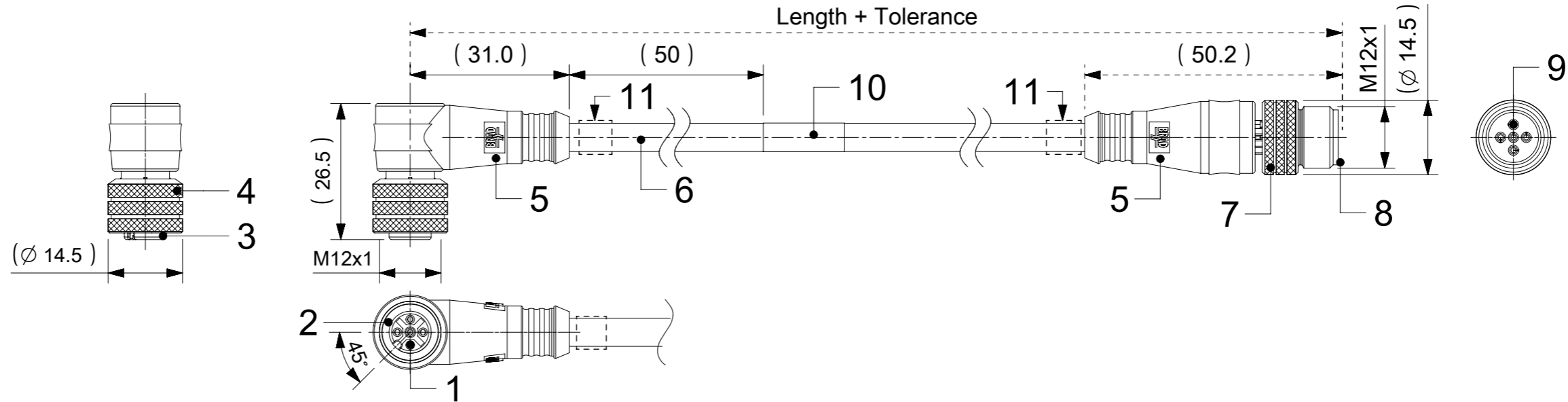


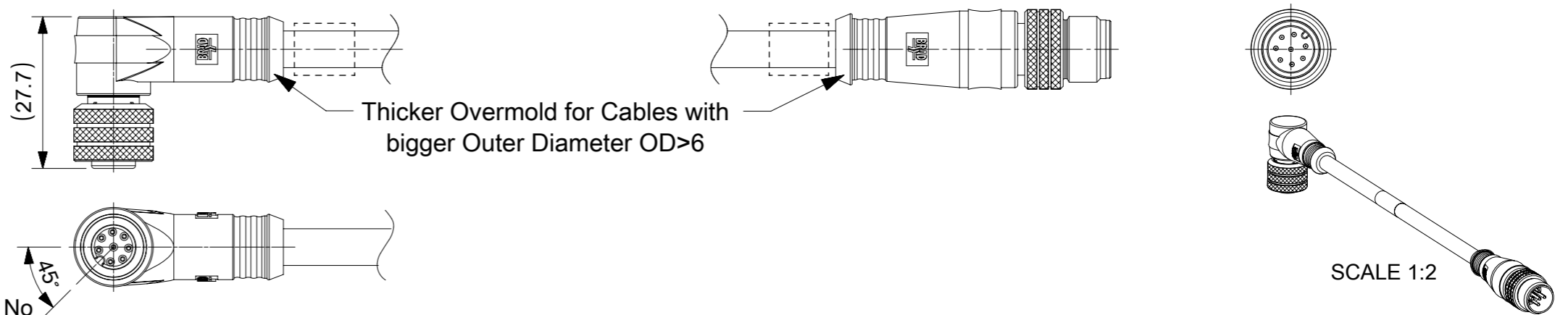
FEMALE PLUG M12 90° ANGLED TO MALE PLUG M12 STRAIGHT



NOTES:

- RATED VOLTAGE: 3, 4 contacts 250V per IEC 60664
5 contacts 60V per IEC 60664
5 contacts 250V per UL 2238
8 contacts 30V per IEC 60664
- RATED CURRENT: 3, 4, 5 contacts 4A
8 contacts 2A
- PROTECTION CLASS: IP 67
- TEMPERATURE: -25°C / +85°C

* FOR CABLES Ixx USE PRINTING ON THE CABLE IN THE SAME MEASUREMENT LIKE FOR LABEL - ENGINEERING No



CONTACTS POSITION FRONT VIEW:

	3 CONTACTS		4 CONTACTS		5 CONTACTS		8 CONTACTS	
FEMALE								
MALE								
CONNECTIONS	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
11	SEE PART LIST	ID CARRIER	PVC	TRANSPARENT
10	1	LABEL YELLOW	VINYL	---
	-	PRINTING FOR CABLES Ixx	---	---
9	3 / 4 / 5 / 8	CONTACT MALE	SEE PART LIST	SELECTIVE Au OVER Ni
8	1	INSERT MALE BLACK	SEE PART LIST	---
7	1	COUPLING NUT MALE	SEE PART LIST	---
6	-	CABLE	SEE SHEET 2	---
5	-	OVERMOLDING BLACK	SEE PART LIST	---
4	1	COUPLING NUT FEMALE	SEE PART LIST	---
3	1	INSERT FEMALE BLACK	SEE PART LIST	---
2	1	O-RING RED	FPM	---
1	3 / 4 / 5 / 8	CONTACT FEMALE	SEE PART LIST	SELECTIVE Au OVER Ni

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:	
▲/▲ = 0	mm	SCALE	1:1	
▽/▽ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)			
▽/▽ = 0	ANGULAR TOL ± 1.0°			
DIVISIONAL SYMBOLS	4 PLACES	±	EC NO: 638771	
	3 PLACES	±	DRWN: PDZIECIOL	2020/06/02
	2 PLACES	± 0.05	CHK'D: DSTACHOWIAK	2020/06/03
	1 PLACE	± 0.3	APPR: DSTACHOWIAK	2020/06/03
	0 PLACES	± 0.5	INITIAL REVISION:	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES
			A3-SIZE	120066
		MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
		1200660973	GENERAL MARKET	1 OF 4

ENGINEERING NO. - NUMERICAL CODE (Available parts see PART LIST table. Other parts available upon request).

8 8 X 0 X 1 X X X X X X X X

OPTIONS

88=Micro-Change
M12x1
Double ended

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

Heads style:
031=Plug Female 90°
to Plug Male Straight
021=Plug Female 90°
to Plug Male Straight
with Female
Coupling Nut

Cable type: See Table

Units:
M=Meter
C=Centimeter

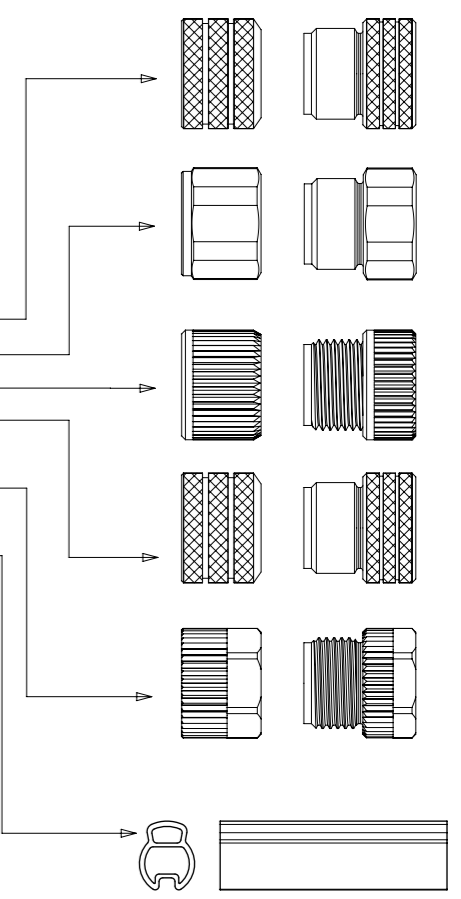
Length
Examples:
005=0.5 unit
010=1 unit
100=10 units

Coupling Nut:
Blank (Standard)=Knurled Brass Ni Plated
1=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 SW13

H= 2 pcs. of I/D Carrier PVC Transparent
(Cables Ixx & P82 always with 2 pcs. of
I/D Carrier even if no H in Engineering No.)

Overmold color:
Blank (Standard)=Black TPU
Blank=Yellow TPU for cables
A09, S19, S20, S26
Blank=Yellow TPE-E for cables
K03, K05
A=Grey / G=Black / Y=Yellow

**COUPLING NUT
FEMALE MALE**



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
B02	4	18AWG	PUR YELLOW	UL 20549	I/II A/B 80°C/300V	-	-	-	-
I03	3 / 4 / 5	0.34mm ²	PVC CEI GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
I20	3 / 4	0.34mm ²	PVC CEI GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	YES
I26	5	0.34mm ²	PVC CEI GREY	-	-	-30°C to +70°C	-5°C to +70°C	-	YES
K03	4	18AWG	TPE YELLOW	UL ITC or PLC	I/II A/B 90°C/300V	max 105°C	-	-	-
K05	3 / 4 / 5	22AWG	TPE YELLOW	UL ITC or PLC	I/II A/B 90°C/300V	max 105°C	-	-	-
P82	3 / 4 / 5	0.34mm ²	PUR IRR ORANGE	-	-	-50°C to +105°C, >5xO.D.	-40°C to +105°C, >7.5xO.D.	-	-
S20	3 / 4 / 5	0.34mm ²	PVC YELLOW	UL 2661/1731	C22.2 II A 105°C/300V	-30°C to +105°C	-	-	YES
E02	3 / 4 / 5 / 8	0.25mm ²	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 ²	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.	-	-
H09	3 / 4 / 5	0.34mm ²	PUR BLACK LSOH	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	-
P03	3 / 4 / 5	0.34mm ²	PUR / PVC BLACK	-	-	-30°C to +80°C, >7xO.D.	-5°C to +80°C, >15xO.D.	-	-
H08	8	0.25mm ²	PUR BLACK LSOH	UL 21198/10493	UL 21198/10493	-40°C to +80°C, >5xO.D.	-25°C to +80°C, >10xO.D.	2 000 000 cycles, Temp max 60°C	-
P02	8	0.25mm ²	PUR / PVC BLACK	-	-	-30°C to +80°C, >7xO.D.	-5°C to +80°C, >15xO.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: $\sqrt{A} = 0$, $\sqrt{E} = 0$, $\sqrt{V} = 0$

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

SCALE: 1:1
DIMENSION UNITS: mm

GENERAL TOLERANCES (UNLESS SPECIFIED): ANGULAR TOL $\pm 1.0^\circ$

CURRENT REV DESC:

EC NO: 638771
DRWN: PDZIECIOL 2020/06/02
CHK'D: DSTACHOWIAK 2020/06/03
APPR: DSTACHOWIAK 2020/06/03

INITIAL REVISION:
DRWN: JMARSZALEK 2016/10/06
APPR: RSILLER 2016/12/08

molex

CSE M12 XP AC FE RA MA STR XM DE

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER: 1200660973
DOC TYPE: PSD
DOC PART: 000
REVISION: A5

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS


THIRD ANGLE PROJECTION

DRAWING: A3-SIZE
SERIES: 120066
MATERIAL NUMBER: SEE SHEET 3, 4
CUSTOMER: GENERAL MARKET
SHEET NUMBER: 2 OF 4

Pos.	Part No.	Engineering No.	Cable Length
143	1200070140	883031P03M003	0.3m
144	1200070141	883031P03M006	0.6m
145	1200070142	883031P03M010	1m
146	1200668324	883031P03M010G	1m
147	1200071121	883031P03M010H	1m
148	1200070143	883031P03M020	2m
149	1200668325	883031P03M020G	2m
150	1200668753	883031P03M020H	2m
151	1200070144	883031P03M030	3m
152	1200668326	883031P03M030G	3m
153	1200070145	883031P03M050	5m
154	1200668520	883031P03M070	7m
155	1200070146	883031P03M100	10m
156	1200070507	884031E03M003	0.3m
157	1200070508	884031E03M006	0.6m
158	1200070509	884031E03M010	1m
159	1200668361	884031E03M015	1.5m
160	1200070511	884031E03M020	2m
161	1200070512	884031E03M030	3m
162	1200669260	884031E03M030H	3m
163	1200070904	884031E03M050	5m
164	1200071157	884031E03M060	6m
165	1200071278	884031E03M100	10m
166	1200072365	884031E03M1501	15m
167	1200072011	884031E03M200	20m
168	1200668669	884031H09M006	0.6m
169	1200668846	884031H09M008	0.8m
170	1200668210	884031H09M009	0.9m
171	1200668484	884031H09M010	1m
172	1200668848	884031H09M013	1.3m
173	1200668488	884031H09M015	1.5m
174	1200668845	884031H09M018	1.8m
175	1200668212	884031H09M020	2m
176	1200668847	884031H09M021	2.1m
177	1200668215	884031H09M030	3m
178	1200668670	884031H09M050	5m
179	1200668671	884031H09M100	10m
180	1200070526	884031P03M003	0.3m
181	1200070527	884031P03M006	0.6m
182	1200060056	884031P03M010	1m
183	1200060057	884031P03M020	2m
184	1200070529	884031P03M030	3m
185	1200071187	884031P03M050	5m
186	1200072012	884031P03M100	10m
187	1300288001	885031D12M020	2m
188	1200668658	885031E02M020	2m
189	1200668610	885031E02M050	5m
190	1200668660	885031E02M100	10m

Pos.	Part No.	Engineering No.	Cable Length
191	1200668339	885031E03M006	0.6m
192	1200668189	885031E03M010	1m
193	1200668278	885031E03M020	2m
194	1200668340	885031E03M030	3m
195	1200668279	885031E03M050	5m
196	1200668653	885031E03M070	7m
197	1200668348	885031E03M100	10m
198	1200668761	885031E03M150	15m
199	1200669229	885031H09C250	25m
200	1200668512	885031H09M006	0.6m
201	1200668496	885031H09M010	1m
202	1200668513	885031H09M020	2m
203	1200668514	885031H09M030	3m
204	1200668515	885031H09M050	5m
205	1200668516	885031H09M100	10m
206	1200073085	885031P03M006	0.6m
207	1200668188	885031P03M010	1m
208	1200072376	885031P03M0105	1m
209	1200070917	885031P03M020	2m
210	1200668091	885031P03M025	2.5m
211	1200070919	885031P03M030	3m
212	1200668273	885031P03M050	5m
213	1200073086	885031P03M100	10m
214	1200070434	884021E03M020	2m
215	1200072575	888031P02M030	3m
216	1200072708	888031P02M060	6m
217	1200658319	888031H08M050	5m
218	1200661620	888031P02M020	2m
219	1200661626	888031P02M010	1m
220	1200668673	888031E02M0041	0.4m
221	1200668849	888031P02M150	15m
222	1200656208	888031H08C250	2.5m
223	1200656209	888031H08M005	0.5m
224	1200656210	888031H08M008	0.8m
225	1200656211	888031H08M012	1.2m
226	1200656212	888031H08M015	1.5m
227	1200070057	883021E03M006	0.6m
228	1200070058	883021E03M020	2m
229	1200070439	884021P03M006	0.6m
230	1200070440	884021P03M010	1m
231	1200070441	884021P03M020	2m
232	1200070442	884021P03M030	3m
233	1200070870	883021P03M050	5m
234	1200072191	883021E03M030	3m
235	1200072198	883021E03M050	5m
236	1200665038	884021E03M050	5m
237	1200668061	884021E03M006	0.6m
238	1200668219	884021E03M030	3m

Pos.	Part No.	Engineering No.	Cable Length
239	1200668673	888031E02M0041	0.4m
240	1200669541	884031P03M015	1.5m
241	1200669556	885031P03M015	1.5m
242	1200661046	885031K03M010	1m
243	1200661047	885031K03M020	2m
244	1200661049	885031K03M040	4m
245	1200661050	885031K03M050	5m
246	1200661769	884031K05M150	15m

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:						
	$\nabla_A = 0$ $\nabla_E = 0$ $\nabla_V = 0$	DIMENSION UNITS: mm SCALE: 1:1 GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL $\pm 1.0^\circ$ 4 PLACES \pm 3 PLACES \pm 2 PLACES ± 0.05 1 PLACE ± 0.3 0 PLACES ± 0.5						EC NO: 638771 DRWN: PDZIECIOL 2020/06/02 CHK'D: DSTACHOWIAK 2020/06/03 APPR: DSTACHOWIAK 2020/06/03	CSE M12 XP AC FE RA MA STR XM DE PRODUCT CUSTOMER DRAWING
DIVISIONAL SYMBOLS	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING: A3-SIZE	SERIES: 120066	MATERIAL NUMBER: SEE PART LIST	CUSTOMER: GENERAL MARKET	DOCUMENT NUMBER: 1200660973 DOC TYPE: PSD DOC PART: 000 REVISION: A5	SHEET NUMBER: 4 OF 4

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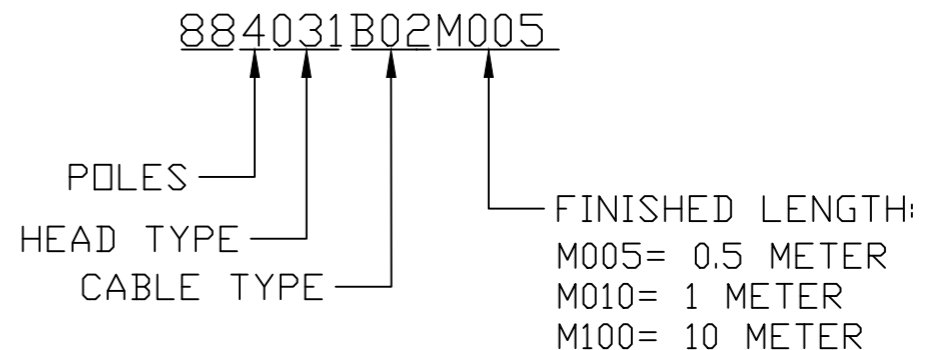
FRONT VIEW - FEMALE INSERT CONFIGURATION CHART

FRONT VIEW - MALE INSERT CONFIGURATION CHART

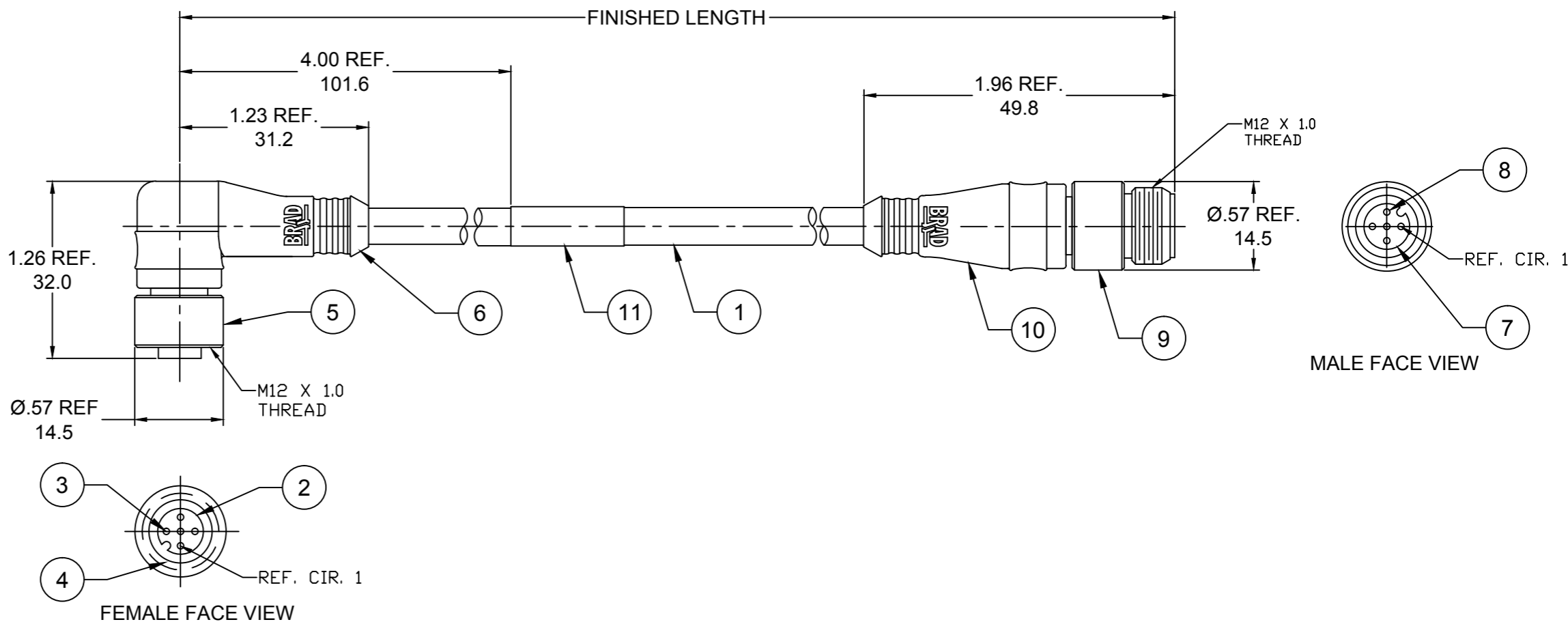
FRONT VIEW - FEMALE INSERT CONFIGURATION CHART			FRONT VIEW - MALE INSERT CONFIGURATION CHART		
3 POLE	4 POLE	5 POLE	3 POLE	4 POLE	5 POLE
1 BROWN 2 NOT USED 3 BLUE 4 BLACK 5 NOT USED	1 BROWN 2 WHITE 3 BLUE 4 BLACK 5 NOT USED	1 BROWN 2 WHITE 3 BLUE 4 BLACK 5 GRAY	1 BROWN 3 BLUE 4 BLACK	1 BROWN 2 WHITE 3 BLUE 4 BLACK	1 BROWN 2 WHITE 3 BLUE 4 BLACK 5 GRAY

PART NUMBER LEGEND

884031B02M005



- NOTES:
 1. MATERIAL: AS NOTED
 2. FINISH: AS NOTED
 3. ELECTRICAL:
 VOLTAGE: 250V
 CURRENT: 4A
 4. TEMP RATING: -20° TO +80°C
 5. PROTECTION: IP67 (WHEN MATED)



11	WRAP LABEL	VINYL	BLACK/YELLOW
10	OVERMOLD (MALE)	PUR	YELLOW
9	COUPLING NUT (MALE)	BRASS	TEFLON/NICKEL
8	CONTACT PIN	COPPER ALLOY	GOLD PLATED
7	MALE INSERT	PUR	BLACK
6	OVERMOLD (90D FEMALE)	PUR	YELLOW
5	COUPLING NUT (FEMALE)	BRASS	TEFLON/NICKEL
4	O-RING	VITON	RED
3	CONTACT SOCKET	COPPER ALLOY	GOLD PLATED
2	FEMALE INSERT	PUR	BLACK
1	CABLE, 18 AWG, 4 COND	PUR JACKET	YELLOW
ITEM	DESCRIPTION	MATERIAL	FINISH

RELEASED	EC NO: IPG2017-0018	DRWN: RSTONE	2016/07/12	CHKD: K COX	APPR: TWOLDEGE	2016/08/19
A	REV	DESCRIPTION	QUALITY SYMBOLS			
			$\nabla = 0$ $\triangle C = 0$			

GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	
		IN/MM	
		mm	INCH
4 PLACES	±---	±---	±---
3 PLACES	±---	±---	±---
2 PLACES	±0.13	±.01	---
1 PLACE	±0.3	±---	---
ANGULAR ±2°			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			

DRAWN BY		DATE	
RSTONE		2016/07/12	
CHECKED BY		DATE	
K COX		---	
APPROVED BY		DATE	
TWOLDEGE		2016/08/19	
MATERIAL NO.			
-			

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
---	INCH		
M12 CABLE ASSY MALE STR / FEMALE 90D 18AWG PUR HI-FLEX			
MOLEX INCORPORATED		DOCUMENT NO.	SHEET NO.
		SD-120066-063	1 OF 1
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

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