

# PART No. MATRIX

8 8 C 0 3 0 H 4 5 M X X X X

88 = MICRO CHANGE M12 DOUBLE ENDED

NUMBER OF POLES: C = 12 POLES

HEADS STYLE: 030 = FEMALE STRAIGHT - MALE STRAIGHT

CABLE: H45 = 12x0.14mm<sup>2</sup> PUR BK

UNITS: M = METERS

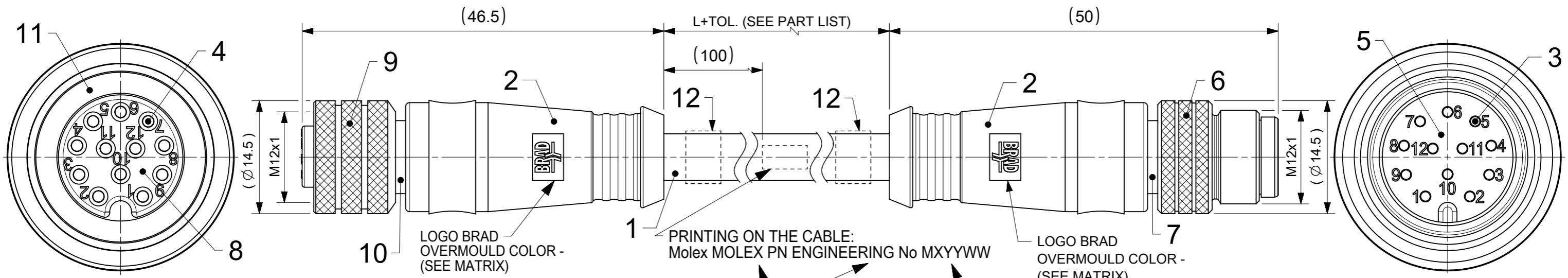
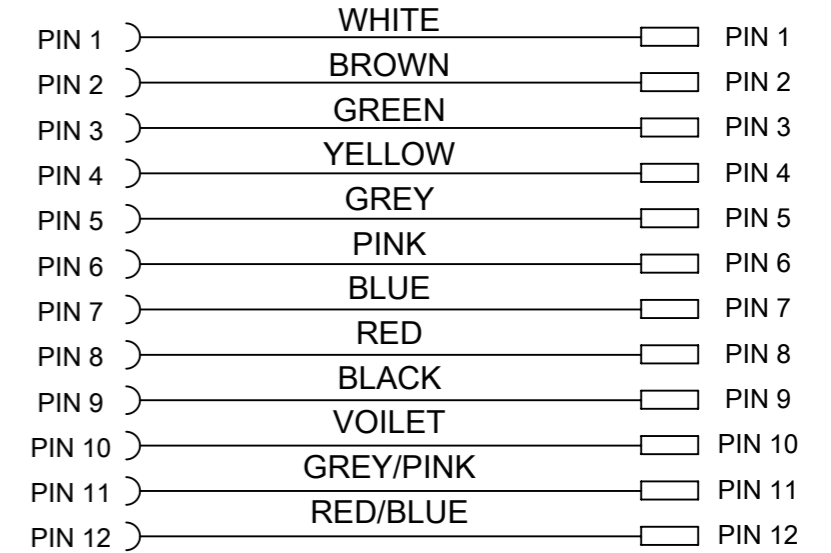
LENGTH EXAMPLES:  
020 = 2 m  
050 = 5 m  
200 = 20 m

MOULDINGU COLOR :  
BLANK = (STANDARD BLACK)  
A = GREY  
G = YELLOW

MATERIAL COUPLING NUT :  
1 = HEX / STAINLESS STEEL  
5 = DERLIN  
7 = TEFLON

H = 2x ID CARRIER

# WIRING DIAGRAM



VIEW FROM THE FRONT SIDE SCALE 4:1

VIEW FROM THE FRONT SIDE SCALE 4:1

NOTE:  
1. IF IN MATRIX IS "H", REFERS ID-CARRIER'S ON THE BOTH SIDES HARNESS

CABLE SPECIFICATION:  
CONDUCTOR:  
MATERIAL: BARE COPPER  
CROSS SECTION: 24 AWG / 0.25 mm  
INSULATION COMPOUND: TPE  
INSULATION DIAMETER:  $\varnothing 1.15 \pm 0.10$ mm  
OUTER JACKET:  
COMPOUND: PUR  
COLOR: BLACK  
DIAMETER:  $\varnothing 6.00 \pm 0.30$ mm

ELECTRICAL DATA :  
VOLTAGE RATING : 30V  
AMPERAGE RATING : 2A  
INSULATION RESISTANCE :  $10^8 \Omega$  MIN.  
MATING CYCLES : MIN. 100  
ENVIRONMENTAL :  
IP PROTECTION CLASS : IP67  
OPERATING TEMPERATURE : -25°C TO +85°C

## PART LIST

MOLEX PN	ENGINEERING NO.	LENGTH (mm)
1200665404	88C030H45M010	1000
1200669493	88C030H45M020	2000
1200669184	88C030H45M030	3000
1200669494	88C030H45M040	4000
1200669414	88C030H45M040H	4000
1200665067	88C030H45M050	5000
1200669415	88C030H45M050H	5000
1200669741	88C030H45M060	6000
1200668851	88C030H45M300H	30000
1200669748	88C030H45M080	8000

## BOM

ITEM NO.	QTY	DESCRIPTION	MATERIAL	FINISH/COLOR
12	SEE PART LIST	I/D CARRIER DIA 4-7MMX30MM	PVC	TRANSPARENT
11	1	GASKET	FPM	RED
10	1	M12S-SHELL-FEMALE SHIELD	BRASS	Ni-PLATED
9	1	NUT M12 BRA FE KNU NI	BRASS	Ni-PLATED
8	1	INSERT M12 FE 12P AC SHD	PUR	BLACK
7	1	M12 M STR SHLDSL V D7.4	BRASS	Ni-PLATED
6	1	M12S-Male Coupling Nut 12P	BRASS	Ni-PLATED
5	1	INSERT U12 MA 12P AC SHORT	PA	BLACK
4	12	M12-Female-Contact-12pol	BRASS	SELECTIVE GOLD OVER NICKEL
3	12	M12 MALE Contact-12pol	BRASS	OVER NICKEL
2	-	OVERMOULD	TPU	BLACK
1	SEE PART LIST	cable12x0.14blk PUR D6.0 UL/CSA	PUR	BLACK

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

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

FUNCTIONAL SYMBOLS:  $\nabla/A = 0$ ,  $\nabla/E = 0$ ,  $\nabla/F = 0$

DIVISIONAL SYMBOLS: 4 PLACES  $\pm$ , 3 PLACES  $\pm$ , 2 PLACES  $\pm 0.05$ , 1 PLACE  $\pm 0.3$ , 0 PLACES  $\pm 0.5$

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING: A3-SIZE

SERIES: 120066

MATERIAL NUMBER: SEE PART LIST

CUSTOMER: GENERAL MARKET

SHEET NUMBER: 1 OF 1

EC NO: 651920  
DRWN: MDHARMANTI 2020/12/21  
CHK'D: RSILLER 2020/12/22  
APPR: RSILLER 2020/12/22

INITIAL REVISION:  
DRWN: MDHARMANTI 2020/03/25  
APPR: RSILLER 2020/03/30

DOCUMENT NUMBER: 1200669741

DOC TYPE: PSD

DOC PART: 000

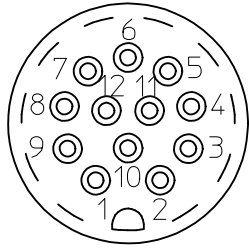
REVISION: A1

**molex**

CSE M12 12P AC FE STR PUR MA STR XM

PRODUCT CUSTOMER DRAWING

M12 12 POLE FEMALE



VIEW FROM THE WIRES SIDE

Pin	Wire color
1	WHITE
2	BROWN
3	GREEN
4	YELLOW
5	GRAY
6	PINK
7	BLUE
8	RED
9	BLACK
10	VIOLET
11	GRAY/PINK
12	RED/BLUE

PART No MATRIX

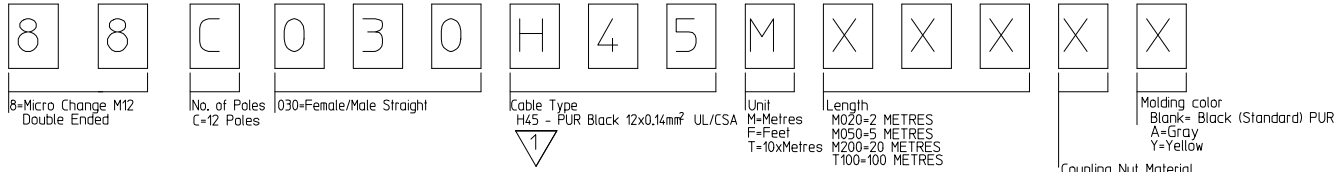
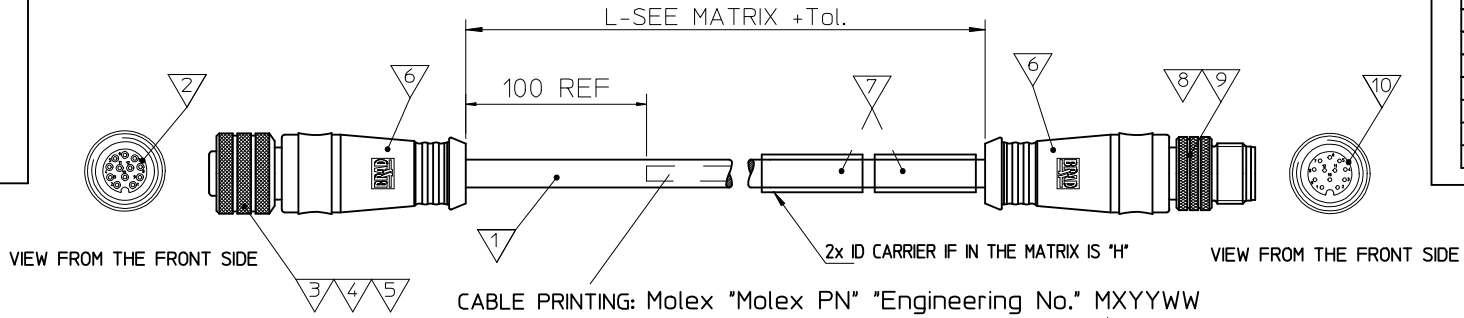
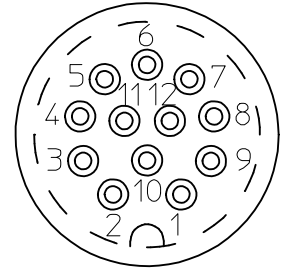


Table of length tolerances

Over	Up to and including	Tolerance (+)
0	305	+19
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M12 12 POLE MALE



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Bill of Materials

ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH
10	1	INSERT M12 12P MALE	ULTRAMID	BLACK
9	12	CONTACT MALE	CuZn38Pb2	Cu/Ni Au0.5
8	1	COUPLING NUT MALE M12	SEE MATRIX	SEE MATRIX
7	-	ID CARRIER	SEE MATRIX	SEE MATRIX
6	-	MOLDING MATERIAL	SEE MATRIX	SEE MATRIX
5	1	O-RING	FPM	RED
4	12	CONTACT FEMALE	CuZn38Pb2	Cu/Ni2 AuCo0.6
3	1	COUPLING NUT FEMALE M12	SEE MATRIX	SEE MATRIX
2	1	INSERT M12 12P FEMALE	ELASTOLLAN	BLACK
1	-	CABLE 12x0,14 mm <sup>2</sup>	PUR	BLACK

ORIGINAL RELEASE EC NO: IPG2016-0383 DRWN:AKONDRACIUK 2015/09/09 CHKD:MMAJGAT 2015/09/09 APPR:MIWASIECZKO 2015/09/29

QUALITY SYMBOLS: ▽=0, ◻=0

GENERAL TOLERANCES (UNLESS SPECIFIED): mm, INCH

DIMENSION STYLE: MM ONLY

SCALE: ---

DESIGN UNITS: METRIC

THIRD ANGLE PROJECTION

TITLE: CSE M12 M12 12P AC FE STR PUR MA STR XM DE UNSH BK BRA AU

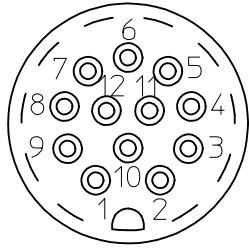
DATE ACCORDING TO WN-00001 WHERE: YY-year, WW-week

SEE MATRIX

DOCUMENT NO. SD-120066-060 SHEET NO. 1 OF 1

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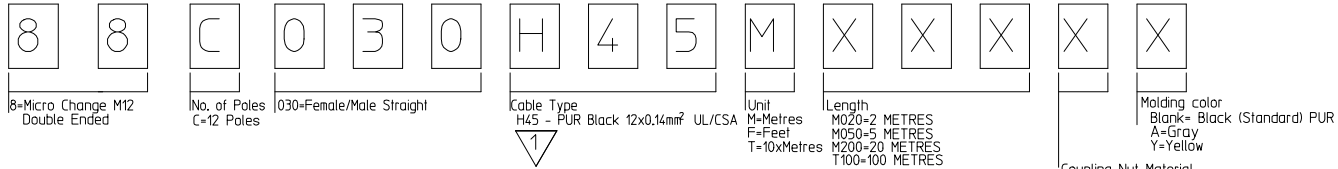
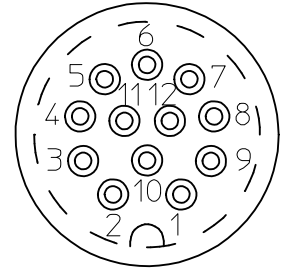


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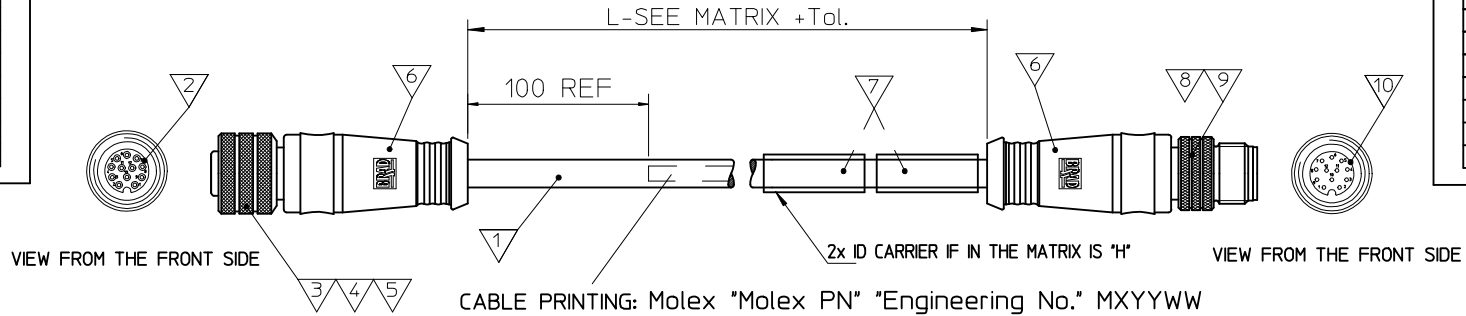
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1	-	CABLE 12x0,14 mm <sup>2</sup>	PUR	BLACK

<p>ORIGINAL RELEASE</p> <p>EC NO: IPG2016-0383</p> <p>DRWN:AKONDRACIUK 2015/09/09</p> <p>CHKD:MMAJGAT 2015/09/09</p> <p>APPR:MIWASIECZKO 2015/09/29</p>	<p>QUALITY SYMBOLS</p> <p>▽=0</p> <p>◻=0</p>	<p>GENERAL TOLERANCES (UNLESS SPECIFIED)</p>		<p>DIMENSION STYLE</p> <p>MM ONLY</p>		<p>SCALE</p> <p>---</p>	<p>DESIGN UNITS</p> <p>METRIC</p>	<p>THIRD ANGLE PROJECTION</p>	
		<p>4 PLACES ± --- ± ---</p>	<p>3 PLACES ± --- ± ---</p>	<p>DRAWN BY</p> <p>AKONDRACIUK</p>	<p>DATE</p> <p>2015/09/09</p>	<p>TITLE</p> <p>CSE M12 M12 12P AC FE STR PUR MA STR XM DE UNSH BK BRA AU</p>			
		<p>2 PLACES ± --- ± ---</p>	<p>1 PLACE ± --- ± ---</p>	<p>CHECKED BY</p> <p>MMAJGAT</p>	<p>DATE</p> <p>2015/09/09</p>	<p>DOCUMENT NO.</p> <p>SD-120066-060</p>			
		<p>0 PLACE ± --- ± ---</p>	<p>ANGULAR ± 1 °</p>	<p>APPROVED BY</p> <p>MIWASIECZKO</p>	<p>DATE</p> <p>2015/09/29</p>	<p>SHEET NO.</p> <p>1 OF 1</p>			
<p>DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS</p>		<p>SEE MATRIX</p>		<p>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION</p>					