

# MALE PLUG M12 STRAIGHT



**NOTES:**

RATED VOLTAGE: 3, 4 contacts 250V

5 contacts 60V

8 contacts 30V

RATED CURRENT: 3, 4, 5 contacts 4A

8 contacts 2A

PROTECTION CLASS: IP 67

TEMPERATURE: -25°C / +85°C



**CONTACTS POSITION FRONT VIEW:**

3 CONTACTS		4 CONTACTS		5 CONTACTS		8 CONTACTS	
PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE
1	BROWN	1	BROWN	1	BROWN	1	WHITE
2	---	2	WHITE	2	WHITE	2	BROWN
3	BLUE	3	BLUE	3	BLUE	3	GREEN
4	BLACK	4	BLACK	4	BLACK	4	YELLOW
5	---	5	---	5	GREY OR GREEN/YELLOW	5	GREY
						6	PINK
						7	BLUE
						8	RED

CODING REQUIRED TO IEC 61076-2-101

**FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2**

ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH
7	SEE MATRIX	D CARRIER	PVC	TRANSPARENT
6	1	LABEL YELLOW	VINYL	---
5	-	CABLE	SEE SHEET 2	---
4	-	OVERMOLDING BLACK	TPU	---
3	1	COUPLING NUT MALE	BRASS	NICKEL
2	1	INSERT MALE BLACK	PUR	---
1	3 / 4 / 5 / 8	CONTACT M12 MALE	BRASS	SELECTIVE Au OVER Ni

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

DIMENSION UNITS: mm SCALE: 2:1

GENERAL TOLERANCES (UNLESS SPECIFIED):  
 ANGULAR TOL ± 1.0°  
 4 PLACES ±  
 3 PLACES ±  
 2 PLACES ± 0.05  
 1 PLACE ± 0.3  
 0 PLACES ± 0.5

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING: A3-SIZE

SERIES: 120065

MATERIAL NUMBER: SEE TABLE

CUSTOMER: GENERAL MARKET

SHEET NUMBER: 1 OF 4

EC NO: 732259  
 DRWN: SANTHN 2022/12/20  
 CHK'D: GGA 2022/12/21  
 APPR: GGA 2022/12/21

INITIAL REVISION:  
 DRWN: JMARSZALEK 2016/01/12  
 APPR: RSILLER 2016/04/08

DOCUMENT NUMBER: 1200659185  
 DOC TYPE: PSD  
 DOC PART: 000  
 REVISION: A11

**molex**

CSE M12 XP AC MA STR XM SE UNSH

PRODUCT CUSTOMER DRAWING

ENGINEERING NO. - NUMERICAL CODE (Available parts see PART LIST table. Others on request).

8 0 X 0 0 6 X X X X X X X X

OPTIONS

80=M12x1 Single ended

Contacts:  
3=3 Contacts  
4=4 Contacts  
5=5 Contacts  
8=8 Contacts

Heads style:  
006=Plug Male Straight

Cable type: See Table

Units:  
M=Meter

Length  
Examples:  
005=0.5 unit  
010=1 unit  
100=10 units

Overmold color:  
Blank (Standard)=Black  
A=Grey / G=Black / Y=Yellow  
For Cable A09=Yellow

Coupling Nut:  
Blank (Standard) & 3=Knurled Brass Ni Plated  
1 or 8=Hexagonal Stainless steel  
5=Knurled Derlin  
7=Knurled Brass Ni Plated, Teflon Coated  
Blank=7 for cables I20, I26, K03, K05, P82, S26  
9=Knurled / Hexagonal Brass Ni Plated

H= 2 pcs. of I/D Carrier PVC Transparent

COUPLING NUTS



CABLE INFORMATION (for more information see Cable Data Sheet).

CABLE TYPE	NO. OF WIRES	CROSS SECTION	CABLE JACKET	UL	CSA	STATIC: TEMP. / BENDING RADIUS	DYNAMIC: TEMP. / BENDING RADIUS	DRAG CHAIN	SHIELD
E02	3 / 4 / 5 / 8	0.25mm <sup>2</sup>	PVC BLACK	UL 2464/1729	C22.2 I/II A/B 80°C/300V	-30°C to +80°C, 10xO.D.	-10°C to +80°C, 15xO.D.	-	-
E03	3 / 4 / 5	0.34mm <sup>2</sup>	PVC BLACK	UL 2464/1729	C22.2 I/II A/B 80°C/300V	-30°C to +80°C, 10xO.D.	-10°C to +80°C, 15xO.D.	-	-
H08	3 / 4 / 5 / 8	0.25mm <sup>2</sup>	PUR BLACK LS0H	UL 21198/10493	C22.2 I/II A/B 80°C/300V	-40°C to +80°C, 5xO.D.	-25°C to +80°C, 10xO.D.	2 000 000 cycles at 20°C, Temp. range +5°C to +60°C	-
H09	3 / 4 / 5	0.34mm <sup>2</sup>	PUR BLACK LS0H	UL 21198/10493	C22.2 I/II A/B 80°C/300V	-40°C to +80°C, 5xO.D.	-25°C to +80°C, 10xO.D.	2 000 000 cycles at 20°C, Temp. range +5°C to +60°C	-
P02	3 / 4 / 5 / 8	0.25mm <sup>2</sup>	PUR / PVC BLACK	-	-	-30°C to +80°C, 7xO.D.	-5°C to +80°C, 15xO.D.	-	-
P03	3 / 4 / 5	0.34mm <sup>2</sup>	PUR / PVC BLACK	-	-	-30°C to +80°C, 7xO.D.	-5°C to +80°C, 15xO.D.	-	-
A09	3	0.34mm <sup>2</sup>	PVC YELLOW	-	-	-	-	-	-
K03	5	0.82mm <sup>2</sup>	TPE YELLOW	-	-	-	-	-	-
K05	4	0.38mm <sup>2</sup>	TPE YELLOW	-	-	-	-	-	-

CABLE LENGTH TOLERANCES

OVER	UP TO AND INCLUDING	TOLERANCES
0	305mm	+19mm
305mm	915mm	+45mm
915mm	1830mm	+56mm
1830mm	3660mm	+89mm
3660mm	7320mm	+165mm
7320mm	14640mm	+317mm
14640mm	30500mm	+610mm
30500mm	>	+2% of finished length



THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

DIMENSION UNITS	SCALE	CURRENT REV DESC: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871.	<b>molex</b>		
mm	1:1				
GENERAL TOLERANCES (UNLESS SPECIFIED)			CSE M12 XP AC MA STR XM SE UNSH		
ANGULAR TOL	± 1.0 °		PRODUCT CUSTOMER DRAWING		
4 PLACES	±	EC NO: 732259	DOCUMENT NUMBER		
3 PLACES	±	DRWN: SANTHN 2022/12/20	1200659185		
2 PLACES	± 0.05	CHK'D: GGA 2022/12/21	DOC TYPE DOC PART REVISION		
1 PLACE	± 0.3	APPR: GGA 2022/12/21	PSD 000 A11		
0 PLACES	± 0.5	INITIAL REVISION:	MATERIAL NUMBER CUSTOMER SHEET NUMBER		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRWN: JMARSZALEK 2016/01/12	SEE TABLE GENERAL MARKET 2 OF 4		
THIRD ANGLE PROJECTION		APPR: RSILLER 2016/04/08	A3-SIZE 120065		

# PART LIST

No.	Part No.	Engineering No.	Cable Length
1	1200060046	804006E03M120	12m
2	1200060047	804006P03M050	5m
3	1200060240	803006E03M020	2m
4	1200060241	803006E03M050	5m
5	1200060242	803006E03M100	10m
6	1200060256	803006P03M002	0.2m
7	1200060257	803006P03M020	2m
8	1200060260	803006P03M030	3m
9	1200060261	803006P03M050	5m
10	1200060558	804006E03M006	0.6m
11	1200060559	804006E03M010	1m
12	1200060560	804006E03M020	2m
13	1200060561	804006E03M030	3m
14	1200060562	804006E03M050	5m
15	1200060563	804006E03M100	10m
16	1200060570	804006P03M020	2m
17	1200060571	804006P03M030	3m
18	1200060572	804006P03M100	10m
19	1200060667	805006E03M020	2m
20	1200060668	805006E03M030	3m
21	1200060680	805006P03M020	2m
22	1200060682	805006P03M050	5m
23	1200061345	805006E03M050	5m
24	1200061611	803006E03M150	15m
25	1200061633	804006P03M010	1m
26	1200061853	803006P03M010	1m
27	1200061855	804006P03M006	0.6m
28	1200062017	803006E03M030	3m
29	1200062082	805006P03M060	6m
30	1200062122	804006E03M0201 *	2m
31	1200062209	805006E03M100	10m
32	1200062351	803006E03M0505	5m
33	1200062352	803006E03M1005	10m
34	1200062426	804006E03M200	20m
35	1200062560	808006P02M005	0.5m

No.	Part No.	Engineering No.	Cable Length
36	1200062596	805006E03M003	0.3m
37	1200062631	805006P03M120	12m
38	1200062799	805006E03M010	1m
39	1200062830	804006E03M0205	2m
40	1200062877	804006E03M0505	5m
41	1200062920	804006E03M1005	10m
42	1200063018	803006P03M0303	3m
43	1200063077	804006E02M005	0.5m
44	1200063470	804006E03M010H	1m
45	1200063472	804006P03M200	20m
46	1200063731	805006P03M0065	0.6m
47	1200063732	804006E03M0501	5m
48	1200063733	804006E03M1001 *	10m
49	1200063856	804006E03M1501 *	15m
50	1200063941	804006P03M0401	4m
51	1200063953	805006E03M035	3.5m
52	1200063969	804006E03M2001 **	20m
53	1200064160	803006P03M005	0.5m
54	1200064231	804006E03M2501 *	25m
55	1200064240	804006P03M070	7m
56	1200064251	804006E03M003	0.3m
57	1200064252	804006E03M005	0.5m
58	1200064261	804006P03M011	1.1m
59	1200064347	804006P03M007	0.7m
60	1200064353	803006E03M003	0.3m
61	1200064393	804006P03M020G	2m
62	1200064464	803006P03M005G	0.5m
63	1200065002	805006P03M0201	2m
64	1200650964	808006P02M020	2m
65	1200650967	808006P02M040	4m
66	1200650968	808006P02M050	5m
67	1200650969	808006P02M100	10m
68	1200651763	808006P02M030	3m
69	1200652141	804006P03M040	4m
70	1200652157	805006P03M040	4m


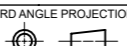
No.	Part No.	Engineering No.	Cable Length
71	1200652158	805006P03M100	10m
72	1200655011	805006P03M005	0.5m
73	1200655051	805006E03M006	0.6m
74	1200658055	803006P03M003	0.3m
75	1200658092	805006P03M010	1m
76	1200658109	808006P02M003	0.3m
77	1200658209	805006E03M0061 *	0.6m
78	1200658247	803006H09M100	10m
79	1200658248	803006H09M050	5m
80	1200658463	804006P03M150	15m
81	1200658500	805006E03M1001	10m
82	1200658518	804006E03M0201H	2m
83	1200658519	804006E03M0501H	5m
84	1200658526	803006E03M005	0.5m
85	1200658542	804006E03M070	7m
86	1200658546	808006E02M050	5m
87	1200658565	803006E03M010	1m
88	1200658566	803006E03M040	4m
89	1200658571	804006E03M040	4m
90	1200658576	808006E02M010	1m
91	1200658612	803006P03M040	4m
92	1200658613	803006P03M100	10m
93	1200658653	803006H09M010	1m
94	1200658654	803006H09M015	1.5m
95	1200658655	803006H09M020	2m
96	1200658656	803006H09M030	3m
97	1200658657	803006H09M040	4m
98	1200658659	808006H08M015	1.5m
99	1200658660	808006H08M020	2m
100	1200658661	808006H08M030	3m
101	1200658663	808006H08M050	5m
102	1200658727	804006H09M010	1m
103	1200658728	804006H09M015	1.5m
104	1200658729	804006H09M020	2m
105	1200658730	804006H09M030	3m

No.	Part No.	Engineering No.	Cable Length
106	1200658731	804006H09M040	4m
107	1200658732	804006H09M050	5m
108	1200658733	804006H09M100	10m
109	1200658741	805006H09M010	1m
110	1200658742	805006H09M015	1.5m
111	1200658743	805006H09M020	2m
112	1200658744	805006H09M030	3m
113	1200658745	805006H09M040	4m
114	1200658746	805006H09M050	5m
115	1200658747	805006H09M100	10m
116	1200658784	804006E03M0101H	1m
117	1200658785	804006E03M1001H	10m
118	1200658876	804006E03M150	15m
119	1200658881	803006E03M050G	5m
120	1200658888	804006E03M020H	2m
121	1200658890	804006H09M003	0.3m
122	1200658892	803006H09M003	0.3m
123	1200658893	804006E03M050H	5m
124	1200658895	804006H09M200	20m
125	1200658897	805006E03M200	20m
126	1200658913	805006P03M030	3m
127	1200659034	804006E02M050	5m
128	1200659036	804006E02M070	7m
129	1200659037	804006E02M100	10m
130	1200659041	808006E02M005	0.5m
131	1200659109	804006E02M020	2m
132	1200659111	803006E02M050	5m
133	1200659141	805006H09M200	20m
134	1200659142	805006H09M300	30m
135	1200659145	805006E03M300	30m
136	1200659149	805006H09M005	0.5m
137	1200659154	804006P03M100Y	10m
138	1200659185	805006E03M080	8m
139	1200659186	804006E03M060	6m
140	1200659190	804006P03M250	25m

**NOTES:**

\* - Part No. with Yellow PVC overmolding

\*\* - Part No. with Black PVC overmolding

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
DIMENSION UNITS	SCALE	CURRENT REV DESC: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871.							
mm	1:1	 CSE M12 XP AC MA STR XM SE UNSH							
GENERAL TOLERANCES (UNLESS SPECIFIED)									
ANGULAR TOL	± 1.0 °	EC NO: 732259 DRWN: SANTHN 2022/12/20 CHK'D: GGA 2022/12/21 APPR: GGA 2022/12/21							
4 PLACES	±								
3 PLACES	±	INITIAL REVISION: DRWN: JMARSZALEK 2016/01/12 APPR: RSILLER 2016/04/08							
2 PLACES	± 0.05								
1 PLACE	± 0.3	DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION	
0 PLACES	± 0.5	1200659185		PSD		000		A11	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER		SHEET NUMBER	
			A3-SIZE	120065	SEE PART LIST	GENERAL MARKET		3 OF 4	

DOCUMENT STATUS	P1	RELEASE DATE	2022/12/21	07:37:46
-----------------	----	--------------	------------	----------

# PART LIST

No.	Part No.	Engineering No.	Cable Length
141	1200659191	804006P03M300	30m
142	1200659192	804006P03M350	35m
143	1200659193	804006P03M400	40m
144	1200659194	804006E03M250	25m
145	1200659195	804006E03M300	30m
146	1200659196	804006E03M350	35m
147	1200659197	804006E03M400	40m
148	1200659198	804006E03M450	45m
149	1200659224	805006P03M200	20m
150	1200659225	805006P03M300	30m
151	1200659254	804006E03M500	50m
152	1200659281	805006P03M150	15m
153	1200659285	805006E03M150	15m
154	1200659316	805006P03M005H	0.5m
155	1200659317	805006P03M007H	0.7m
156	1200659318	805006P03M010H	1m
157	1200659319	805006P03M020H	2m
158	1200659320	805006P03M050H	5m
159	1200659321	805006P03M100H	10m
160	1200659322	805006P03M150H	15m
161	1200659323	805006P03M200H	20m
162	1200659324	805006P03M300H	30m
163	1200659325	805006P03M350H	35m
164	1200659367	805006E03M015	1.5m
165	1200659454	805006E03M045	4.5m
166	1200659455	805006E03M075	7.5m
167	1200659513	805006E03M030H	3m
168	1200659514	805006E03M045H	4.5m
169	1200659515	805006E03M075H	7.5m
170	1200659550	804006E03M120H	12m
171	1200659551	805006E03M010H	1m
172	1200659557	804006P03M003	0.3m
173	1200659612	804006P03M080	8m
174	1200659692	803006E02M020	2m
175	1200659983	804006E02M075	7.5m

No.	Part No.	Engineering No.	Cable Length
176	1200659991	804006E02M0705	7m
177	1200656021	804006H09M050H	5m
178	1200659539	808006E02M100	** 10m
179	1200656293	803006E03M080	8m
180	1200656294	803006E03M120	12m
181	1200656295	804006E03M080	8m
182	1200656297	808006H08M005	0.5m
183	1200650843	803006A09M0208	* 2m
184	1200651374	805006K03M020	2m
185	1200652151	805006K03M050	5m
186	1200651129	804006K05M020	2m
187	1200651131	804006K05M050	5m
188	1200651133	804006K05M100	10m
189	1200657191	805006E03M005	0.5m
190	1200656974	805006H09M003	0.3m
191	1200657157	804006P03M002	0.2m
192	1200657158	804006P03M005	0.5m
193	1200657159	804006E03M015	1.5m
194	1200657263	805006H09M250	25m
195			
196			
197			
198			
199			
200			
201			
202			
203			
204			
205			
206			
207			
208			
209			
210			

No.	Part No.	Engineering No.	Cable Length
211			
212			
213			
214			
215			
216			
217			
218			
219			
220			
221			
222			
223			
224			
225			
226			
227			
228			
229			
230			
231			
232			
233			
234			
235			
236			
237			
238			
239			
240			
241			
242			
243			
244			
245			

No.	Part No.	Engineering No.	Cable Length
246			
247			
248			
249			
250			
251			
252			
253			
254			
255			
256			
257			
258			
259			
260			
261			
262			
263			
264			
265			
266			
267			
268			
269			
270			
271			
272			
273			
274			
275			
276			
277			
278			
279			
280			

NOTES:  
 \* - Part No. with Yellow PVC overmolding  
 \*\* - Part No. with Black PVC overmolding

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
DIMENSION UNITS	SCALE	CURRENT REV DESC: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871.							
mm	1:1	 CSE M12 XP AC MA STR XM SE UNSH PRODUCT CUSTOMER DRAWING							
GENERAL TOLERANCES (UNLESS SPECIFIED)									
ANGULAR TOL	± 1.0 °	EC NO: 732259	2022/12/20		DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION
4 PLACES	±	DRWN: SANTHN	2022/12/21		1200659185		PSD	000	A11
3 PLACES	±	CHK'D: GGA	2022/12/21		INITIAL REVISION:				
2 PLACES	± 0.05	APPR: GGA	2022/12/21		DRWN: JMARSZALEK				
1 PLACE	± 0.3	APPR: RSILLER		2016/01/12		MATERIAL NUMBER		CUSTOMER	
0 PLACES	± 0.5			2016/04/08		SEE PART LIST		GENERAL MARKET	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	SHEET NUMBER				
			A3-SIZE	120065	4 OF 4				