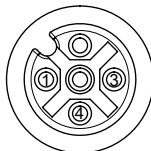
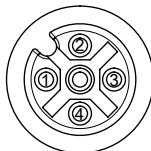


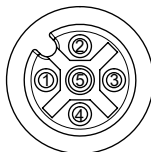
FACE VIEWS



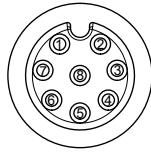
PIN	WIRE COLOR
1	BROWN
2	-
3	BLUE
4	BLACK



PIN	WIRE COLOR
1	BROWN
2	WHITE
3	BLUE
4	BLACK



PIN	WIRE COLOR
1	BROWN
2	WHITE
3	BLUE
4	BLACK
5	GY or GN-YE



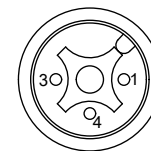
PIN	WIRE COLOR
1	WHITE
2	BROWN
3	GREEN
4	YELLOW
5	GREY
6	PINK
7	BLUE
8	RED

## BILL OF MATERIALS

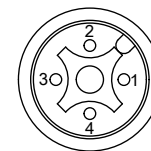
11	X	ID CARRIER (SEE MATRIX)	PVC	-
10	1	STANDARD WRAP LABEL YE	VINYL	-
9	1	INSERT M12 MA XP BK	ELASTOLLAN	-
8	1	INSERT M12 FE XP BK	ELASTOLLAN	-
7	1	NUT M12 MA HEX	BRASS	NICKEL PLATED
6	1	NUT M12 FE HEX	BRASS	NICKEL PLATED
5	1	GASKET RD	FPM	-
4	X	CONTACT FEMALE	BRONZE	GOLD OVER NICKEL PLATED
3	X	CONTACT MALE	CuNi2Si	GOLD OVER NICKEL PLATED
2	-	MOULDING MATERIAL	TPU	-
1	-	CABLE (SEE MATRIX)	-	-
ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH

RELEASE STATUS	P1	RELEASE DATE	22.08.2016	11:01:26
----------------	----	--------------	------------	----------

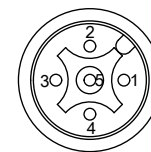
### FACE VIEWS



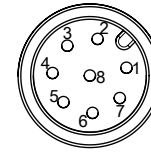
PIN	WIRE COLOR
1	BROWN
2	-
3	BLUE
4	BLACK



PIN	WIRE COLOR
1	BROWN
2	WHITE
3	BLUE
4	BLACK



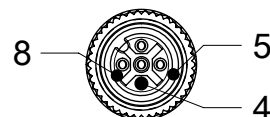
PIN	WIRE COLOR
1	BROWN
2	WHITE
3	BLUE
4	BLACK
5	GY or GN-YE



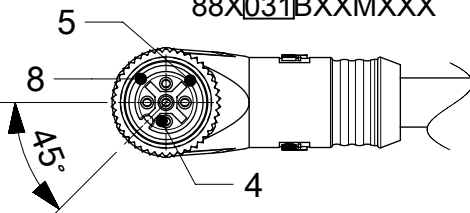
PIN	WIRE COLOR
1	WHITE
2	BROWN
3	GREEN
4	YELLOW
5	GREY
6	PINK
7	BLUE
8	RED

L + TOL. - SEE MATRIX  
(SHEET 2)

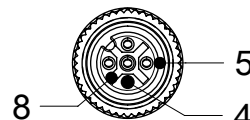
FEMALE STRAIGHT - MALE STRAIGHT  
88X030BXXMXXX



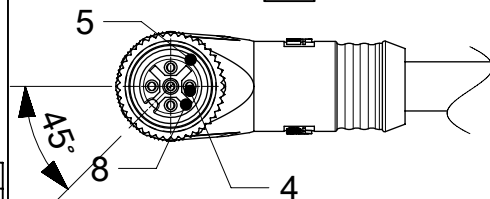
FEMALE RIGHT ANGEL - MALE STRAIGHT  
88X031BXXMXXX



FEMALE STRAIGHT - MALE RIGHT ANGEL  
88X032BXXMXXX



FEMALE RIGHT ANGLE - MALE RIGHT ANGLE  
88X033BXXMXXX



VIEW FROM THE FRONT SIDE  
FEMALE 5P

30±5

1 10 11 2 7

TYPE OF NUT AND OVERMOULD COLOR SEE MATRIX

2 x ID CARRIER IF IN MATRIX IS H OR CABLE B36

1 10 11 2 7

TYPE OF NUT AND OVERMOULD COLOR SEE MATRIX

1 10 11 2 7

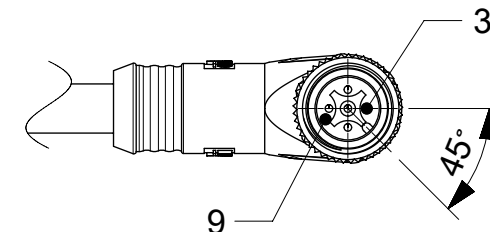
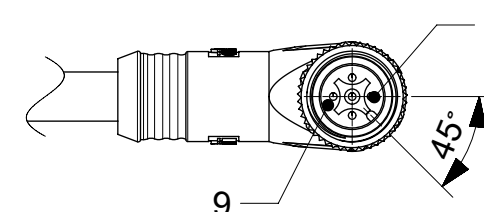
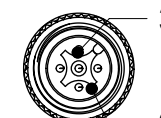
2 x ID CARRIER IF IN MATRIX IS H OR CABLE B36

1 10 11 2 7

TYPE OF NUT AND OVERMOULD COLOR SEE MATRIX

1 10 11 2 7

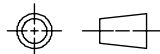
TYPE OF NUT AND OVERMOULD COLOR SEE MATRIX



VIEW FROM THE FRONT SIDE  
MALE 5P

NOTE:

1. BRAD LOGO - ONLY IN ONE SIDE ON THE OVERMOULD.

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															
EC NO: 107719 DRWN: MMATLA CHK'D: APPR: MIWASIECZKO	2016/06/23	2016/08/22	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS MM		SCALE 1:1		<div>molex®</div> <div>CSE M12 XP AC FE XXX TPU MA XXX XM DE</div>						
			ANGULAR TOL ±		DRWN BY MMATLA		DATE 2016/06/23								
			4 PLACES ±		CHK'D BY		DATE		PRODUCT CUSTOMER DRAWING						
			3 PLACES ±		APPR BY MIWASIECZKO		DATE 2016/08/22								
			2 PLACES ±		DRAWING SIZE A3		THIRD ANGLE PROJECTION 								
			1 PLACE ±												
			0 PLACES ±						SERIES 120065		MATERIAL NUMBER SEE MATRIX (SH 2)		CUSTOMER		
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS						DOCUMENT NUMBER 1200659548		DOC TYPE PSD		DOC PART 00P		SHEET NUMBER 1 OF 4
A	REV														

**PART No MATRIX - NUMERICAL CODE** (AVAILABLE PARTS SEE PART LIST TABLE. OTHERS PARTS AVAILABLE UPON REQUEST).

OPTIONS /

\*

H = 2 SZT. I/D CARRIER  
COUPLIN NUT:  
BLANK = KNU / HEX  
7 = TEFLON KNU  
5 = PLASTIC NYLON  
OVERMOULD:  
BLANK = BLACK  
A = GREY  
G = BLACK  
Y = YELLOW

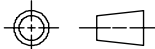
88X030B33MXXXXX		
MOLEX PN	ENGINEERING No	CABLE LENGTH [mm]
1200669223	884030B33M010	1000
1200669224	884030B33M020	2000
1200669225	884030B33M030	3000
1200669226	884030B33M050	5000
1200669247	885030B33M020	2000
1200669248	885030B33M100	10000
1200669249	885030B33M200	20000
1200669250	884030B33M005	500
1200669251	884030B33M100	10000
1200669252	884030B33M200	20000
1200669253	885030B33M030	3000
1200669254	885030B33M050	5000
1200669255	885030B33M300	30000
1200669256	884030B33M300	30000
1200669257	885030B33M005	500
1200669258	885030B33M010	1000

88X030B41MXXXXXX		
MOLEX PN	ENGINEERING No	CABLE LENGTH [mm]
1200668870	888030B41M038	3800
1200668895	888030B41M006	600
1200668896	888030B41M010	1000
1200668897	888030B41M020	2000
1200668898	888030B41M030	3000
1200668899	888030B41M050	5000
1200668900	888030B41M100	10000
1200669177	888030B41M090	9000

88X030B42MXXXXX		
MOLEX PN	ENGINEERING No	CABLE LENGTH [mm]
1200659548	885030B42M150	15000
1200659549	885030B42M200	20000
1200668823	885030B42M006	600
1200668824	885030B42M010	1000
1200668825	885030B42M020	2000
1200668826	885030B42M030	3000
1200668827	885030B42M050	5000
1200668828	885030B42M100	10000

88X030B49MXXXXX		
MOLEX PN	ENGINEERING No	CABLE LENGHT [mm]
1200669017	888030B49M015Y	1500
1200669112	888030B49M038Y	3800

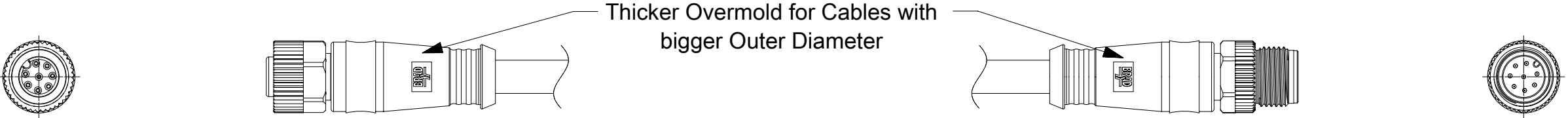
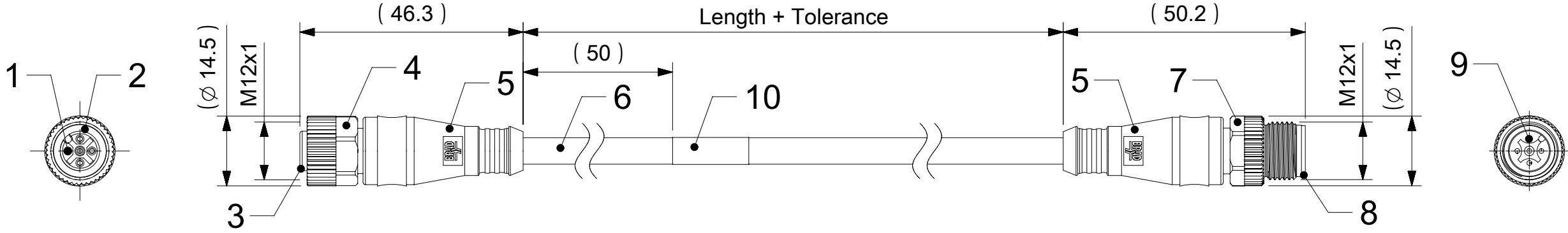
TABLE OF LENGTH TOLERANCES		
OVER	UP TO AND INCLUDING	TOLERANCE
0	1000	+40 0
1000	5000	+60 0
5000	10000	+80 0
10000	20000	+140 0
20000	30000	+160 0
30000	>	+1% OF LENGTH

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															
EC NO: 107719 DRWN: MMATLA CHK'D: APPR: MIWASIECZKO	2016/06/23	2016/08/22	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION UNITS		SCALE		<div>molex®</div>						
					MM		1:1								
	ANGULAR TOL ± °		DRWN BY		DATE		CSE M12 XP AC FE XXX TPU MA XXX XM DE								
			MMATLA		2016/06/23										
	4 PLACES ±		CHK'D BY		DATE										
			3 PLACES ±		APPR BY		DATE		PRODUCT CUSTOMER DRAWING						
	1 PLACE ±				MIWASIECZKO		2016/08/22								
	0 PLACES ±		DRAWING SIZE		THIRD ANGLE PROJECTION		SERIES		MATERIAL NUMBER		CUSTOMER				
			A3				120065		SEE MATRIX						
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		A		REV		DOCUMENT NUMBER				DOC TYPE		DOC PART		SHEET NUMBER
1200659548							PSD		00P		2 OF 4				

E	88X030B30MXXXXX			88X030B36MXXXXX			88X031B30MXXXXX			88X031B36MXXXXX																
	MOLEX PN	ENGINEERING No	CABLE LENGTH [mm]	MOLEX PN	ENGINEERING No	CABLE LENGTH [mm]	MOLEX PN	ENGINEERING No	CABLE LENGTH [mm]	MOLEX PN	ENGINEERING No	CABLE LENGTH [mm]														
	1200659666	885030B30M005	500	1200668859	884030B36M0507Y	5000	1200668829	884031B30M006	600	1200668861	884031B36M0507Y	5000														
	1200659667	885030B30M025	2500	1200668860	884030B36M1007Y	10000	1200668830	884031B30M010	1000	1200668862	884031B36M1007Y	10000														
	1200668817	884030B30M006	600	1200669019	884030B36M0057Y	500	1200668831	884031B30M020	2000	1200669047	884031B36M0057Y	500														
	1200668818	884030B30M010	1000	1200669020	884030B36M0107Y	1000	1200668832	884031B30M030	3000	1200669048	884031B36M0107Y	1000														
	1200668819	884030B30M020	2000	1200669021	884030B36M0157Y	1500	1200668833	884031B30M050	5000	1200669049	884031B36M0157Y	1500														
	1200668820	884030B30M030	3000	1200669022	884030B36M0207Y	2000	1200668834	884031B30M100	10000	1200669050	884031B36M0207Y	2000														
	1200668821	884030B30M050	5000	1200669023	884030B36M0307Y	3000	1200668877	883031B30M006	600	1200669051	884031B36M0307Y	3000														
	1200668822	884030B30M100	10000	1200669024	884030B36M0407Y	4000	1200668878	883031B30M010	1000	1200669052	884031B36M0407Y	4000														
D	1200668863	884030B30M070	7000	1200669025	884030B36M0607Y	6000	1200668879	883031B30M020	2000	1200669053	884031B36M0607Y	6000														
	1200668889	883030B30M006	600	1200669026	884030B36M0807Y	8000	1200668880	883031B30M030	3000	1200669054	884031B36M0807Y	8000														
	1200668890	883030B30M010	1000	1200669027	884030B36M1207Y	12000	1200668881	883031B30M050	5000	1200669055	884031B36M1207Y	12000														
	1200668891	883030B30M020	2000	1200669028	884030B36M1507Y	15000	1200668882	883031B30M100	10000	1200669056	884031B36M1507Y	15000														
	1200668892	883030B30M030	3000	1200669029	884030B36M2007Y	20000	1200668997	885031B30M006	600	1200669057	884031B36M2007Y	20000														
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	1200668894	883030B30M100	10000	1200669031	884030B36M3007Y	30000	1200668999	885031B30M020	2000	1200669059	884031B36M3007Y	30000														
	1200668913	884030B30M150	15000	1200669032	885030B36M0057Y	500	1200669000	885031B30M030	3000	1200669060	885031B36M0057Y	500														
	1200668914	884030B30M200	20000	1200669033	885030B36M0107Y	1000	1200669001	885031B30M050	5000	1200669061	885031B36M0107Y	1000														
	1200668915	884030B30M250	25000	1200669034	885030B36M0207Y	2000	1200669002	885031B30M100	10000	1200669062	885031B36M0207Y	2000														
C	1200668916	884030B30M300	30000	1200669035	885030B36M0307Y	3000	1200669241	885031B30M0067	600	1200669063	885031B36M0307Y	3000														
	1200668991	885030B30M006	600	1200669036	885030B36M0407Y	4000	1200669243	885031B30M0207	2000	1200669064	885031B36M0407Y	4000														
	1200668992	885030B30M010	1000	1200669037	885030B36M0507Y	5000	88X031B41MXXXXX			1200669065	885031B36M0507Y	5000														
	1200668993	885030B30M020	2000	1200669038	885030B36M0607Y	6000	MOLEX PN	ENGINEERING No	CABLE LENGHT [mm]	1200669066	885031B36M0607Y	6000														
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	1200669142	884030B30M0105	1000	1200669042	885030B36M1507Y	15000	1200668886	888031B41M030	3000	1200669070	885031B36M1507Y	15000														
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	1200669144	884030B30M025	2500	1200669044	885030B36M2007Y	20000	1200668888	888031B41M100	10000	1200669072	885031B36M2007Y	20000														
B	1200669145	885030B30M015	1500	1200669045	885030B36M2507Y	25000	88X031B42MXXXXX			1200669073	885031B36M2507Y	25000														
	1200669157	884030B30M002	200	1200669046	885030B36M3007Y	30000	MOLEX PN	ENGINEERING No	CABLE LENGTH [mm]	1200669074	885031B36M3007Y	30000														
	1200669181	884030B30M040	4000	1200669140	885030B36M8507Y	85000	1200668835	885031B42M006	600	<div><div></div><div>molex®</div><div>CSE M12 XP AC FE XXX TPU MA XXX XM DE</div></div>																
	1200669182	884030B30M060	6000						1200668836				885031B42M010	1000												
	1200669242	885030B30M0107	1000						1200668837				885031B42M020	2000												
													1200668838	885031B42M030	3000											
													1200668839	885031B42M050	5000											
													1200668840	885031B42M100	10000											
													PRODUCT CUSTOMER DRAWING													
													SERIES	MATERIAL NUMBER	CUSTOMER											
										120065	SEE MATRIX (SH 2)															
										DOCUMENT NUMBER		DOC TYPE	DOC PART	SHEET NUMBER												
										1200659548		PSD	00P	3 OF 4												
9			8			7			6			5			4			3			2			1		
9			8			7			6			5			4			3			2			1		



FEMALE PLUG M12 STRAIGHT TO MALE PLUG M12 STRAIGHT



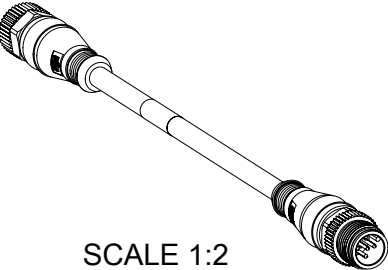
A4

NOTES:

CONTACT CURRENT RATING: 3-5 POLES 4A  
8 POLES 2A  
VOLTAGE RATING: 3-4 POLES 250V  
5 POLES 60V DC  
8 POLES 30V  
PROTECTION CLASS: IP 67  
TEMPERATURE: -25°C / +85°C

CONTACT POSITION FRONT VIEW:

3 POLES		4 POLES		5 POLES		5 POLES		8 POLES		
CABLE	B30, B55	B30, B33, B36, B55	B30, B33, B36, B55	B30, B33, B36, B55	B42	B41, B49				
FEMALE										
MALE										
CONNECTIONS	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE
	1	BROWN	1	BROWN	1	BROWN	1	BROWN	1	WHITE
	2	---	2	WHITE	2	WHITE	2	WHITE	2	BROWN
	3	BLUE	3	BLUE	3	BLUE	3	BLUE	3	GREEN
	4	BLACK	4	BLACK	4	BLACK	4	BLACK	4	YELLOW
	5	---	5	---	5	GREY	5	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

10	1	LABEL OR PRINTING	VINYL / ---	---
9	3 / 4 / 5 / 8	CONTACT M12 MALE	BRASS	SELECTIVE GOLD OVER NICKEL
8	1	INSERT MALE BLACK	TPU	---
7	1	COUPLING NUT MALE	BRASS	NICKEL
6	-	CABLE	SEE SHEET 2	---
5	-	OVERMOULDING BLACK	TPU	---
4	1	COUPLING NUT FEMALE	BRASS	NICKEL
3	1	INSERT FEMALE BLACK	PUR	---
2	1	ORING RED	FPM	---
1	3 / 4 / 5 / 8	CONTACT M12 FEMALE	BRASS	SELECTIVE GOLD OVER NICKEL
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				
SYMBOLS		CURRENT REV DESC: NOTES UPDATE		<div>molex</div>
DIMENSION UNITS		EC NO: 601410 DRWN: FDAFERNER 2018/07/13 CHK'D: RSILLER 2018/07/13 APPR: RSILLER 2018/07/13  INITIAL REVISION: DRWN: JMARSZALEK 2016/07/22 APPR: RSILLER 2016/08/29		
SCALE				
GENERAL TOLERANCES (UNLESS SPECIFIED)				
ANGULAR TOL ± 1.0 °		CSE M12 XP AC FE STR WSOR MA STR XM DE		
4 PLACES ±		PRODUCT CUSTOMER DRAWING		
3 PLACES ±		DOCUMENT NUMBER		
2 PLACES ± 0.05		1200668993		
1 PLACE ± 0.1		DOC TYPE		
0 PLACES ± 0.2		PSD		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DOC PART		
THIRD ANGLE PROJECTION		000		
DRAWING		REVISION		
A3-SIZE		A4		
SERIES		SHEET NUMBER		
120066		1 OF 3		
MATERIAL NUMBER		SEE SHEET 3		
CUSTOMER		GENERAL MARKET		

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

88X030XXXXXX

88=M12x1  
Double ended

Poles:  
3=3 Poles  
4=4 Poles  
5=5 Poles  
8=8 Poles

Heads style:  
030=Plug Female Straight  
to Plug Male Straight

Cable type: See Table

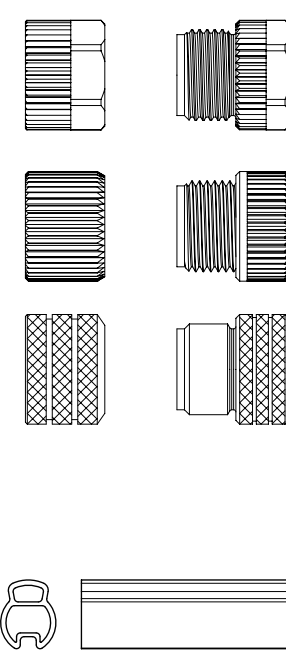
Units:  
M=Meter  
C=Centimeter  
T=10x Meter

Length  
Examples:  
005=0.5 units  
010=1 units  
020=1 units  
050=5 units  
100=10 units  
150=15 units  
200=20 units

Overmold color:  
Blank (Standard)=Black  
A=Grey / G=Black / Y=Yellow / R=Red  
  
Coupling Nut:  
Blank (Standard)=Knurled/Hex Brass, Ni Plated  
5=Knurled Derlin  
7=Knurled Brass Ni Plated, Teflon Coated  
  
H= 2 pcs. of I/D Carrier PVC Transparent  
(Cables lxx & P82 always with  
2 pcs. I/D Carrier)

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: TEMP. / BENDING RADIUS	DRAG CHAIN	CABLE PRODUCT SPECIFICATION	CABLE SPEC. DRAWING
B30	3 / 4 / 5	0.34mm²	TPU Black	UL 21215/758	C22.2 I/II A/B 80°/600V	-40°C to +90°C 5xO.D.	-25°C to +80°C 7.5xO.D.	-5°C to +60°C 7.5xO.D.	up to 5 000 000 cycles at temp 20°C	1552200001	SD-120209-001
B33	4 / 5	0.34mm²	TPU Gray								SD-120209-001
B36	4 / 5	0.34mm²	TPU Orange								SD-120209-001
B41	8	0.25mm²	TPU Black								SD-120209-006
B42	5	0.34mm²	TPU Black								SD-120209-001
B49	8	0.25mm²	TPU Orange								SD-120209-006
B55	3 / 4 / 5	0.34mm²	TPU Yellow								n/a

CABLE LENGTH TOLERANCES		
LENGTH	TOLERANCE	
shorter 1m	+40 mm	-0 mm
1m-5m	+60 mm	-0 mm
5m-10m	+80 mm	-0 mm
10m-20m	+140 mm	-0 mm
20m-30m	+160 mm	-0 mm
longer 30m	+1%	-0 mm

SYMBOLS

▽ = 0

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

DIMENSION UNITS

mm

SCALE

1:1

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ± 1.0 °

4 PLACES ±

3 PLACES ±

2 PLACES ± 0.05

1 PLACE ± 0.1

0 PLACES ± 0.2

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: NOTES UPDATE

EC NO: 601410

DRWN: FDAFERNER 2018/07/13

CHK'D: RSILLER 2018/07/13

APPR: RSILLER 2018/07/13

INITIAL REVISION:

DRWN: JMARSZALEK 2016/07/22

APPR: RSILLER 2016/08/29

THIRD ANGLE PROJECTION

DRAWING

SERIES

A3-SIZE

120066

molex

CSE M12 XP AC FE STR WSOR MA STR XM DE

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

1200668993

DOC TYPE

PSD

DOC PART

000

REVISION

A4

MATERIAL NUMBER

SEE SHEET 3

CUSTOMER

GENERAL MARKET

SHEET NUMBER

2 OF 3

DOCUMENT STATUS

P1

RELEASE DATE

2018/07/13 09:19:39

EDCBA

FORMAT: master-1b-prod-A3 REVISION: 11 DATE: 2018/01/18									
9	8	7	6	5	4	3	2	1	