

# MALE PLUG M12 STRAIGHT



**NOTES:**

RATED VOLTAGE: 3, 4 contacts 250V

5 contacts 60V

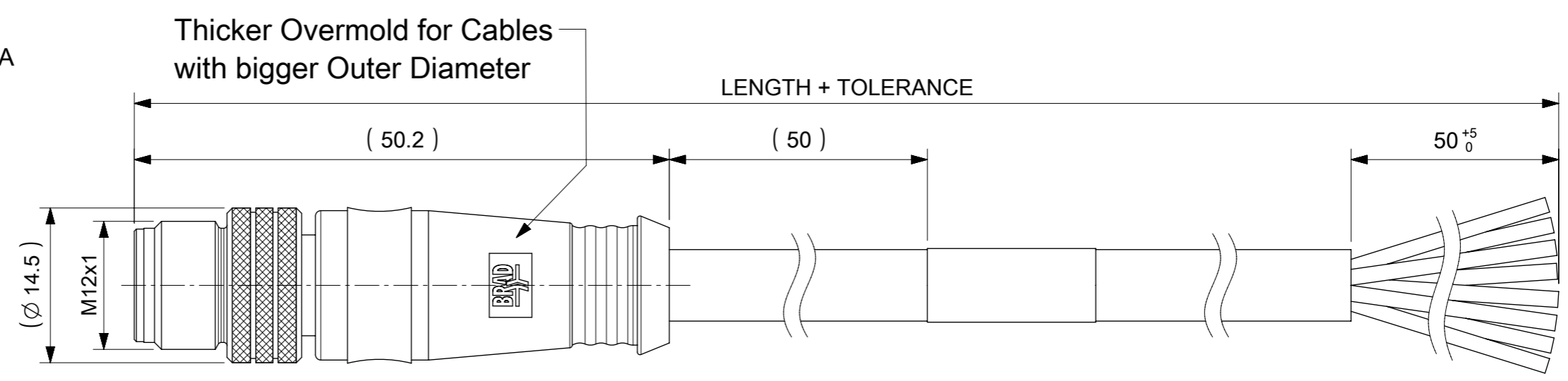
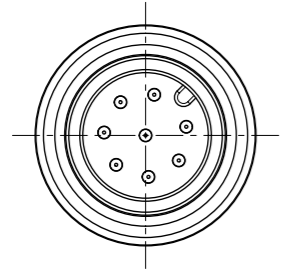
8 contacts 30V

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**

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

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 ± 0.15  
3 PLACES ± 0.10  
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



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DIMENSION UNITS: mm SCALE: 1:1

CURRENT REV DESC: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871.

**molex**

CSE M12 XP AC MA STR XM SE UNSH

PRODUCT CUSTOMER DRAWING

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

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION


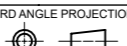
DRAWING: A3-SIZE  
SERIES: 120065  
MATERIAL NUMBER: SEE TABLE  
CUSTOMER: GENERAL MARKET  
SHEET NUMBER: 2 OF 4

# PART LIST

No.	Part No.	Engineering No.	Cable Length	No.	Part No.	Engineering No.	Cable Length	No.	Part No.	Engineering No.	Cable Length	No.	Part No.	Engineering No.	Cable Length
1	1200060046	804006E03M120	12m	36	1200062596	805006E03M003	0.3m	71	1200652158	805006P03M100	10m	106	1200658731	804006H09M040	4m
2	1200060047	804006P03M050	5m	37	1200062631	805006P03M120	12m	72	1200655011	805006P03M005	0.5m	107	1200658732	804006H09M050	5m
3	1200060240	803006E03M020	2m	38	1200062799	805006E03M010	1m	73	1200655051	805006E03M006	0.6m	108	1200658733	804006H09M100	10m
4	1200060241	803006E03M050	5m	39	1200062830	804006E03M0205	2m	74	1200658055	803006P03M003	0.3m	109	1200658741	805006H09M010	1m
5	1200060242	803006E03M100	10m	40	1200062877	804006E03M0505	5m	75	1200658092	805006P03M010	1m	110	1200658742	805006H09M015	1.5m
6	1200060256	803006P03M002	0.2m	41	1200062920	804006E03M1005	10m	76	1200658109	808006P02M003	0.3m	111	1200658743	805006H09M020	2m
7	1200060257	803006P03M020	2m	42	1200063018	803006P03M0303	3m	77	1200658209	805006E03M0061	* 0.6m	112	1200658744	805006H09M030	3m
8	1200060260	803006P03M030	3m	43	1200063077	804006E02M005	0.5m	78	1200658247	803006H09M100	10m	113	1200658745	805006H09M040	4m
9	1200060261	803006P03M050	5m	44	1200063470	804006E03M010H	1m	79	1200658248	803006H09M050	5m	114	1200658746	805006H09M050	5m
10	1200060558	804006E03M006	0.6m	45	1200063472	804006P03M200	20m	80	1200658463	804006P03M150	15m	115	1200658747	805006H09M100	10m
11	1200060559	804006E03M010	1m	46	1200063731	805006P03M0065	0.6m	81	1200658500	805006E03M1001	10m	116	1200658784	804006E03M0101H	1m
12	1200060560	804006E03M020	2m	47	1200063732	804006E03M0501	5m	82	1200658518	804006E03M0201H	2m	117	1200658785	804006E03M1001H	10m
13	1200060561	804006E03M030	3m	48	1200063733	804006E03M1001	* 10m	83	1200658519	804006E03M0501H	5m	118	1200658876	804006E03M150	15m
14	1200060562	804006E03M050	5m	49	1200063856	804006E03M1501	* 15m	84	1200658526	803006E03M005	0.5m	119	1200658881	803006E03M050G	5m
15	1200060563	804006E03M100	10m	50	1200063941	804006P03M0401	4m	85	1200658542	804006E03M070	7m	120	1200658888	804006E03M020H	2m
16	1200060570	804006P03M020	2m	51	1200063953	805006E03M035	3.5m	86	1200658546	808006E02M050	5m	121	1200658890	804006H09M003	0.3m
17	1200060571	804006P03M030	3m	52	1200063969	804006E03M2001	** 20m	87	1200658565	803006E03M010	1m	122	1200658892	803006H09M003	0.3m
18	1200060572	804006P03M100	10m	53	1200064160	803006P03M005	0.5m	88	1200658566	803006E03M040	4m	123	1200658893	804006E03M050H	5m
19	1200060667	805006E03M020	2m	54	1200064231	804006E03M2501	* 25m	89	1200658571	804006E03M040	4m	124	1200658895	804006H09M200	20m
20	1200060668	805006E03M030	3m	55	1200064240	804006P03M070	7m	90	1200658576	808006E02M010	1m	125	1200658897	805006E03M200	20m
21	1200060680	805006P03M020	2m	56	1200064251	804006E03M003	0.3m	91	1200658612	803006P03M040	4m	126	1200658913	805006P03M030	3m
22	1200060682	805006P03M050	5m	57	1200064252	804006E03M005	0.5m	92	1200658613	803006P03M100	10m	127	1200659034	804006E02M050	5m
23	1200061345	805006E03M050	5m	58	1200064261	804006P03M011	1.1m	93	1200658653	803006H09M010	1m	128	1200659036	804006E02M070	7m
24	1200061611	803006E03M150	15m	59	1200064347	804006P03M007	0.7m	94	1200658654	803006H09M015	1.5m	129	1200659037	804006E02M100	10m
25	1200061633	804006P03M010	1m	60	1200064353	803006E03M003	0.3m	95	1200658655	803006H09M020	2m	130	1200659041	808006E02M005	0.5m
26	1200061853	803006P03M010	1m	61	1200064393	804006P03M020G	2m	96	1200658656	803006H09M030	3m	131	1200659109	804006E02M020	2m
27	1200061855	804006P03M006	0.6m	62	1200064464	803006P03M005G	0.5m	97	1200658657	803006H09M040	4m	132	1200659111	803006E02M050	5m
28	1200062017	803006E03M030	3m	63	1200065002	805006P03M0201	2m	98	1200658659	808006H08M015	1.5m	133	1200659141	805006H09M200	20m
29	1200062082	805006P03M060	6m	64	1200650964	808006P02M020	2m	99	1200658660	808006H08M020	2m	134	1200659142	805006H09M300	30m
30	1200062122	804006E03M0201	* 2m	65	1200650967	808006P02M040	4m	100	1200658661	808006H08M030	3m	135	1200659145	805006E03M300	30m
31	1200062209	805006E03M100	10m	66	1200650968	808006P02M050	5m	101	1200658663	808006H08M050	5m	136	1200659149	805006H09M005	0.5m
32	1200062351	803006E03M0505	5m	67	1200650969	808006P02M100	10m	102	1200658727	804006H09M010	1m	137	1200659154	804006P03M100Y	10m
33	1200062352	803006E03M1005	10m	68	1200651763	808006P02M030	3m	103	1200658728	804006H09M015	1.5m	138	1200659185	805006E03M080	8m
34	1200062426	804006E03M200	20m	69	1200652141	804006P03M040	4m	104	1200658729	804006H09M020	2m	139	1200659186	804006E03M060	6m
35	1200062560	808006P02M005	0.5m	70	1200652157	805006P03M040	4m	105	1200658730	804006H09M030	3m	140	1200659190	804006P03M250	25m

**NOTES:**

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

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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°	PRODUCT CUSTOMER DRAWING								
4 PLACES	±	EC NO: 732259	2022/12/20							
3 PLACES	±	DRWN: SANTHN	2022/12/21							
2 PLACES	± 0.05	CHK'D: GGA	2022/12/21							
1 PLACE	± 0.3	APPR: GGA	2022/12/21							
0 PLACES	± 0.5	INITIAL REVISION:		DOCUMENT NUMBER						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION		DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER	DOC TYPE	DOC PART	REVISION
				A3-SIZE	120065	1200659185	GENERAL MARKET	PSD	000	A11
				SEE PART LIST		GENERAL MARKET		3 OF 4		

DOCUMENT STATUS	P1	RELEASE DATE	2022/12/21	07:37:46
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# PART LIST


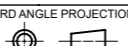
No.	Part No.	Engineering No.	Cable Length
141	1200659191	804006P03M300	30m
142	1200659192	804006P03M350	35m
143	1200659193	804006P03M400	40m
144	1200659194	804006E03M250	25m
145	1200659195	804006E03M300	30m
146	1200659196	804006E03M350	35m
147	1200659197	804006E03M400	40m
148	1200659198	804006E03M450	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
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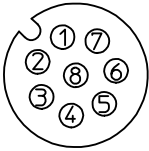
No.	Part No.	Engineering No.	Cable Length
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No.	Part No.	Engineering No.	Cable Length
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NOTES:  
 \* - Part No. with Yellow PVC overmolding  
 \*\* - Part No. with Black PVC overmolding

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				
4 PLACES	±	DRWN: SANTHN	2022/12/21		1200659185				
3 PLACES	±	CHK'D: GGA	2022/12/21		PSD 000 A11				
2 PLACES	± 0.05	APPR: GGA	2022/12/21		REVISION				
1 PLACE	± 0.3	INITIAL REVISION:			SHEET NUMBER				
0 PLACES	± 0.5	DRWN: JMARSZALEK	2016/01/12		4 OF 4				
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			

# 8 POLE MM



FEMALE INSERT 3P  
VIEW FROM FRONT SIDE

Pin	WIRE COLOR	Wire color
1	WHITE	WH
2	BROWN	BN
3	GREEN	GN
4	YELLOW	YE
5	GREY	GY
6	PINK	PK
7	BLUE	BU
8	RED	RD

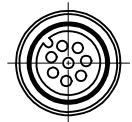
**Tablica tolerancji dlugosci**  
Table of length tolerances

Powyzej Over	Do-wlacznie Up to and including	Tolerancja (+) Tolerance
0	305	+19
305	915	+45
915	1830	+56
1830	3660	+89
3660	7320	+165
7320	14640	+317
14640	30500	+610
30500	>	+2% dlugosci of length

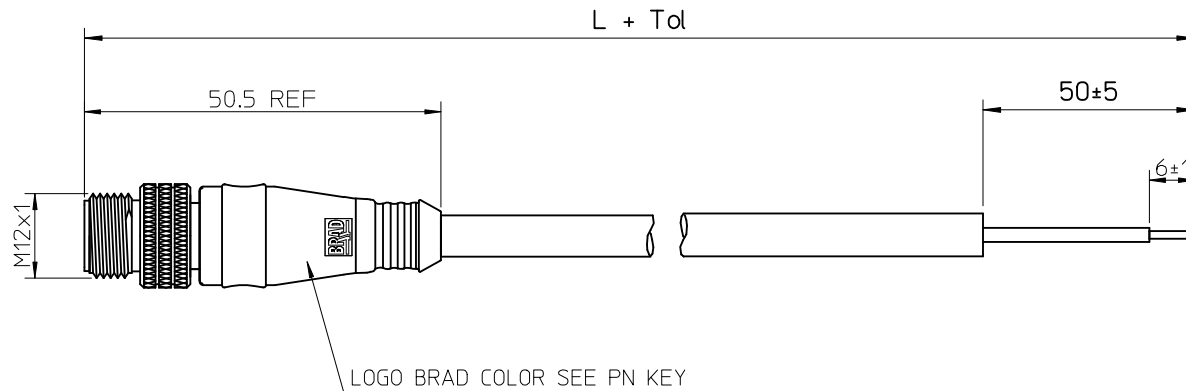
## PART No MATRIX

8 0 8 0 0 6 X X X M X X X X X OVERMOULD COLOR

8-Micro Change  
 0-Portable  
 8-3 Core  
 0-4 Core  
 0-5 Core  
 6-006+ Male straight  
 X-H08 - UL Listed LSQH Black PUR 0.25mm<sup>2</sup> (24AWG)  
 X-P02 - 24AWG BLACK PUR CABLE  
 X-E02 - CABLE PVC BLACK 0.25mm<sup>2</sup>  
 M-Metres  
 F-Feet  
 X-LENGTH 020-2 METRES  
 X-050-5 METRES  
 X-200-20 METRES  
 X-OVERMOULD COLOR  
 Blank=BLACK (Standard)  
 A=GREY  
 Y=YELLOW  
 Coupling Nut Material  
 Blank-Standard  
 1-Stainless Steel  
 5-3mm



VIEW FROM FRONT SIDE



<b>DRAWING UPDATE</b> EC NO: IPG2013-0156 DRWN:HWALCZAK 2012/07/03 CHKD: APPR:MIWASIECZKO 2012/10/11	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>		SCALE ---	DESIGN UNITS METRIC	FIRST ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES	± ---	± ---	HWALCZAK	2012/02/10	CSE M12 8P AC MA STR PUR XM SE UNSH			
		3 PLACES	± ---	± ---	CHECKED BY	DATE	MATERIAL NO.			
	2 PLACES	± ---	± ---	JMARSZALEK	2012/02/16	DOCUMENT NO.				
	1 PLACE	± ---	± ---	APPROVED BY	DATE	SHEET NO.				
	ANGULAR ± ---°		MDYSZEWSKA	2012/02/16	MOLEX INCORPORATED SD-120065-001 1 OF 1					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
A1	REV			A3						