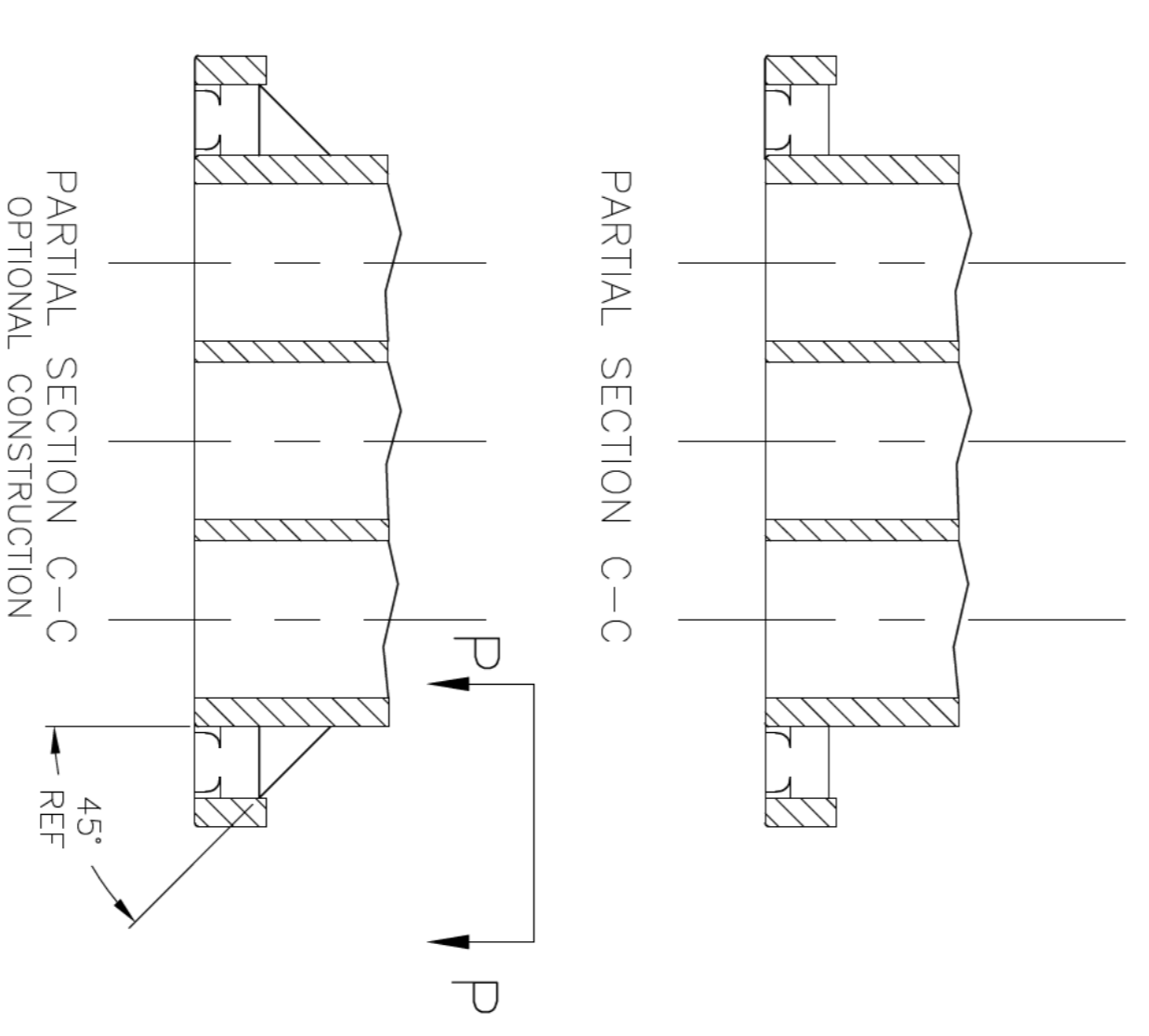
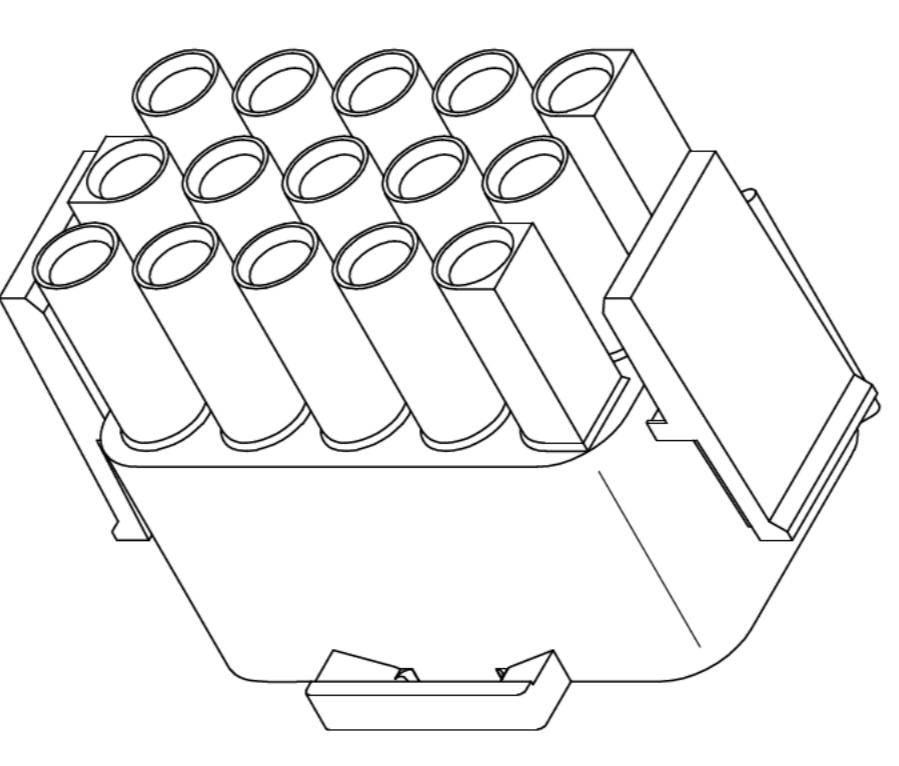
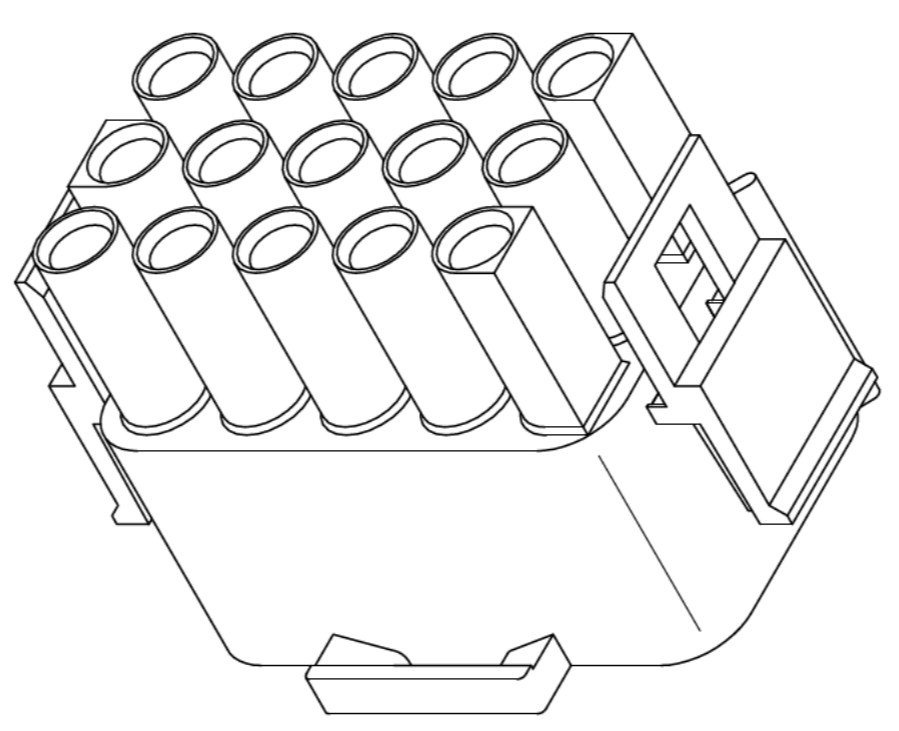


FIG 445
Project 70143056
Report 1030930
Contract 164196
LR 7189-549



1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ CAP OR HEADER.
2. SMALL NICKS ARE PERMITTED ON THE CIRCUIT TOWERS WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 4.4 NEWTONS [1.0 LBS]. NO INDIVIDUAL NICKED TOWER SHALL INCREASE THIS FORCE BY OVER 2.2 NEWTONS [.5 LBS].
3. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
4. FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, OR SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL.
5. NOT MANUFACTURED IN U.S.
6. UNDERWRITERS RECOGNIZED COMPONENT LOGO AND CSA CERTIFICATION LOGO TO BE LOCATED ONCE ON EACH SIDE OF HOUSING.



OPTIONAL CONSTRUCTIONS

BLACK	1-350736-9
GRAY	1-350736-8
BLUE	1-350736-6
GREEN	1-350736-5
YELLOW	1-350736-4
ORANGE	1-350736-3
RED	1-350736-2
BROWN	1-350736-1
NATURAL	350736-4
COLOR	350736-1
	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.

STP TE Connectivity

15 CIRCUIT, UNIVERSAL MATE-N-LOK™

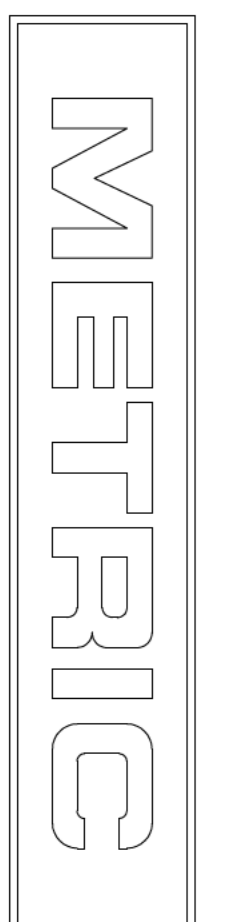
PLUG, CUSTOMER DRAWING

DATE CODE DRAWING NO. A1 00779

SCALE 4:1

SHEET 1 OF 1

REV. W



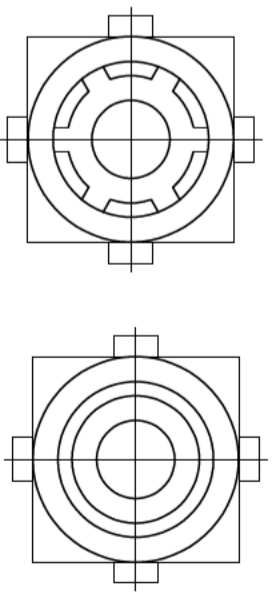
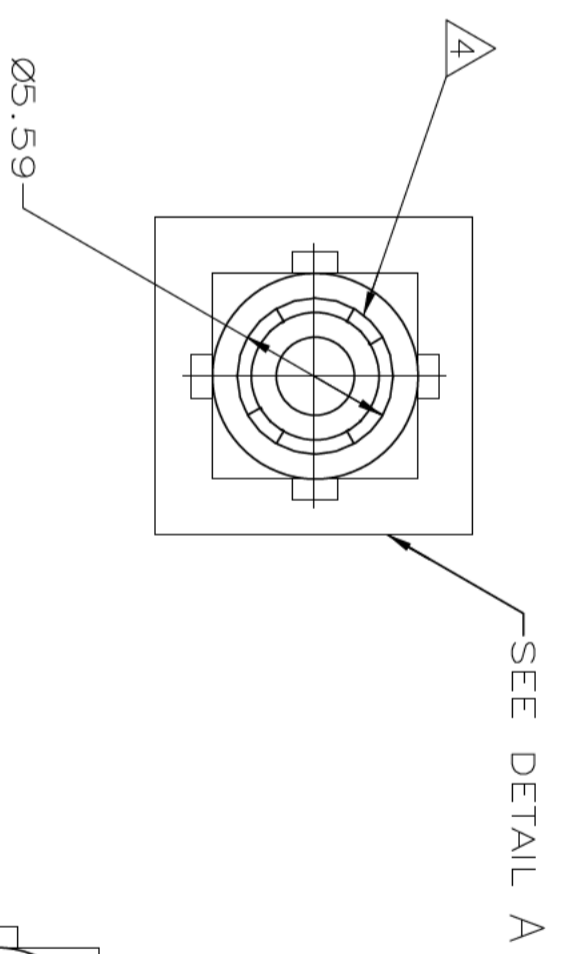
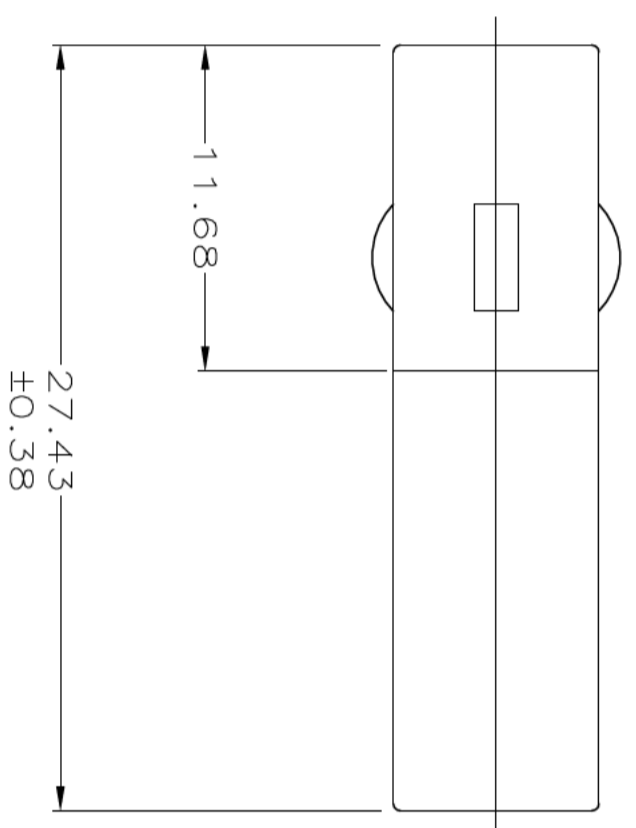
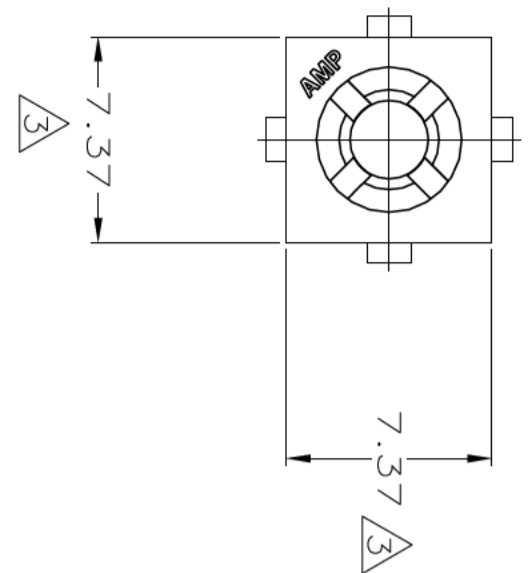
LOC	DIST	REV	DESCRIPTION	DATE	BY
CM	53	P			
		R1	REVISED PER ECO-11-005027	11MAR11	RK

1. MATES WITH APPROPRIATE UNIVERSAL MATE-N-LOK™ CAP.

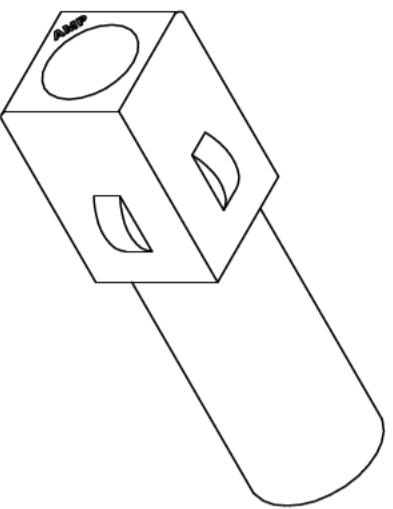
2. SMALL NICKS ARE PERMITTED ON THE CIRCUIT TOWER WHICH COULD INCREASE THE INITIAL HOUSING MATING FORCE BY UP TO 2.2 NEWTONS [.5 LBS].

3. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.

4. FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL.



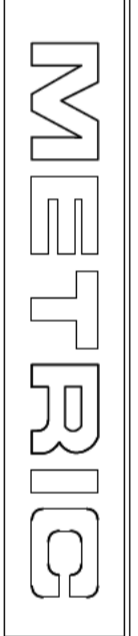
DETAIL A
 OPTIONAL CONSTRUCTION



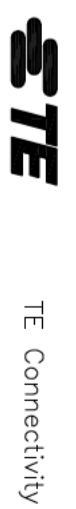
3-DIMENSIONAL MODEL

27.43	1.080
11.68	.460
7.37	.290
5.59	.220
0.38	.015
0.13	.005
MM	IN

CONVERSION TABLE



THIS DRAWING IS A CONTROLLED DOCUMENT.		DWG 3-9-92		DATE	
DIMENSIONS: mm[INCHES]		CHK R. SWING		3-9-92	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		DWN K. WHITAKER		3-9-92	
0 PLG	±	AP'D D. SELF		3-10-92	
1 PLG	±	PRODUCT SPEC		NAME	
2 PLG	± 0.13	APPLICATION SPEC		SIZE	
4 PLG	±	WEIGHT		A2	
ANGLES	± 0° 30'	CUSTOMER DRAWING		00779	
FINISH	-	SCALE		4:1	
MATERIAL	NYLONUL 94V-0	SHEET		1 of 1	

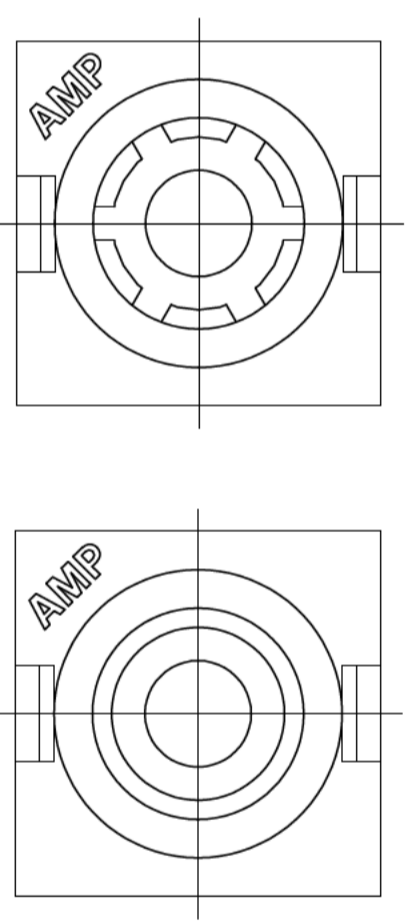
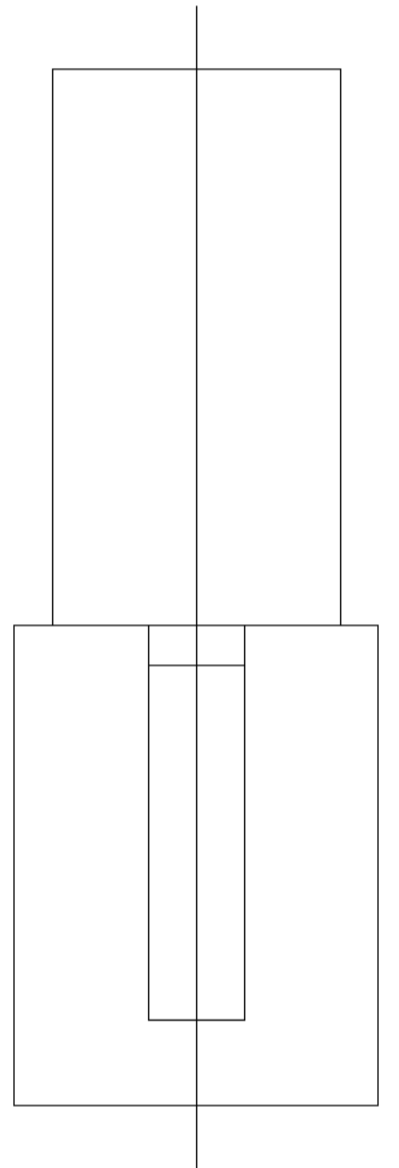
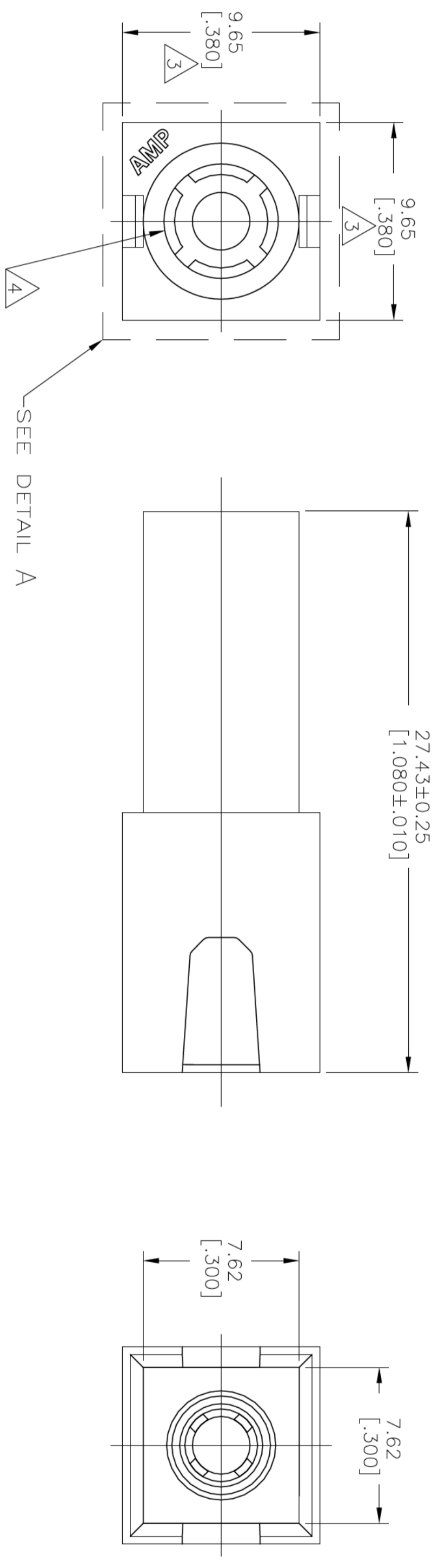


350865-1
 PART NO

PLUG,
 TE CONNECTIVITY,
 SINGLE CIRCUIT,
 UNIVERSAL MATE-N-LOK™

REV	DATE	DESCRIPTION	BY	CHK	DIST	LOC
P2	11MAR11	REVISED PER ECO-11-004917	RK	CM	53	CM

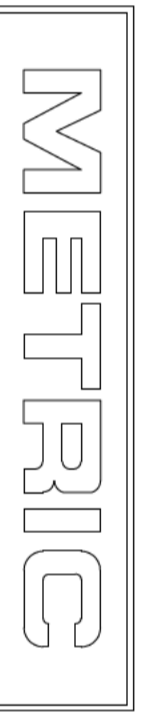
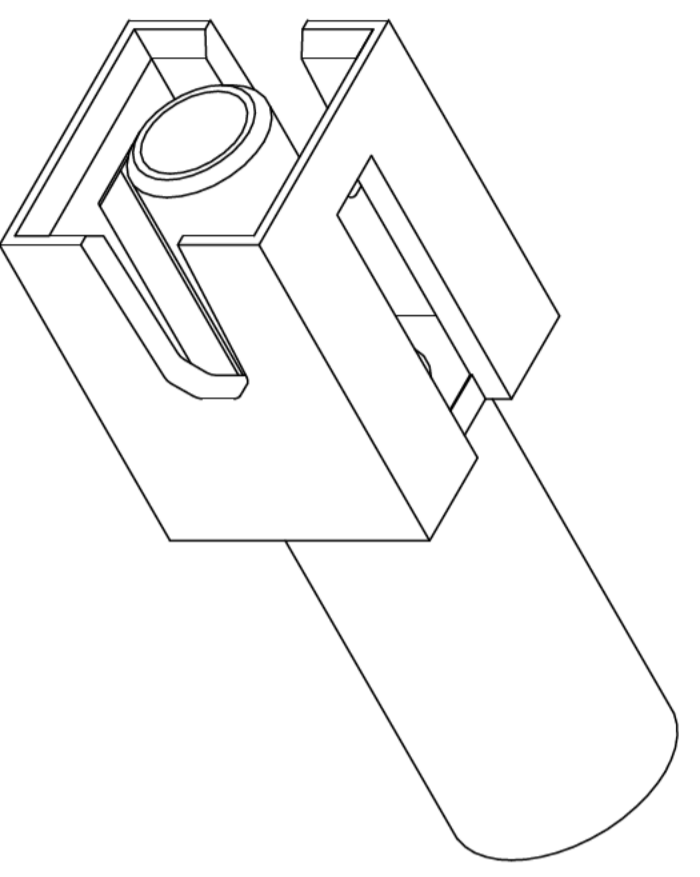
FIG 448
 Project 70143056
 Report 1030930
 Contract 164196
 LR 7189-549



DETAIL A
 OPTIONAL CONSTRUCTIONS

- 1 MATES WITH HOUSING 350865.
- 2 DIMENSIONS IN BRACKETS ARE IN INCHES.
- 3 DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.
- 4 FOUR RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION. NO RIBS OR SIX RIBS EQUALLY SPACED, NO SPECIFIC ORIENTATION, OPTIONAL.

3-DIMENSIONAL MODEL
 NTS

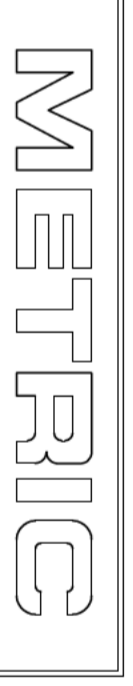
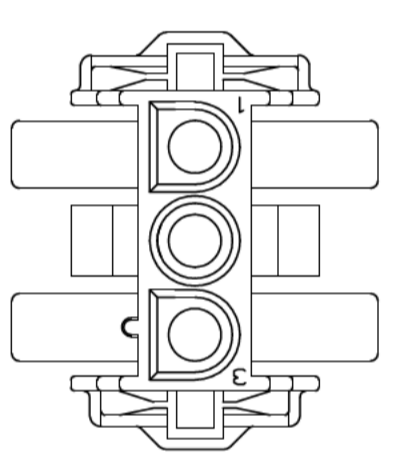
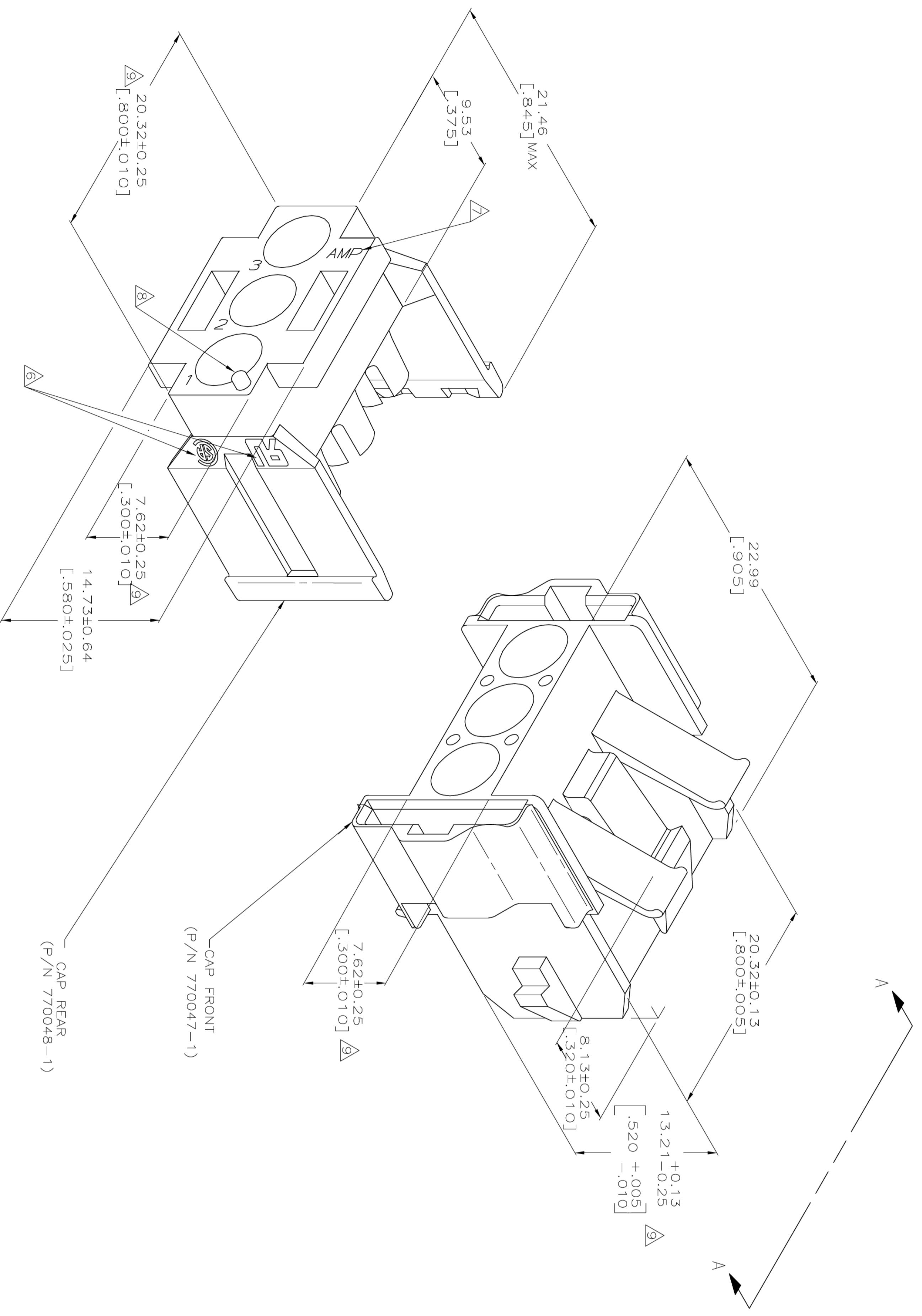


RED	350866-2
-	350866-1
COLOR	PART NO.

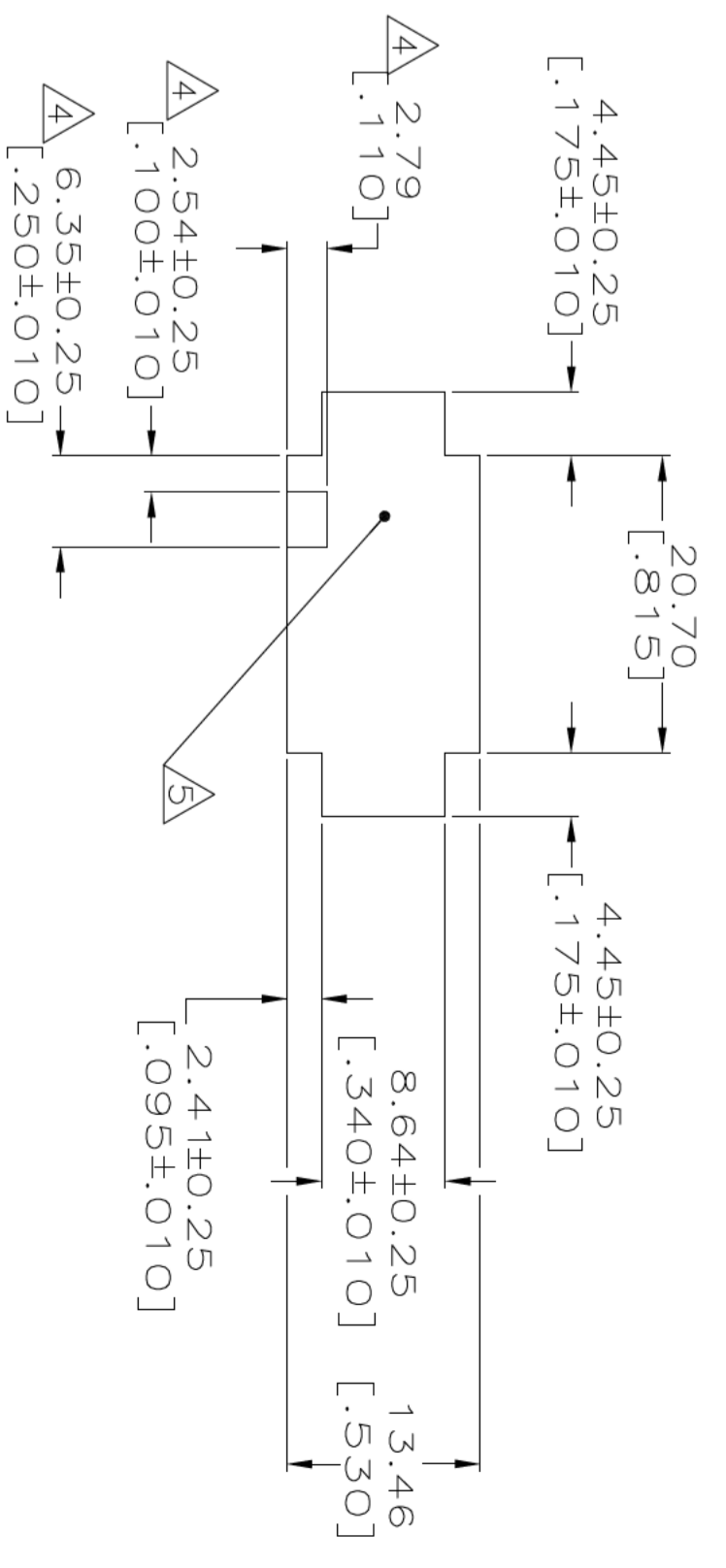
STE TE Connectivity

CAP, SINGLE CIRCUIT,
 UNIVERSAL MATE-N-LOK™

THIS DRAWING IS A CONTROLLED DOCUMENT.	
DIMENSIONS: mm [INCHES]	TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLG ±	1 PLG ±
2 PLG ± 0.13 [0.05]	3 PLG ±
4 PLG ±	ANGLES ±
MATERIAL NYLON, UL 94V-0	FINISH
DMN K. WHITAKER 8-12-91	APVD D. SELF 8-12-91
CHK R. SWING 8-12-91	NAME
APPLICATION SPEC	SIZE A2
WEIGHT	Q&E CODE 00779
CUSTOMER DRAWING	DRAWING NO. C=350866
SCALE 5:1	SHEET 1 OF 1
REV P2	RESTRICTED TO



1. BULK PACKAGED, UNASSEMBLED.
2. RECOMMENDED PANEL THICKNESS 0.76-2.29 [.030-.090].
3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
4. OPTIONAL FOR KEYING HOUSING IN PANEL.
5. CIRCUIT NO. 1 LOCATION.
6. APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
7. AMP LOGO LOCATED THIS SURFACE.
8. CIRCUIT NUMBER ONE IDENTIFICATION BUTTON AND CIRCUIT IDENTIFICATION NUMBERS ARE EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CAVITIES.
9. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.



THIS DRAWING IS A CONTROLLED DOCUMENT.		DATE	1-22-92	REV	1-22-92
DRAWN BY: SALMON		DATE	1-22-92	CHK	1-22-92
DIMENSIONS: INCHES		TOLERANCES, UNLESS OTHERWISE SPECIFIED:			
0 R/C	± .005	1 R/C	± .010	2 R/C	± .015
3 R/C	± .015	4 R/C	± .020	5 R/C	± .030
FINISH: MNTL		PLATING: NICKEL/UL94V-0			
CUSTOMER DRAWING		SIZE	A1	DATE CODE	00779
SCALE		5:1	SHEET	1	OF 1

770025-1
PART NUMBER



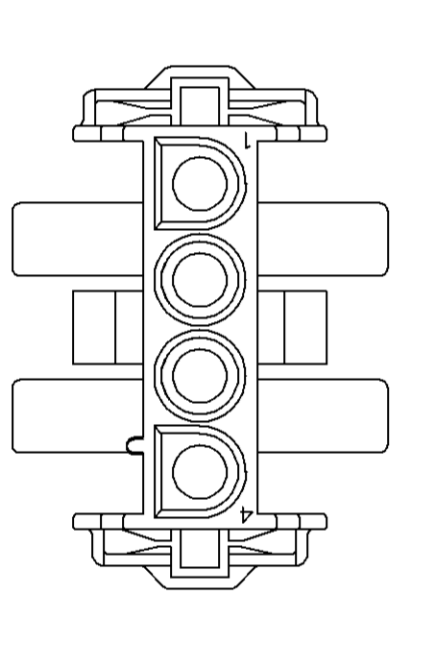
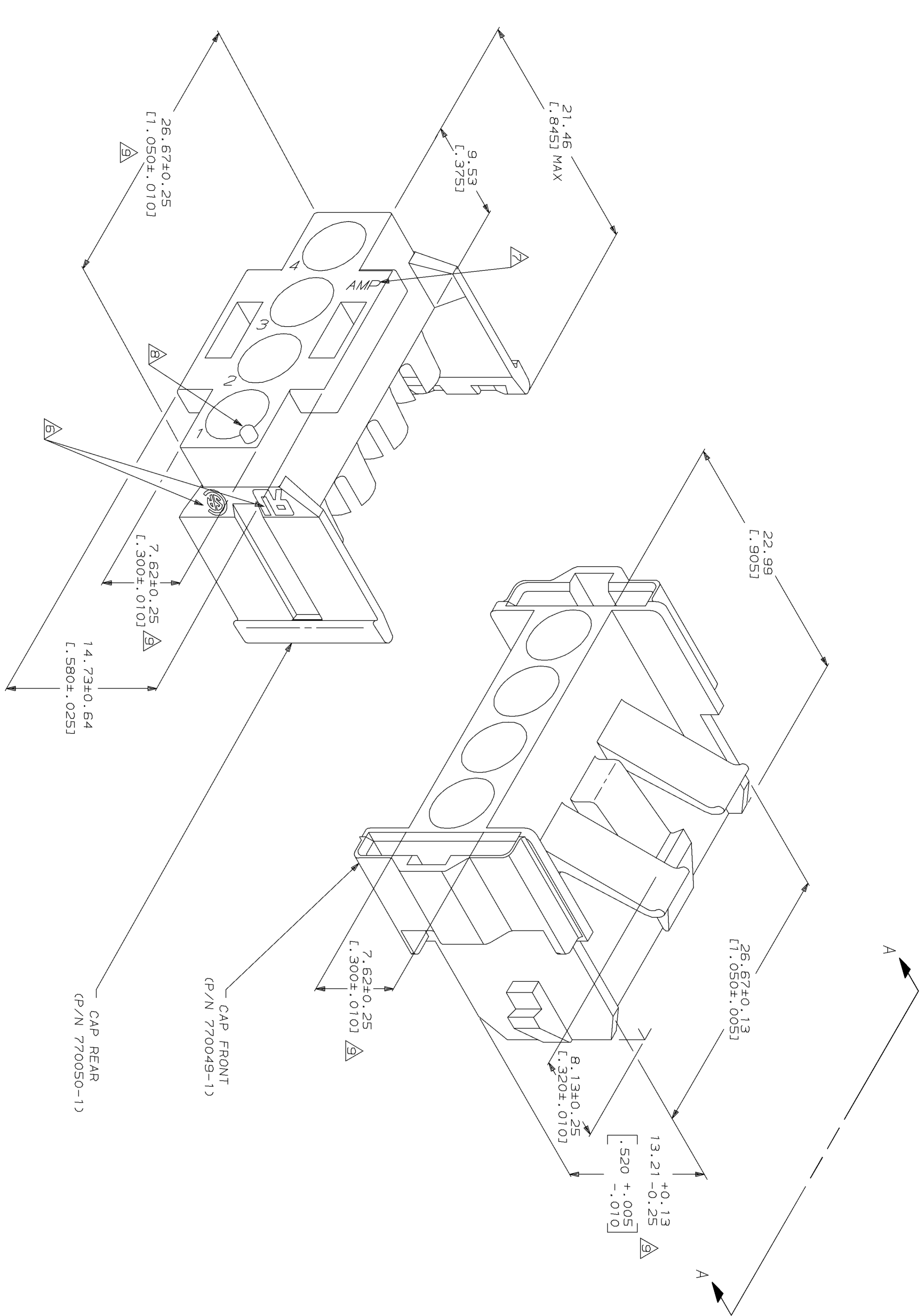
TE Connectivity

CAP HOUSING KIT,
3 CIRCUIT, IN-LINE,
UNIVERSAL, MALE-N-LOK

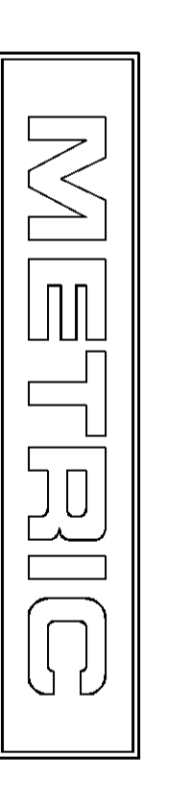
RESTRICTED TO
TM II

REV	DATE	DESCRIPTION	BY	CHK
1				

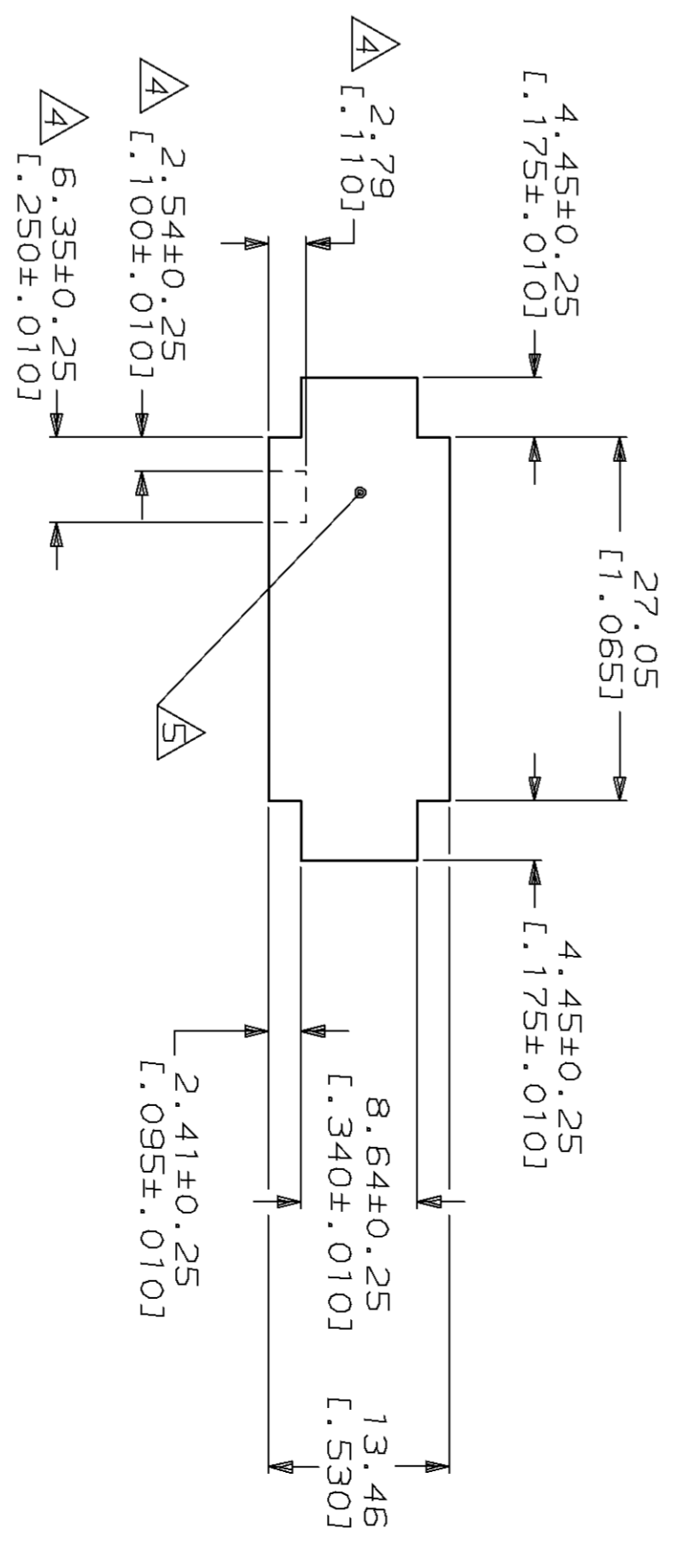
Loc	Dist	Zone	TRN	REV PER EC 0130-0034-96
CM	53	F		



VIEW A-A
SCALE 2:1



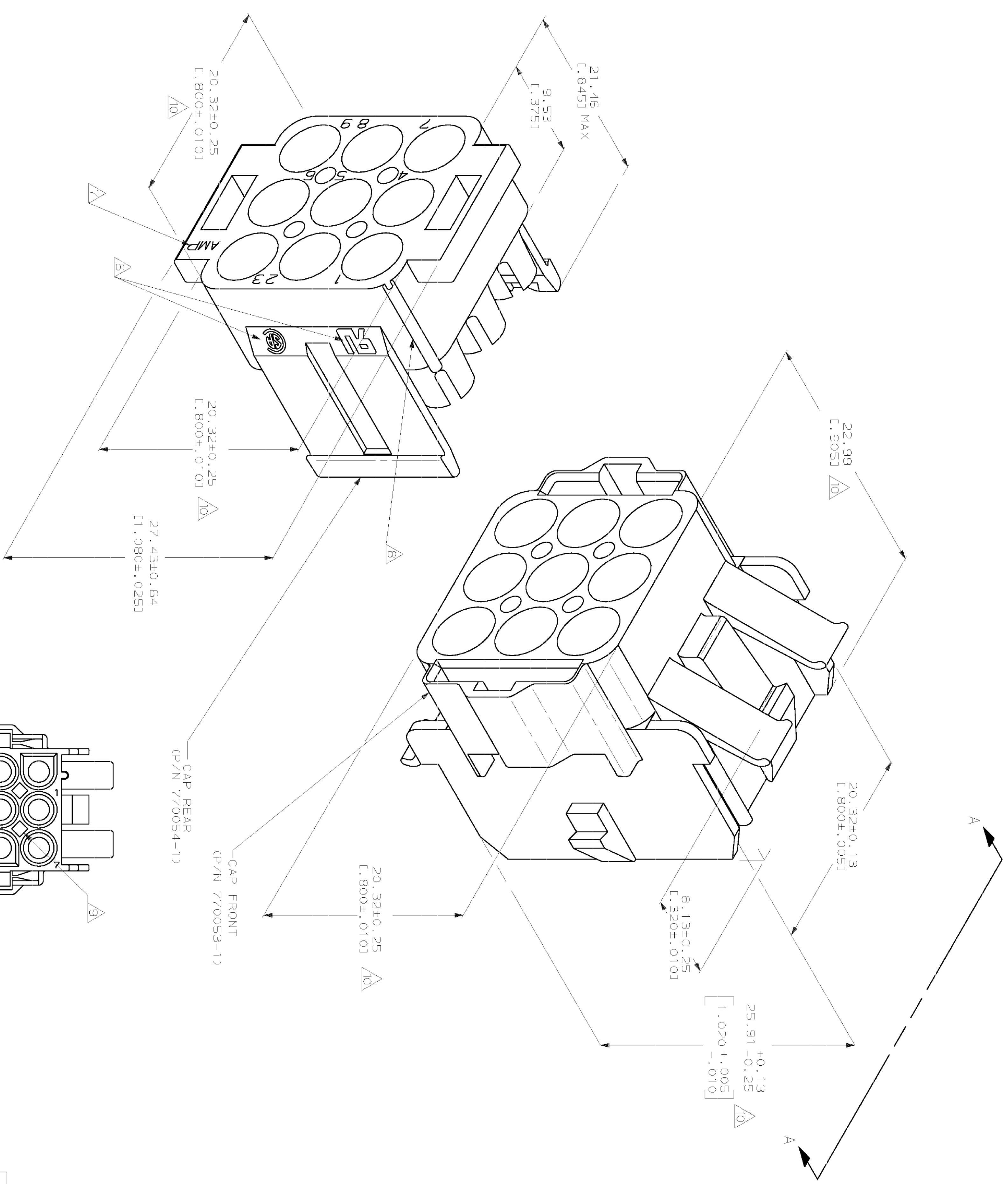
1. BULK PACKAGED, UNASSEMBLED.
2. RECOMMENDED PANEL THICKNESS 0.76-2.29 [L.030-.090].
3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
4. OPTIONAL FOR KEYING HOUSING IN PANEL.
5. CIRCUIT NO. 1 LOCATOR.
6. APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
7. AMP LOGO LOCATED THIS SURFACE.
8. CIRCUIT NUMBER ONE IDENTIFICATION BUTTON AND CIRCUIT IDENTIFICATION NUMBERS ARE EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CAVITIES.
9. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.



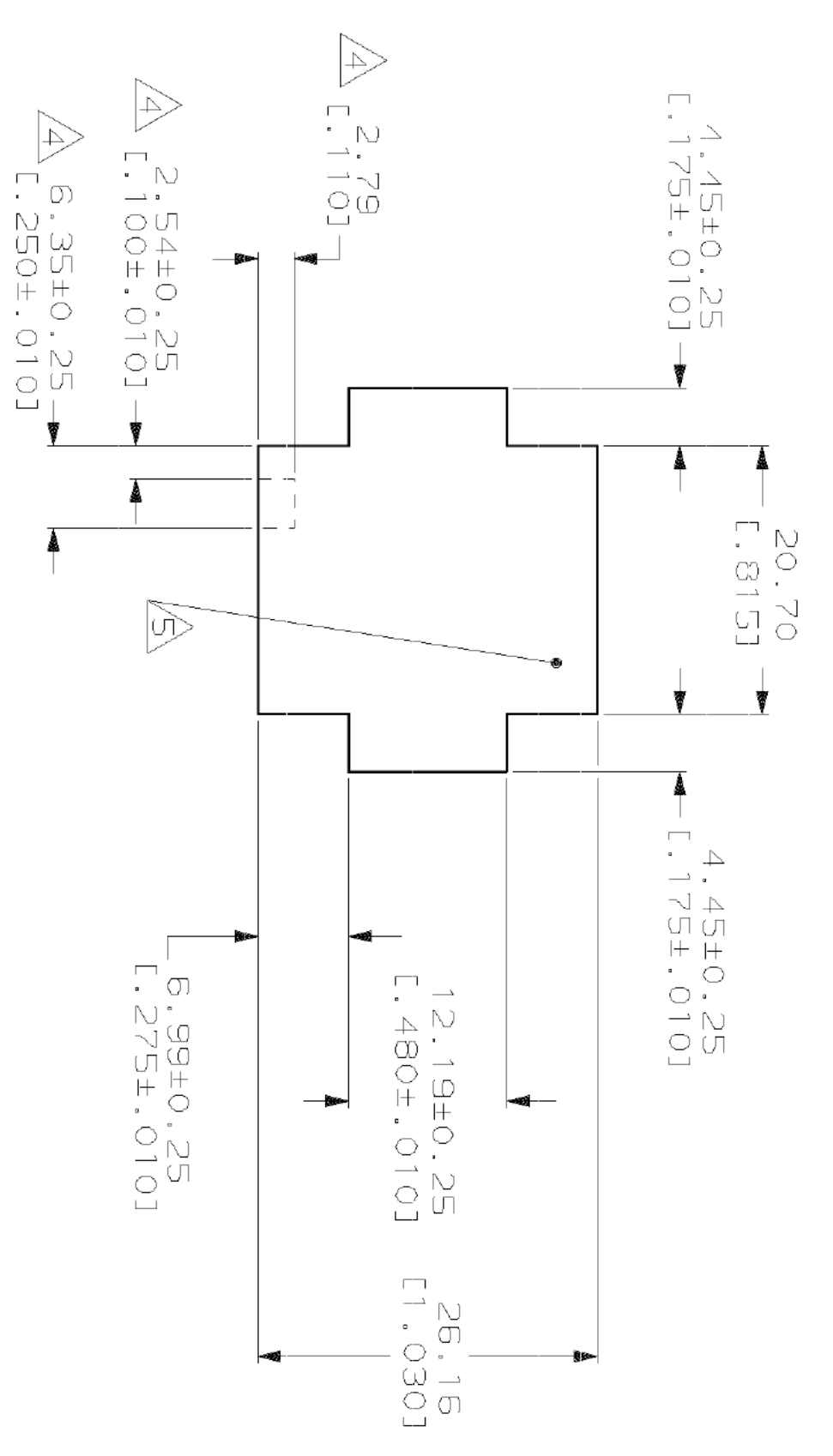
RECOMMENDED PANEL CUTOUT
 (HOUSING ENTRY SIDES)
 SCALE 2:1

DO NOT SCALE PRINT. UNLESS SPECIFIED DIMENSIONS IN INCHES DIMENSIONS IN MILLIMETERS	DR 1-22-92 K. SALMON	PART NO
1 UNLESS OTHERWISE NOTED	CHK 1-22-92 R. SWING	770026-1
2 PLC DEC ± 0.13 [L.005]	APPD 1-22-92 M. TRULL	PART NUMBER
3 PLC DEC ± 0.13 [L.005]	APPD 1-22-92 M. TRULL	
ANGLES #	PRODUCT SPEC	
MATERIAL	NYLON, UL94V-0,	
FINISH	APPLICATION SPEC	SIZE FSCH NO 00779 DRAWING NO 770026
	WEIGHT	SCALE 5:1 SHEET 1 OF 1

CUSTOMER DRAWING

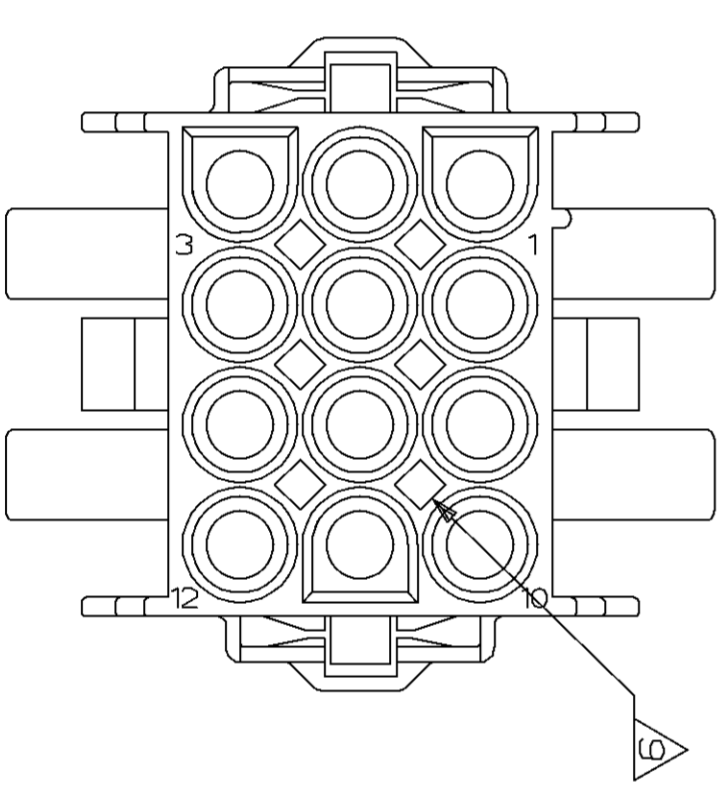
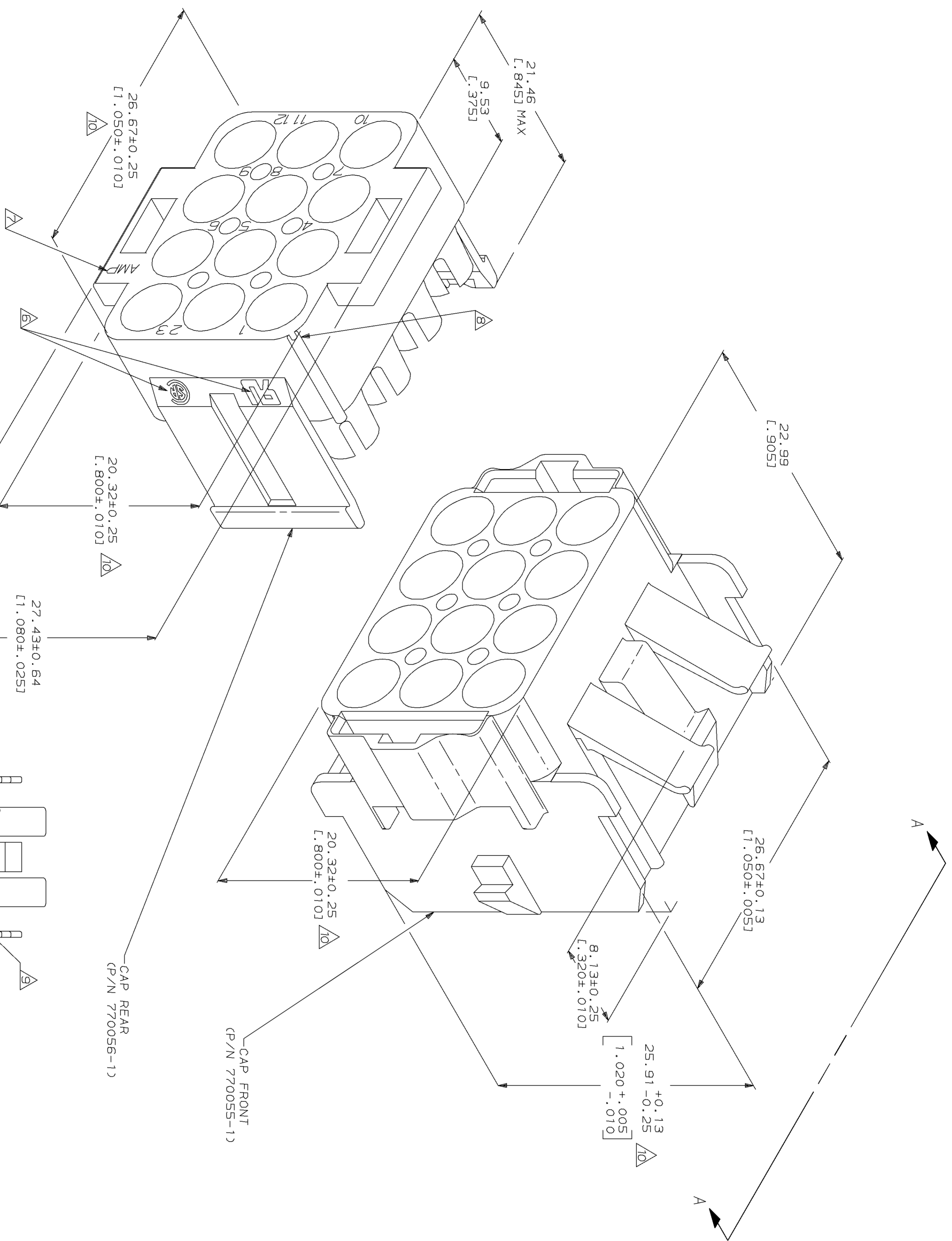


1. BULK PACKAGED, UNASSEMBLED.
2. RECOMMENDED PANEL THICKNESS 0.76-2.29 [1.030-.090].
3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.
4. OPTIONAL FOR KEYING HOUSING IN PANEL.
5. CIRCUIT NO. 1 LOCATOR.
6. APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
7. AMP LOGO LOCATED THIS SURFACE.
8. CIRCUIT NUMBER ONE IDENTIFICATION RIB AND CIRCUIT IDENTIFICATION NUMBERS ARE EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CAVITIES.
9. OPTIONAL CONSTRUCTION PROVIDES ROUND MATERIAL REDUCTION CORING HOLES.
10. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.

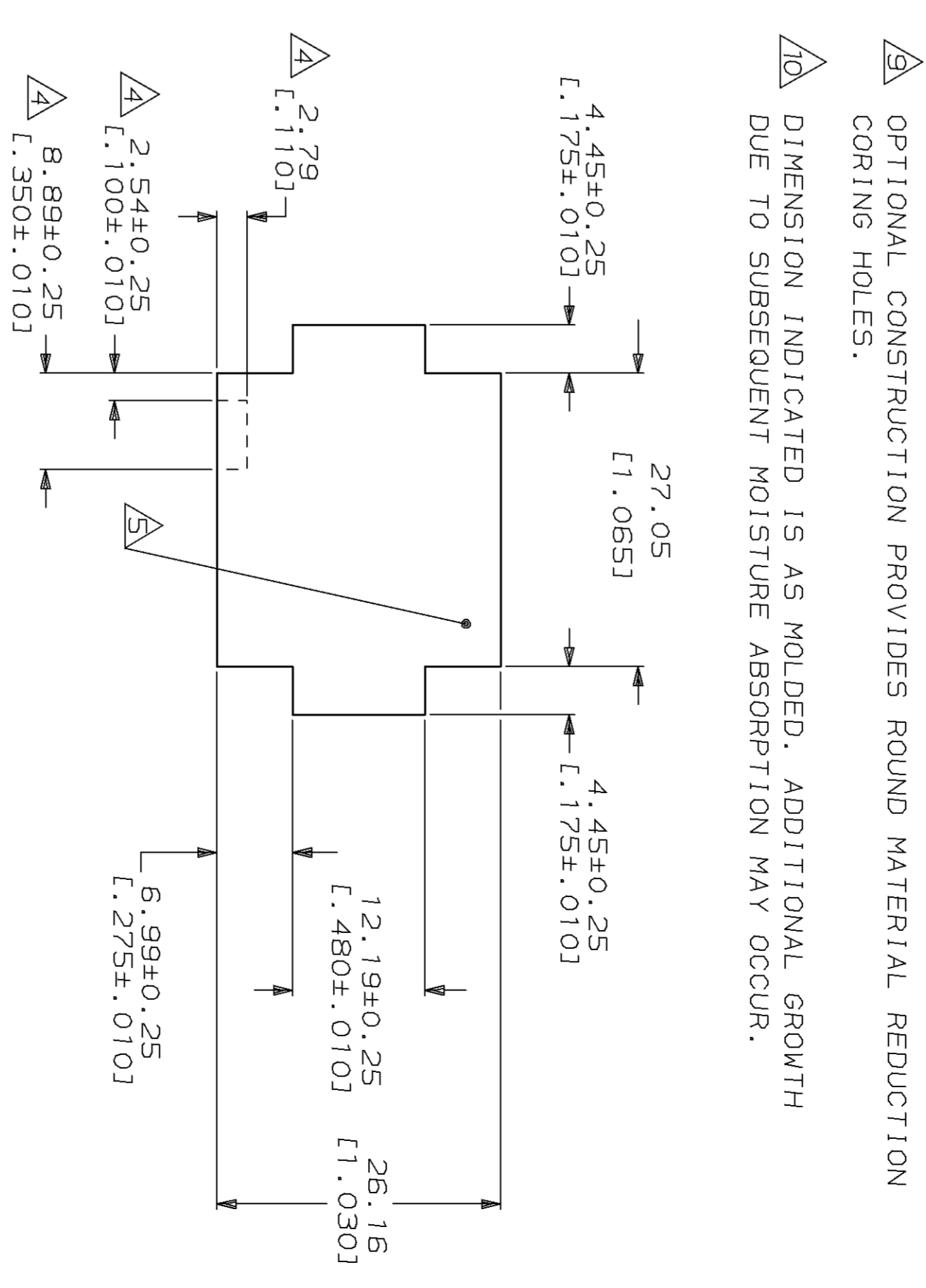
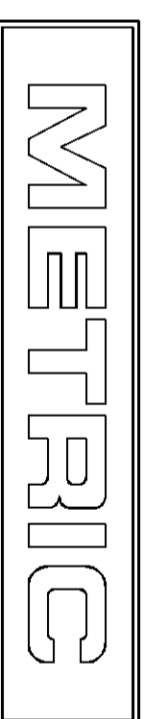


DO NOT SCALE PRINT. UNLESS SPECIFIED DIMENSIONS IN INCHES ARE TO BE USED.		DR 1-22-92 K. SALMON	
3 PLS DEC ± 0.13 [1.005] ANGLES		CHK 1-22-92 R. SMING	
MATERIAL NYLON, UL 94V-0,		APPD 1-22-92 M. TRULL	
PRODUCT SPEC		M. TRULL	
FINISH		APPD 1-22-92 M. TRULL	
APPLICATION SPEC		M. TRULL	
WEIGHT		PRODUCT SPEC	
SIZE		NAME	
D 00779		CAP HOUSING KIT, 9 CIRCUIT, UNIVERSAL MATE-N-LOK™ II	
SCALE 5:1		DRAWING NO 770028	
SHEET 1 OF 1		REV J1	

PART NO	770028-1
PART NUMBER	



VIEW A-A
SCALE 2:1



RECOMMENDED PANEL CUTOUT
(HOUSING ENTRY SIDE)
SCALE 2:1



1. BULK PACKAGED, UNASSEMBLED.

2. RECOMMENDED PANEL THICKNESS 0.76-2.29 [L.030-.090].

3. PANEL MUST BE PUNCHED SO THAT THE HOUSING ENTERS THE PANEL IN THE SAME DIRECTION AS THE PUNCH.

4. OPTIONAL FOR KEYING HOUSING IN PANEL.

5. CIRCUIT NO. 1 LOCATOR.

6. APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.

7. AMP LOGO LOCATED THIS SURFACE.

8. CIRCUIT NUMBER ONE IDENTIFICATION RIB AND CIRCUIT IDENTIFICATION NUMBERS ARE EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CAVITIES.

9. OPTIONAL CONSTRUCTION PROVIDES ROUND MATERIAL REDUCTION CORING HOLES.

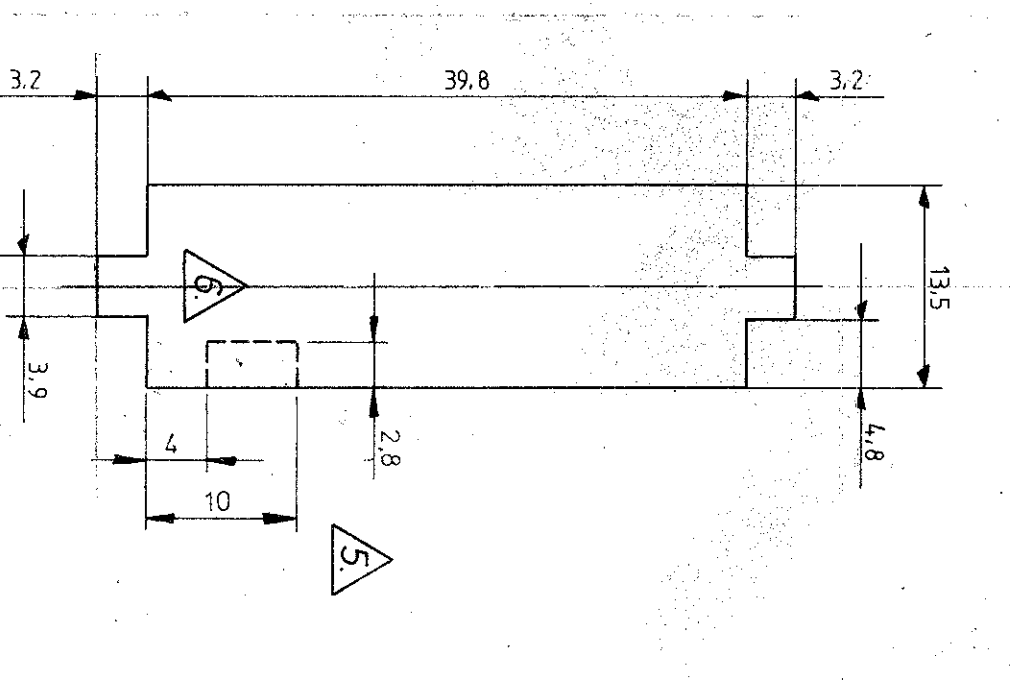
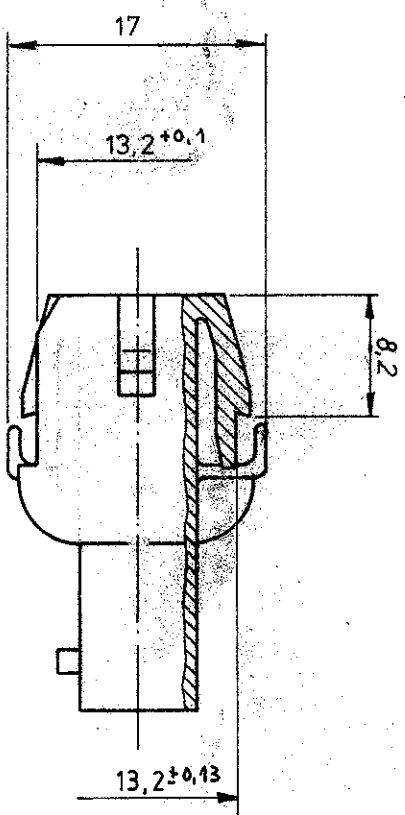
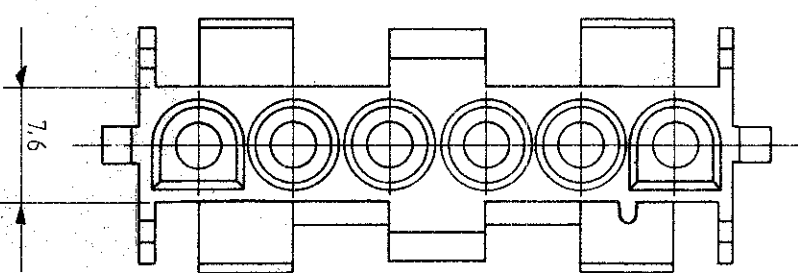
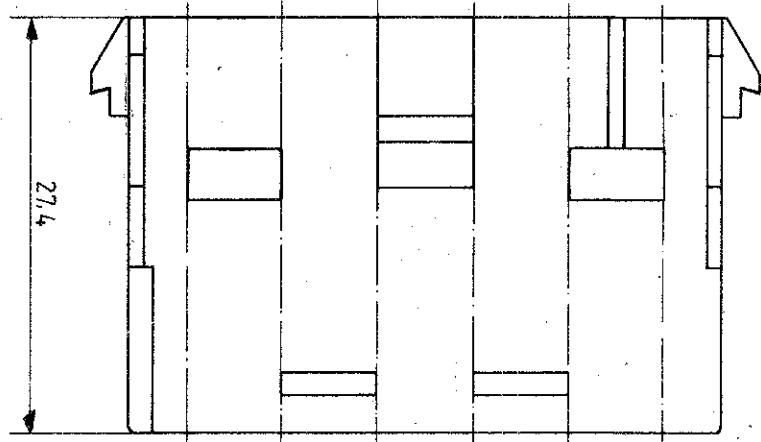
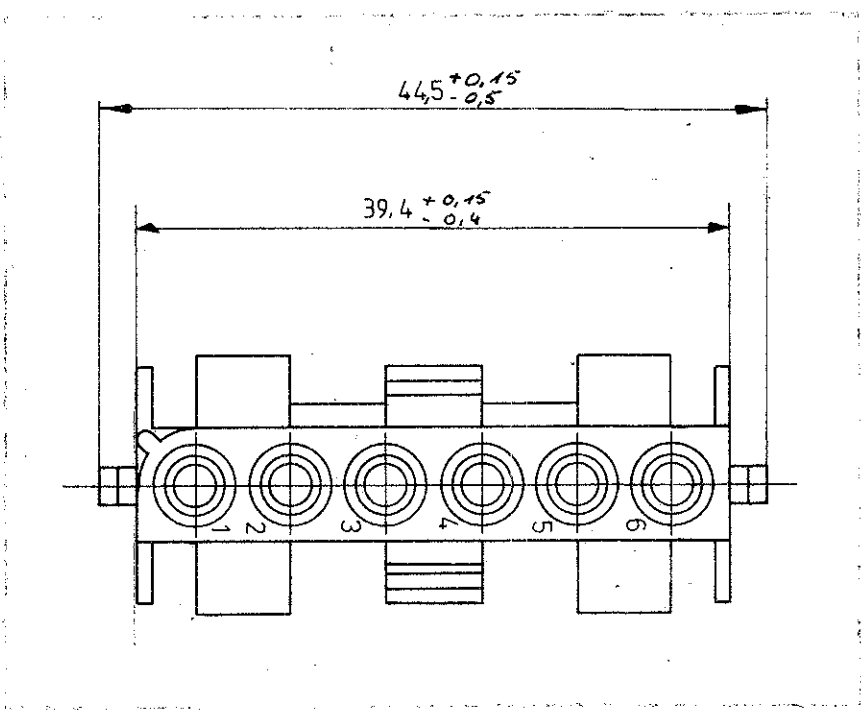
10. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.

DO NOT SCALE PRINT. UNLESS SPECIFIED DIMENSIONS IN INCHES DIMENSIONS IN MILLIMETERS		DR 1-22-92 K. SALTOUN	
2 PLC DEC ± 0.13 [L.005]		CHK 1-22-92 R. SWING	
3 PLC DEC ± 0.13 [L.005]		APPD 1-22-92 M. TRULL	
MATERIAL NYLON, UL94V-0,		APPD 1-22-92 M. TRULL	
PRODUCT SPEC		APPD 1-22-92 M. TRULL	
FINISH		NAME CAP HOUSING KIT, 12 CIRCUIT, UNIVERSAL MATE-N-LOK™ II	
APPLICATION SPEC		PART NO 770029-1	
WEIGHT		PART NUMBER 770029-1	
SIZE FSCN NO 00779		DRAWING NO 770029	
SCALE S:1		SHEET 1 OF 1	

CUSTOMER DRAWING

Zeichnung geschützt durch
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Index	Änderung	Tag	Nomenklatur
01	Zchnng. neu erstellt, ergänzt u. berichtigt	20.05.87	Tudm
02	Tabelle ergänzt	12.01.82	Tudm
03	Material fñ.-1 spezifiziert	31.01.85	D&A
04	Einbaumaß ergänzt	20.02.85	Kristians
05	Material für -1 geändert	15.06.86	Tudm
06	NEUES MATERIAL	26.JAN.88	R. BLU.
G1	44.5±0.13 ab. 44.45-45.39/40/41 d. 40/45-01/18 01.00		Göpel, C



Montageausschnitt (Bestückungsseite)

NEUES MATERIAL (PHOSPHOR UND HALOGEN FREI)

Position von Kammer 1 bei verschlüsseltem Einsetzen der Gehäuse

Für verschlüsseltes Einsetzen der Gehäuse

Gehäuse muß in Stanzrichtung eingeführt werden

Empfohlene Blechstärke 0,75 - 2,3 mm

Passend zu UMNL-Steckergehäuse 926 300, 640 581, 640 585

Geeignet für UMNL Stift- und Buchsenkontakte

Änderungen, die dem technischen Fortschritt dienen, behalten wir uns vor.

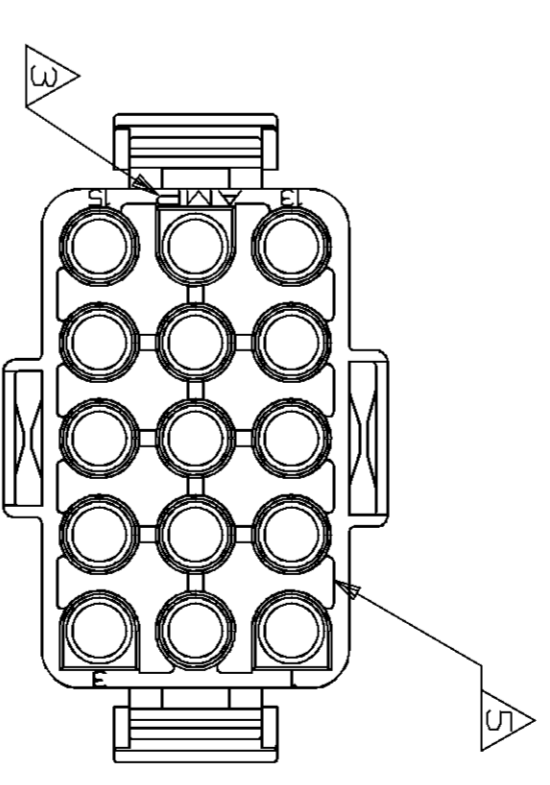
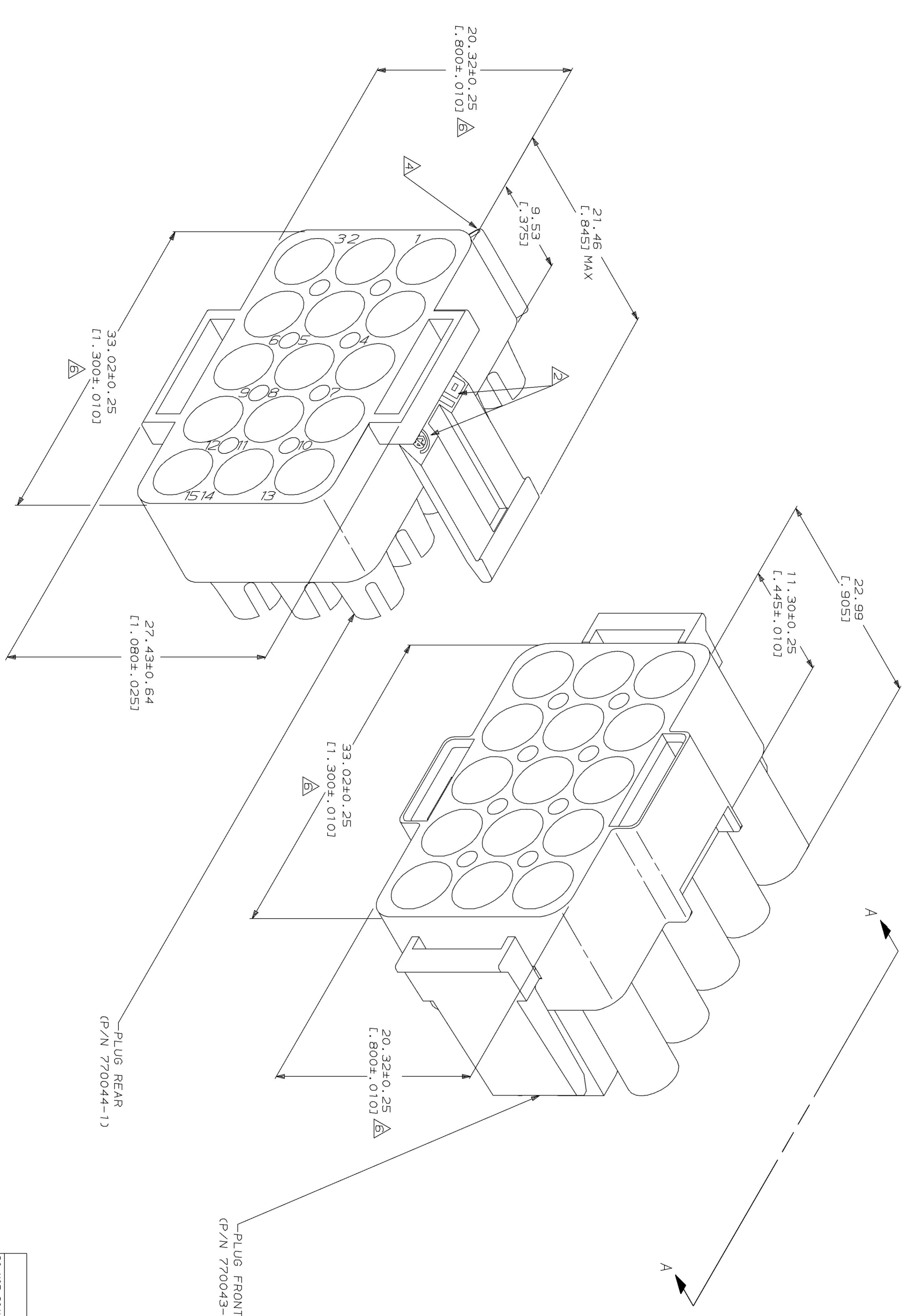
926 307 - 4	PA6 6UL94-VO weiß	Benennung	AMP DEUTSCHLAND GmbH Langen b Ffm	AMP	AMP DEUTSCHLAND GmbH	Format	Zeichnungs-Nr.	926 307	Blatt-Nr.				
926 307 - 3	PA6 6UL94-VO NATURAL												
926 307 - 2	PA6 6UL94-VO schwarz	926 307 - 1	Zytel EFE 8030 natur UL 94 V-2	Werkstoff	Oberfläche	Farbe	Nicht tolerierte Maße	± 0.13 mm	Format	Zeichnungs-Nr.	926 307	Blatt-Nr.	G1
Bestell-Nr.	Werkstoff	Oberfläche	Farbe	Maßstab	2-1								
Gez.	Capr.	Capr.	Capr.	Gez.	20.05.84	1.6.81							

Universal MATE-N-LOK
 6-pol. Aufnahmegehäuse

K

Loc	Dist	2	1
CM	S3		
P F	ZONE	123	
REV PER EC	0130-0034-96		
DATE	8-30-85		

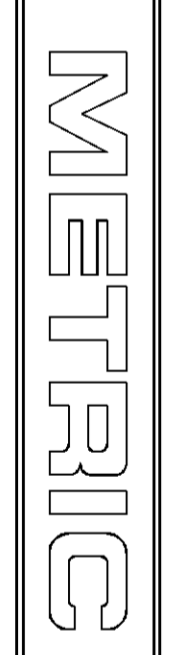
1. BULK PACKAGED, UNASSEMBLED.
2. APPROVAL AGENCY LOGO LOCATED APPROXIMATELY AS SHOWN.
3. AMP LOGO LOCATED THIS SURFACE.
4. CIRCUIT NUMBER ONE IDENTIFICATION RIB AND CIRCUIT IDENTIFICATION NUMBERS ARE EACH LOCATED ADJACENT TO THE APPROPRIATE CIRCUIT CAVITIES.
5. NEW MOLD CONSTRUCTION PROVIDES MATERIAL REDUCTION CORING AT BASE OF SILDS WITH NO CORING AS OPTIONAL.
6. DIMENSION INDICATED IS AS MOLDED. ADDITIONAL GROWTH DUE TO SUBSEQUENT MOISTURE ABSORPTION MAY OCCUR.



VIEW A-A
SCALE 2:1

PLUG REAR
(P/N 770044-1)

PLUG FRONT
(P/N 770043-1)



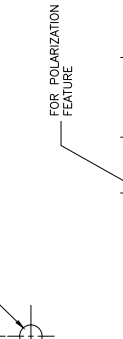
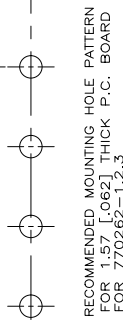
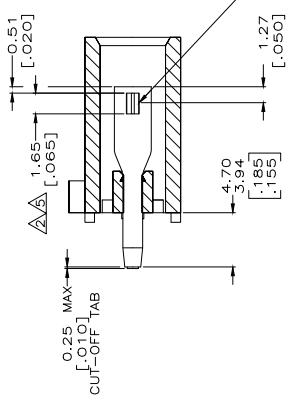
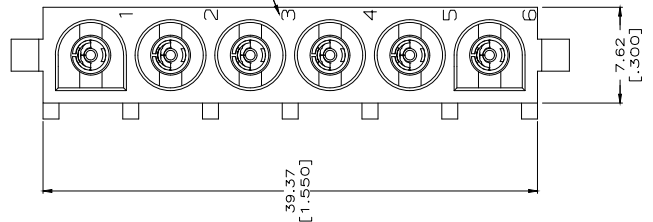
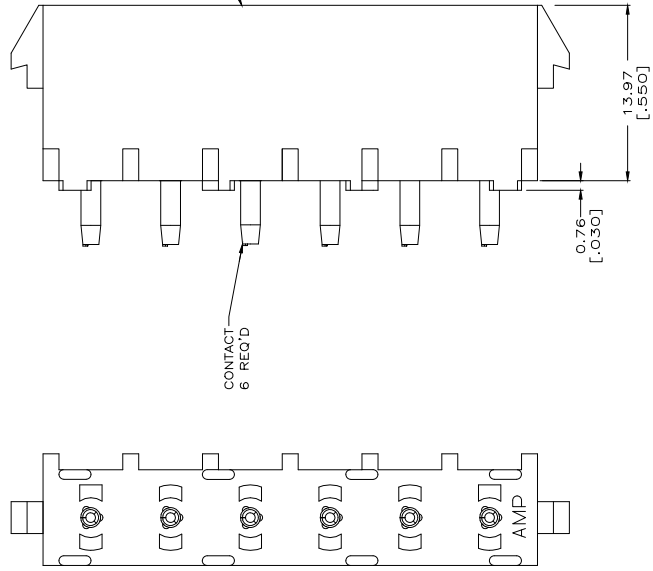
DO NOT SCALE PRINT. UNLESS SPECIFIED DIMENSIONS IN INCHES DIMENSIONS IN MILLIMETERS	DR 1-22-92 K. SALLON	AMP | AMP INCORPORATED Harrisburg, Pa. 17105	PART NO
1 PLG DEC # 0.13 (1.0051) 2 PLG DEC # 0.13 (1.0051) 3 PLG DEC # 0.13 (1.0051) MATERIAL # _____ NYLON, UL94V-0,	CHK 1-22-92 R. SWING APPD 1-22-92 M. TRULL APPD 1-22-92 M. TRULL PRODUCT SPEC		NAME PLUG HOUSING KIT, 15 CIRCUIT, UNIVERSAL MATE-N-LOK™ II	770023-1 PART NUMBER
FINISH _____	APPLICATION SPEC _____	SIZE D 00779	DRAWING NO 770023
WEIGHT _____	SCALE S:1	SHEET 1 OF 1	

CUSTOMER DRAWING

REV	DATE	BY	APP
1	21 JUN 2011	RS	SF

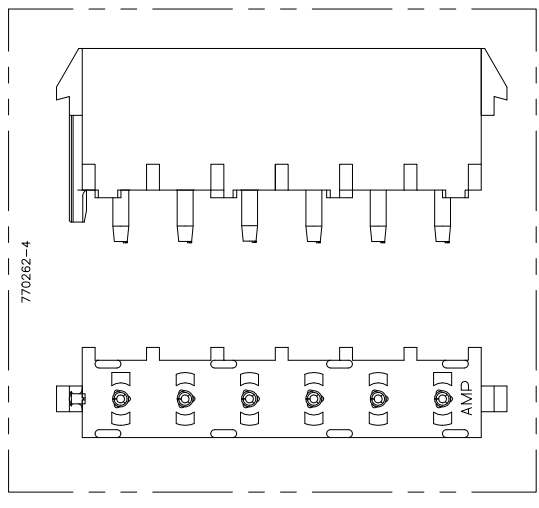
REVISED PER ECO-19-00295

- PARTS COMPLY TO AMP SOLDERABILITY SPECIFICATION 109-11-3.
- CONTACT IS PLATED WITH 0.000127 [.000050] NICKEL, THEN 0.000076 [.000030] GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN LEAD ON SOLDER TAIL END.
- CIRCUIT IDENTIFICATION CHARACTERS ARE ADJACENT TO THE INDICATED CAVITIES, BUT LOCATION AND ORIENTATION MAY DIFFER FROM PRINT.
- DIMENSIONS IN BRACKETS ARE IN INCHES.
- CONTACT IS PLATED WITH 0.000127 [.000050] NICKEL, THEN 0.000076 [.000030] GOLD OVER CONTACT LENGTH INDICATED AND MATTE TIN ON SOLDER TAIL END.
- SUPERSEDED BY 770262-3



RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 [.062] THICK P.C. BOARD FOR 770262-1,2,3

RECOMMENDED MOUNTING HOLE PATTERN FOR 1.57 [.062] THICK P.C. BOARD FOR 770262-4



3-DIMENSIONAL MODEL NTS

PHOS. PRZ.	PRE-TIN	POLARIZED HSG NYLON	UL94V-0, WHITE	770262-4
PHOSPHOR BRONZE, GOLD	PHOSPHOR BRONZE, GOLD	NYLON, UL94V-0, WHITE	NYLON, UL94V-0, WHITE	770262-3
PHOSPHOR BRONZE, GOLD	PHOSPHOR BRONZE, GOLD	NYLON, UL94V-0, WHITE	NYLON, UL94V-0, WHITE	770262-2
PHOSPHOR BRONZE, PRE-TIN	PHOSPHOR BRONZE, PRE-TIN	NYLON, UL94V-0, WHITE	NYLON, UL94V-0, WHITE	770262-1
CONTACT MATERIAL AND FINISH				PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.		SEE TABLE	
DESIGNER	DATE	REV	DATE
CHECKED	DATE	REV	DATE
APPROVED	DATE	REV	DATE
ISSUED	DATE	REV	DATE
REVISIONS	DATE	REV	DATE
MATERIAL		MATERIAL	
APPLICATION SPEC		APPLICATION SPEC	
PART NUMBER		PART NUMBER	
CUSTOMER DRAWING		CUSTOMER DRAWING	
SEE TABLE		SEE TABLE	
MATERIAL		MATERIAL	
APPLICATION SPEC		APPLICATION SPEC	
PART NUMBER		PART NUMBER	
CUSTOMER DRAWING		CUSTOMER DRAWING	