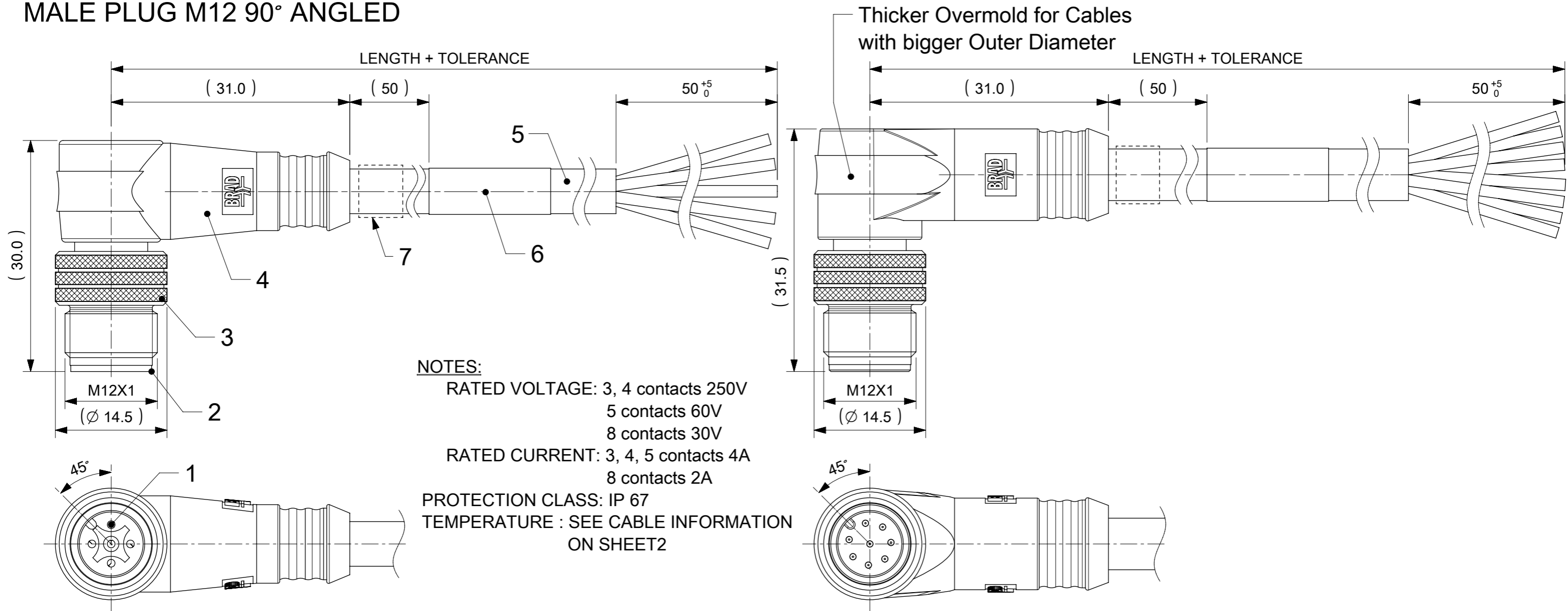


# MALE PLUG M12 90° ANGLED



## 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	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	0 OR 2	I/D CARRIER (SEE MATRIX)	PVC	TRANSPARENT
6	1	LABEL YELLOW	VINYL	---
5	-	CABLE	SEE SHEET 2	---
4	-	OVERMOULDING 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

FUNCTIONAL SYMBOLS:  $\nabla_A = 0$ ,  $\nabla_E = 0$ ,  $\nabla_V = 0$

DIMENSION UNITS: mm SCALE: 2:1

GENERAL TOLERANCES (UNLESS SPECIFIED): ANGULAR TOL ± 1.0°

DIVISIONAL SYMBOLS: 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 SHEET 3

CUSTOMER: GENERAL MARKET

SHEET NUMBER: 1 OF 3

EC NO: 639071  
DRWN: MDHARMANTI 2020/06/04  
CHK'D: RSILLER 2020/06/08  
APPR: RSILLER 2020/06/08

INITIAL REVISION:  
DRWN: JMARSZALEK 2016/01/14  
APPR: RSILLER 2016/04/08

DOCUMENT NUMBER: 1200659138

DOC TYPE: PSD

DOC PART: 000

REVISION: A3

**molex**

CSE M12 XP AC MA RA XM SE UNSH

PRODUCT CUSTOMER DRAWING

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

8 0 X 0 0 7 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:  
007=Plug Male  
90° Angled

Cable type: See Table

Units:  
M=Meter

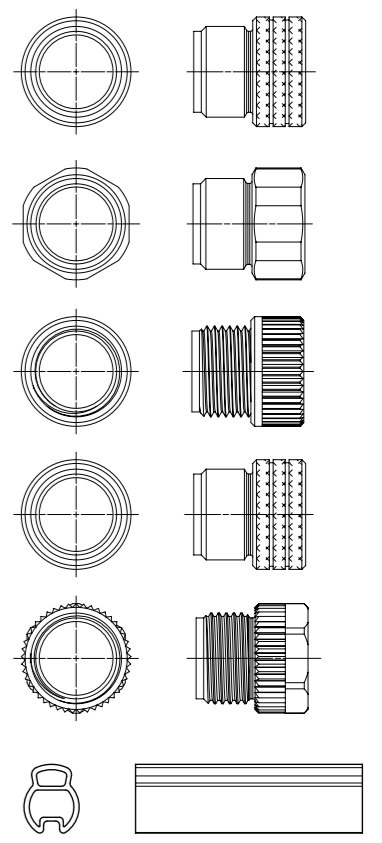
Length  
Examples:  
005=0.5 unit  
010=1 unit  
100=10 units

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

Coupling Nut:  
Blank (Standard) & 3=Knurled Brass Ni Plated  
1=Hexagonal Stainless steel  
5=Knurled Delrin  
7=Knurled Brass Ni Plated, Teflon Coated  
9=Knurled / Hexagonal Brass Ni Plated

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

COUPLING NUTS

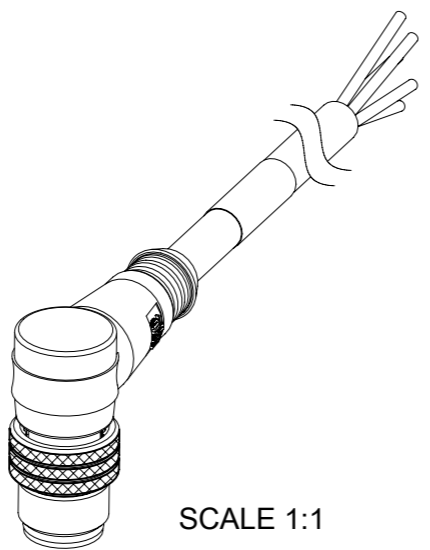


CABLE INFORMATION (for more information see Cable Data Sheet).

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.	-	-
E13	3	18AWG	PVC YELLOW	UL 2661/1731	I/II A/B 80°C/300V	-	-	-	-
E52	3 / 4 / 8	0.34mm <sup>2</sup>	PVC GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
H69	4	0.20mm <sup>2</sup>	PUR GREY LS0H	-	-	-	-	-	-
I03	3 / 4 / 5	0.34mm <sup>2</sup>	PVC CEI GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
K03	4 / 5	0.34mm <sup>2</sup>	TPE YELLOW	-	I/II A/B 90°C/300V	-40°C to +105°C	-	-	-
K05	3 / 4 / 5	0.34mm <sup>2</sup>	TPE YELLOW	UL ITC E195601 or PLC	I/II A/B 90°C/300V	-	-	-	-
P12	3 / 5	0.50mm <sup>2</sup>	PUR BLACK	-	-	-30°C to +90°C	-5°C to +90°C	-	-
P82	3 / 4 / 5	0.34mm <sup>2</sup>	PUR IRR ORANGE	-	-	-50°C to +105°C, 5xO.D.	-40°C to +105°C, 7.5xO.D.	-	-

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



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FUNCTIONAL SYMBOLS:  $\sqrt{A} = 0$ ,  $\sqrt{E} = 0$ ,  $\sqrt{V} = 0$

DIMENSION UNITS: mm

SCALE: 1:1

GENERAL TOLERANCES (UNLESS SPECIFIED):

ANGULAR TOL:  $\pm 1.0^\circ$

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: 120065

MATERIAL NUMBER: SEE SHEET 3

CUSTOMER: GENERAL MARKET

SHEET NUMBER: 2 OF 3

EC NO: 639071

DRWN: MDHARMANTI 2020/06/04

CHK'D: RSILLER 2020/06/08

APPR: RSILLER 2020/06/08

INITIAL REVISION: DRWN: JMARSZALEK 2016/01/14, APPR: RSILLER 2016/04/08

DOCUMENT NUMBER: 1200659138

DOC TYPE: PSD

DOC PART: 000

REVISION: A3

**molex**

CSE M12 XP AC MA RA XM SE UNSH

PRODUCT CUSTOMER DRAWING

# PART LIST

No.	Part No.	Engineering No.	Cable Length
1	1200060273	803007E03M020	2m
2	1200060275	803007E03M050	5m
3	1200060288	803007P03M020	2m
4	1200060289	803007P03M030	3m
5	1200060582	804007E03M010	1m
6	1200060583	804007E03M030	3m
7	1200060584	804007E03M050	5m
8	1200060587	804007H69M020	2m
9	1200060589	804007I03M020	2m
10	1200060592	804007P03M020	2m
11	1200060593	804007P03M030	3m
12	1200060594	804007P03M050	5m
13	1200060595	804007P03M100	10m
14	1200060696	805007P03M015	1.5m
15	1200060697	805007P03M020	2m
16	1200060699	805007P03M040	4m
17	1200061764	804007P03M010	1m
18	1200061975	804007E03M020	2m
19	1200062055	803007P03M050	5m
20	1200062238	804007E03M100	10m
21	1200062498	805007E03M100	10m
22	1200062638	804007E03M006	0.6m
23	1200062680	804007E03M0101	1m
24	1200062681	804007E03M0201	2m
25	1200062682	804007E03M0501	5m
26	1200062929	805007E03M050	5m
27	1200063575	804007E03M1001	10m
28	1200063576	804007E03M1501	15m
29	1200063656	804007E03M2001	20m
30	1200063831	804007E52M100	10m
31	1200064175	804007E03M4001	40m
32	1200064178	804007P03M005	0.5m
33	1200064280	804007E03M200	20m
34	1200064294	804007P03M200	20m
35	1200064394	804007P03M020G	2m

No.	Part No.	Engineering No.	Cable Length
36	1200651688	804007K03M050	5m
37	1200651691	804007K05M020	2m
38	1200651693	804007K05M050	5m
39	1200651800	808007P02M020	2m
40	1200652026	804007K03M100	10m
41	1200652145	804007P03M040	4m
42	1200652149	805007P03M060	6m
43	1200652159	805007K03M020	2m
44	1200652161	805007K03M050	5m
45	1200655006	805007P03M100	10m
46	1200655015	804007P82M0507	5m
47	1200655016	804007P82M1007	10m
48	1200655017	804007P82M2007	20m
49	1200658005	804007P82M0107	1m
50	1200658096	805007E03M020	2m
51	1200658186	805007P03M050	5m
52	1200658229	803007E13M050	5m
53	1200658235	804007E03M2501	25m
54	1200658258	808007P02M050	5m
55	1200658259	808007P02M100	10m
56	1200658327	805007I03M015	1.5m
57	1200658506	803007E03M100	10m
58	1200658515	804007E03M0501H	5m
59	1200658516	804007E03M1001H	10m
60	1200658522	805007P12M020	2m
61	1200658567	803007E03M010	1m
62	1200658568	803007E03M030	3m
63	1200658569	803007E03M040	4m
64	1200658572	804007E03M040	4m
65	1200658596	803007I03M010	1m
66	1200658597	803007I03M040	4m
67	1200658598	803007I03M100	10m
68	1200658602	804007I03M010	1m
69	1200658603	804007I03M030	3m
70	1200658604	804007I03M040	4m

No.	Part No.	Engineering No.	Cable Length
71	1200658614	803007P03M040	4m
72	1200658615	803007P03M010	1m
73	1200658618	803007P03M100	10m
74	1200658720	803007H09M010	1m
75	1200658721	803007H09M015	1.5m
76	1200658722	803007H09M020	2m
77	1200658723	803007H09M030	3m
78	1200658724	803007H09M040	4m
79	1200658725	803007H09M050	5m
80	1200658726	803007H09M100	10m
81	1200658734	804007H09M010	1m
82	1200658735	804007H09M015	1.5m
83	1200658736	804007H09M020	2m
84	1200658737	804007H09M030	3m
85	1200658738	804007H09M040	4m
86	1200658739	804007H09M050	5m
87	1200658740	804007H09M100	10m
88	1200658748	805007H09M010	1m
89	1200658749	805007H09M015	1.5m
90	1200658750	805007H09M020	2m
91	1200658751	805007H09M030	3m
92	1200658752	805007H09M040	4m
93	1200658753	805007H09M050	5m
94	1200658754	805007H09M100	10m
95	1200658757	808007H08M020	2m
96	1200659081	804007E03M050Y	5m
97	1200659138	805007E03M010	1m
98	1200659143	805007H09M200	20m
99	1200659146	805007E03M200	20m
100	1200659151	805007P03M150	15m
101	1200659172	805007I03M100A	10m
102	1200659204	805007P12M050	5m
103	1200659230	805007P03M010	1m
104	1200659231	805007P03M200	20m
105	1200659247	805007E03M020Y	2m

No.	Part No.	Engineering No.	Cable Length
106	1200659249	805007P03M050Y	5m
107	1200659540	805007E03M030	3m
108			
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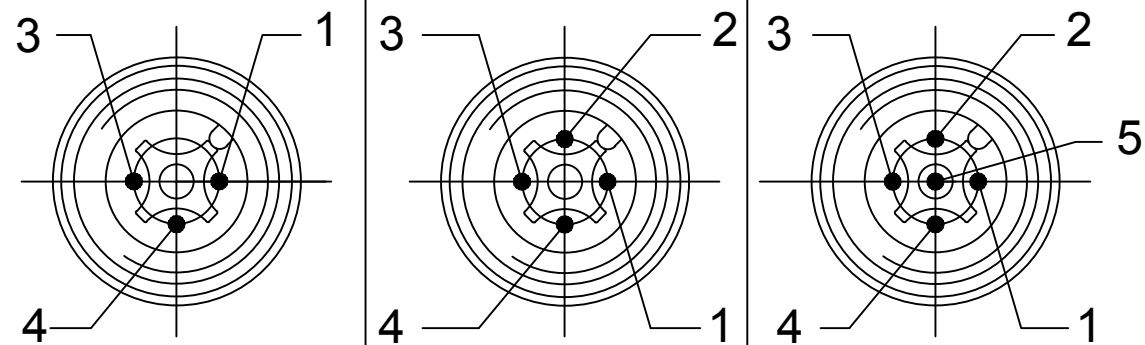
FUNCTIONAL SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	CURRENT REV DESC:		<b>molex</b>																			
	<table border="1"> <tr><td>FUNCTIONAL SYMBOLS</td><td>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION</td></tr> <tr><td>SCALE</td><td>1:1</td></tr> <tr><td>DIMENSION UNITS</td><td>mm</td></tr> <tr><td>GENERAL TOLERANCES (UNLESS SPECIFIED)</td><td></td></tr> <tr><td>ANGULAR TOL</td><td>± 1.0°</td></tr> <tr><td>4 PLACES</td><td>±</td></tr> <tr><td>3 PLACES</td><td>±</td></tr> <tr><td>2 PLACES</td><td>± 0.05</td></tr> <tr><td>1 PLACE</td><td>± 0.3</td></tr> <tr><td>0 PLACES</td><td>± 0.5</td></tr> </table>	FUNCTIONAL SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		SCALE	1:1	DIMENSION UNITS	mm	GENERAL TOLERANCES (UNLESS SPECIFIED)		ANGULAR TOL	± 1.0°	4 PLACES	±	3 PLACES	±	2 PLACES	± 0.05	1 PLACE	± 0.3	0 PLACES	± 0.5	EC NO: 639071 DRWN: MDHARMANTI 2020/06/04 CHK'D: RSILLER 2020/06/08 APPR: RSILLER 2020/06/08
FUNCTIONAL SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																						
SCALE	1:1																						
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1 PLACE	± 0.3																						
0 PLACES	± 0.5																						
DIVISIONAL SYMBOLS	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS THIRD ANGLE PROJECTION DRAWING: A3-SIZE SERIES: 120065 MATERIAL NUMBER: SEE PART LIST CUSTOMER: GENERAL MARKET SHEET NUMBER: 3 OF 3																						

**MALE FACE VIEW**

**3-POLE**

**4-POLE**

**5-POLE**



**WIRING DIAGRAM**

1 BROWN 3 BLUE 4 BLACK	1 BROWN 2 WHITE 3 BLUE 4 BLACK	1 BROWN 2 WHITE 3 BLUE 4 BLACK 5 GRAY
------------------------------	---	---

PART NO.	ENGINEERING NO.	FINISHED LENGTH	POLES	CABLE DIA
1200651501	803007K05M020	2.0M [6'7"]	3	.20/5.1
1200651692	804007K05M040	4.0M [13'1"]	4	.21/5.3
1200652477	805007K05M100	10.0M [32'10"]	5	.23/5.8

**PART NO. LEGEND**

**803007K05M020**

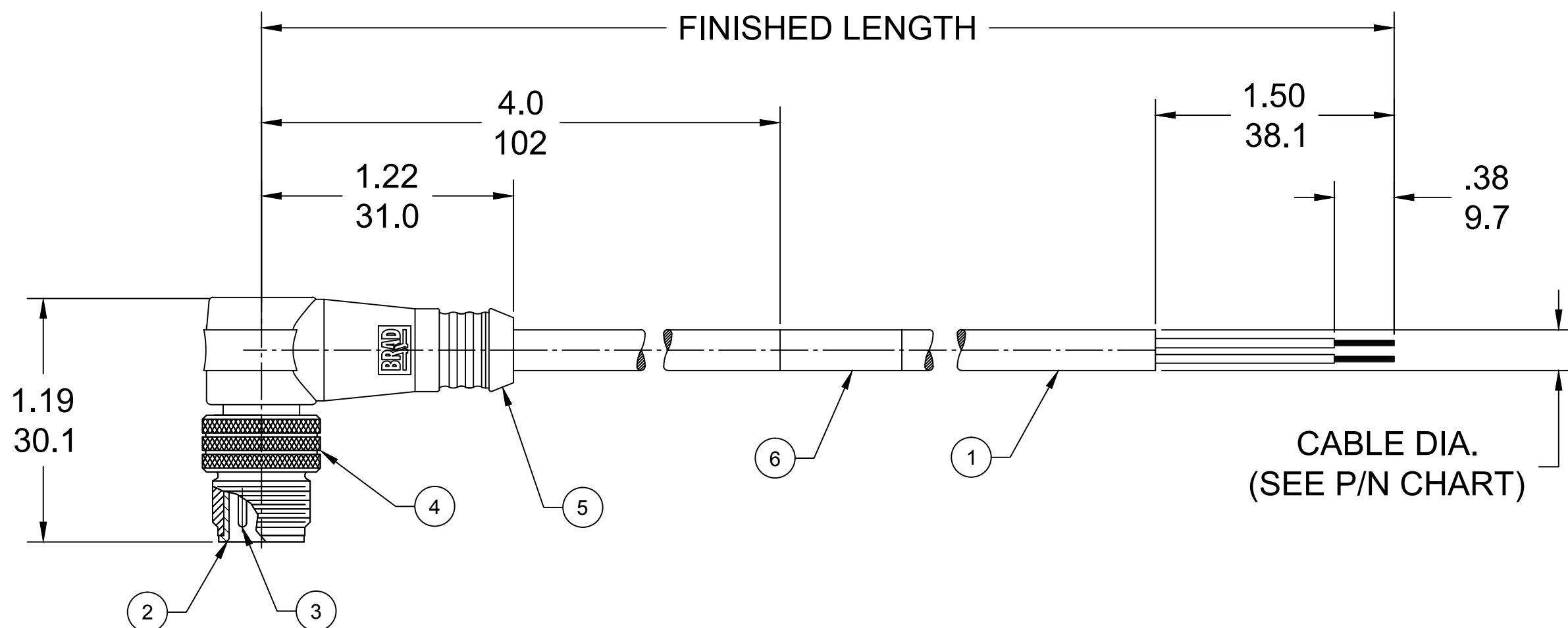
POLES: 3,4 & 5

CABLE TYPE  
22AWG  
TPE YELLOW

FINISHED LENGTH  
M005----0.5 Meters  
M010----1.0 Meter  
M100----10 Meters

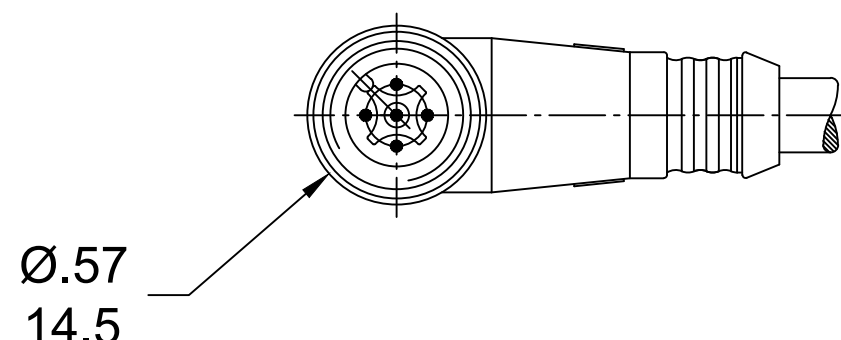
**NOTES:**

- MATERIAL: AS NOTED
- FINISH: AS NOTED
- ELECTRICAL:  
VOLTAGE: 250V  
CURRENT: 4A
- TEMP RATING: -25°TO +105°C
- PROTECTION: IP67 (WHEN MATED)
- COUPLING THREAD: M12 X 1
- UL RECOGNIZED FILE: E152210  
CSA CERTIFIED FILE: LR6837
- ALL DIMS ARE FOR REFERENCE UNLESS NOTED OTHERWISE



**CABLE FLEX CHARACTERISTICS**

TORSIONAL FLEX TEST	10 MILLION CYCLES PER MIL-C-13777G
BEND FLEX TEST	10 MILLION CYCLES PER MIL-C-13777G
WELD SLAG RESISTANCE	WOODHEAD STANDARD S-300



**CABLE LENGTH TOLERANCES**

>.3M [1FT]:	+19mm-0 [+1.75in-0]
.3 - .9M [1 - 3FT]:	+44.5mm-0 [+1.75in-0]
.9 - 1.8M [3 - 6FT]:	+55.6mm-0 [+2.19in-0]
1.8 - 3.7M [6 - 12FT]:	+88.9mm-0 [+3.50in-0]
3.7 - 7.3M [12 - 24FT]:	+165.1mm-0 [+6.50in-0]
7.3-14.6M [24 - 48FT]:	+317.5mm-0 [+12.50in-0]
14.6 - 30.5M [48-100FT]:	+622.3mm-0 [+24.50in-0]
OVER 30M [100FT]	+2% OF FINISHED LENGTH

ITEM	DESCRIPTION	MATERIAL	FINISH
6	WRAP LABEL	VINYL	BLACK/YELLOW
5	OVERMOLD	TPE	YELLOW
4	COUPLING NUT	BRASS	NICKEL PLATED
3	CONTACT PIN	COPPER ALLOY	GOLD PLATED
2	MALE INSERT	PUR	BLACK
1	CABLE, 22AWG, 300V, 105°	TPE JACKET	YELLOW

EC NO: IPG2019-0189 DRWN: RSTONE 2018/11/01 CHKD: C CHRAST 2018/11/07 APPR: BWOODMAN2018/11/30 RELEASED	DESCRIPTION REV	QUALITY SYMBOL	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
		▽=0	mm INCH	IN/MM	---	INCH	
		∇=0	4 PLACES ±--- ±---	DRAWN BY DATE	TITLE		
			3 PLACES ±--- ±---	CHECKED BY DATE			
		2 PLACES ±--- ±---	APPROVED BY DATE				
		1 PLACE ±--- ±---	BWOODMAN 2018/11/30				
		ANGULAR ±---°	MATERIAL NO.				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE P/N CHART				
			SIZE C	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

**MIC CABLE ASSY**  
**M12 MALE 90 DEG**  
**22AWG, TPE, YELLOW**

**MOLEX INCORPORATED**

DOCUMENT NO. **SD-120065-115** SHEET NO. **1 OF 1**