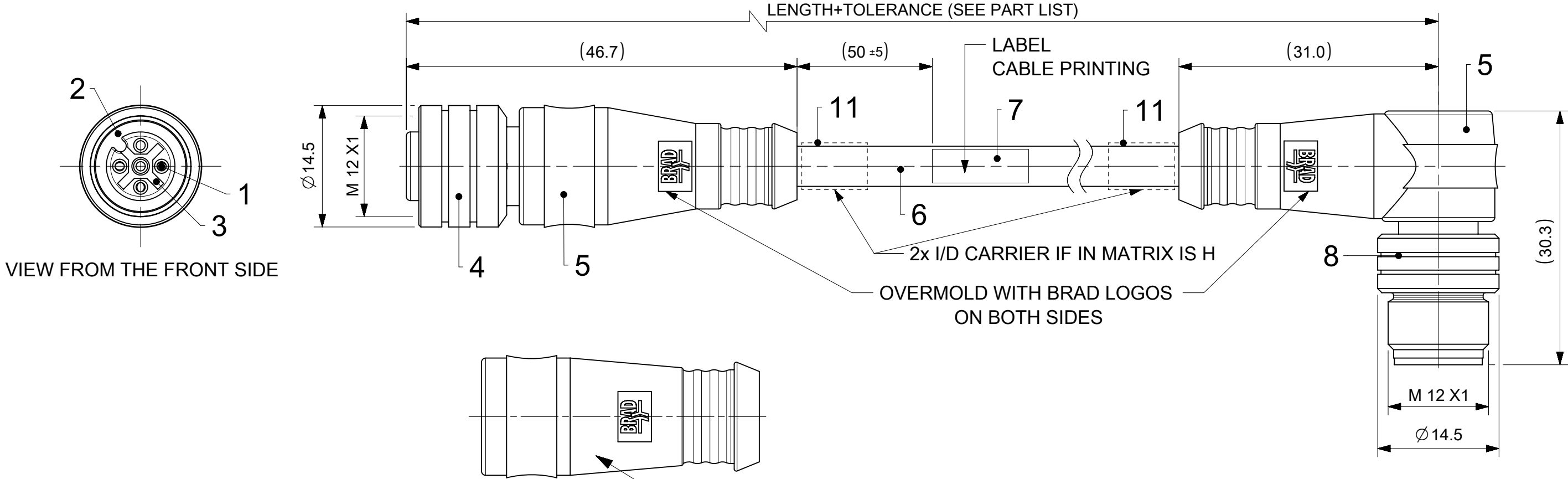


FEMALE PLUG M12 STRAIGHT TO MALE PLUG M12 90° ANGLED

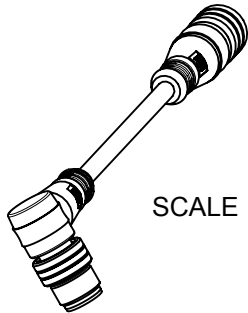


TECHNICAL SPECIFICATION:
CONTACT CURRENT RATING: 3-5 POLES 4A
8 POLES 2A
VOLTAGE RATING: 3-4 POLES 250V
5 POLES 60V DC
8 POLES 30V
PROTECTION CLASS: IP 67
TEMPERATURE: -25°C / +85°C

BILL OF MATERIAL

11	2 (SEE MATRIX)	ID CARRIER	PVC	TRANSPARENT
10	1	INSERT MALE	PUR	BLACK
9	3/4/5/8	CONTACT M12 MALE	BRASS	SELECTIVE GOLD OVER NICKEL
8	1	COUPLING NUT MALE	BRASS	NICKEL
7	1	LABEL	VINYL	YELLOW
6	-	CABLE	SEE MATRIX/ CABLE SPECIFICATION	---
5	-	OVERMOULD	TPU	SEE MATRIX
4	1	COUPLING NUT FEMALE	BRASS	NICKEL
3	1	INSERT FEMALE	PUR	BLACK
2	1	O-RING	FPM	RED
1	3/4/5/8	CONTACT M12 FEMALE	BRASS	SELECTIVE GOLD OVER NICKEL
ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH/COLOR

DOCUMENT STATUS	P1	RELEASE DATE	2023/12/25	13:30:36
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DIMENSION UNITS		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#514494			molex				
mm		2:1									
GENERAL TOLERANCES (UNLESS SPECIFIED)							CSE M12 XP AC FE STR MA RA XM				
ANGULAR TOL ± 1.0°											
4 PLACES ±											
3 PLACES ±				EC NO: 770993 DRWN: MADHAM5 2023/11/09 CHK'D: GGA 2023/12/25 APPR: GGA 2023/12/25			PRODUCT CUSTOMER DRAWING				
2 PLACES ± 0.05											
1 PLACE ± 0.3											
0 PLACES ± 0.5				INITIAL REVISION: DRWN: DSOPPIN 2018/09/27 APPR: RSILLER 2018/10/22			DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS							1200070026		PSD	000	A8
		THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER		CUSTOMER		SHEET NUMBER		
			A3-SIZE	120007	SEE PART LIST		GENERAL MARKET		1 OF 4		

10

9

8

7

6

5

4

3

2

1

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

88X032XXXXXX

88 = M12x1
Double ended

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

Heads style:
032 = Plugs FE Straight & Male 90°

Cable types:
E02=0.25mm² PVC Black
E03=0.34mm² PVC Black
E13=0.75mm² PVC Yellow
E52=0.34mm² PVC Grey(RAL 7001)
E57=0.34mm² PVC Grey(RAL 7001)
H09=0.34mm² PUR Black
H69=0.34mm² PUR Grey LSOH SCR
I02=0.25mm² PVC Grey CEI
I03=0.34mm² PVC Grey CEI
I20=0.25mm² PVC Grey CEI SCR DC
I26=0.34mm² PVC Grey CEI SCR AC
P02=0.25mm² PUR/PVC Black
P03=0.34mm² PUR/PVC Black
P08=0.25mm² PUR Yellow HIFLEX
P20=0.34mm² PUR Grey LSOH braid
P82=0.34mm² PUR orange irradiated DC
S20=0.34mm² PVC Yellow SJTO braid

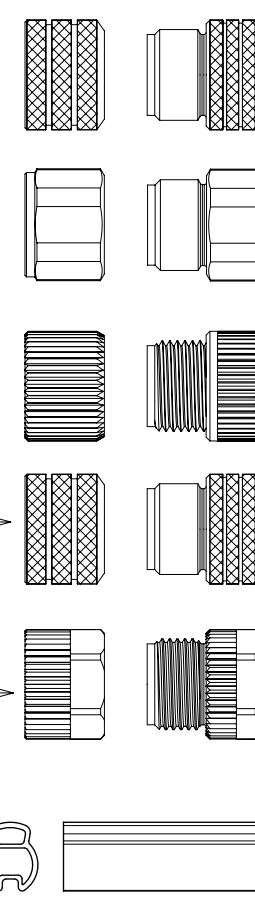
Units:
C = Centimeter
M = Meter
K = Kilometer
F = Feet

Length
Examples:
020 = 2 M
060 = 6 M
100 = 10 M

Overmold color:
Blank (Standard)=Black TPU
Blank=Yellow PVC for cables
A09, S19, S20, S26
Blank=Yellow TPE-E for cables
K03, K05
A=Grey / G=Black / Y=Yellow
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 lxx & P82 always with 2 pcs. of I/D Carrier even if no H in Engineering No.)

COUPLING NUT
FEMALE MALE



CABLE SPECIFICATION

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	0.25mm²	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	0.34mm²	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.	-	-
E52	4	0.34mm²	PVC GRAY	-	-	- 30 to + 70°C	- 5 to + 70°C	-	-
H09	3 / 4 / 5	0.34mm²	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	-
H69	4	0.2mm²	PUR LSOH	-	-	-	-40°C to +80°C	-	-
P02	3 / 4 / 5 / 8	0.25mm²	PUR / PVC BLACK	-	-	-30°C to +80°C, 7xO.D.	-5°C to +80°C, 15xO.D.	-	-
P03	3 / 4 / 5	0.34mm²	PUR / PVC BLACK	-	-	-30°C to +80°C, >7xO.D.	-5°C to +80°C, >15xO.D.	-	-
P82	4	0.34mm²	PUR IRR ORANGE	-	-	-50°C to +105°C,	-50°C to +105°C,	-	-
I03	4	0.34mm²	PVC GRAY	-	-	-30°C to +70°C	-5°C to +70°C	-	-
K03	4	AWG18	TPE YELLOW	ITC E195601 OR PLTC	AWM I/II A/B FT4 LL54185	-	-40°C to +105°C	-	-
K05	4	0.34mm²	TPE YELLOW	ITC E195601 OR PLTC	AWM I/II A/B FT4 LL54185	-	-40°C to +105°C	-	-
S20	4	0.34mm²	PVC YELLOW	UL 2661/1731	C22.2 AWM II	-30°C to +105°C	-40°C to +105°C	-	-

CABLE LENGTH TOLERANCE

OVER	UPTO AND INCULDING	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

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DIMENSION UNITS
mm

SCALE
1:1

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ± 1.0 °

4 PLACES ±

3 PLACES ±

2 PLACES ± 0.05

1 PLACE ± 0.3

0 PLACES ± 0.5

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#514494

EC NO: 770993
DRWN: MADHAM5
CHK'D: GGA
APPR: GGA

2023/11/09
2023/12/25
2023/12/25

INITIAL REVISION:
DRWN: DSOPPIN
APPR: RSILLER

2018/09/27
2018/10/22

THIRD ANGLE PROJECTION

DRAWING
A3-SIZE

SERIES
120007

DOCUMENT NUMBER
1200070026

MATERIAL NUMBER
SEE PART LIST

CUSTOMER
GENERAL MARKET

DOC TYPE
PSD

DOC PART
000

REVISION
A8

SHEET NUMBER
2 OF 4

DOCUMENT STATUS

P1

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2023/12/25 13:30:36

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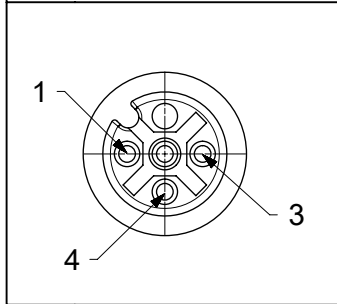
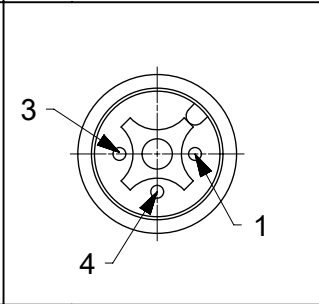
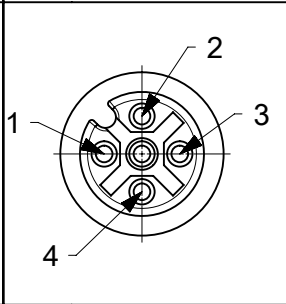
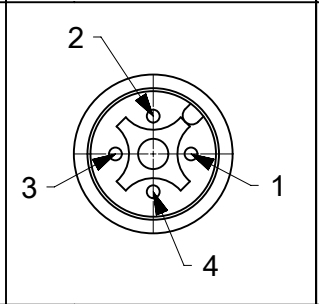
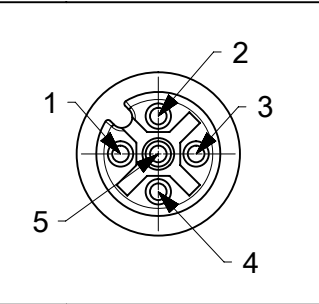
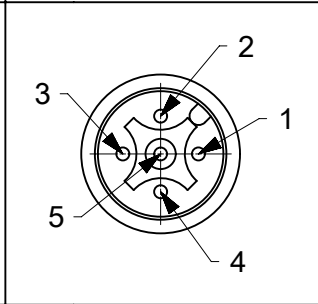
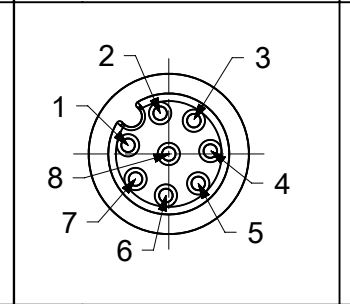
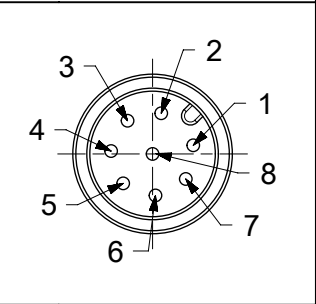
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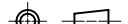
FORMAT: master-b-prod-A3

REVISION: J1

DATE: 2021/05/01

CONTACT POSITION FRONT VIEW:

3 POLES FEMALE		3 POLES MALE		4 POLES FEMALE		4 POLES MALE		5 POLES FEMALE		5 POLES MALE		8 POLES FEMALE		8 POLES MALE	
															
PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE	PIN	WIRE
1	BROWN	1	BROWN	1	BROWN	1	BROWN	1	BROWN	1	BROWN	1	WHITE	1	WHITE
2	-	2	-	2	WHITE	2	WHITE	2	WHITE	2	WHITE	2	BROWN	2	BROWN
3	BLUE	3	BLUE	3	BLUE	3	BLUE	3	BLUE	3	BLUE	3	GREEN	3	GREEN
4	BLACK	4	BLACK	4	BLACK	4	BLACK	4	BLACK	4	BLACK	4	YELLOW	4	YELLOW
5	-	5	-	5	-	5	-	5	GREY OR GREEN/YELLOW	5	GREY OR GREEN/YELLOW	5	GREY	5	GREY
CODING REQUIRED TO IEC 61076-2-101				CODING REQUIRED TO IEC 61076-2-101				CODING REQUIRED TO IEC 61076-2-101				6	PINK	6	PINK
												7	BLUE	7	BLUE
												8	RED	8	RED
												CODING REQUIRED TO IEC 61076-2-101			

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DIMENSION UNITS		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#514494						molex							
mm		1:1															
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: 770993 DRWN: MADHAM52023/11/09 CHK'D: GGA2023/12/25 APPR: GGA2023/12/25 INITIAL REVISION: DRWN: DSOPPIN2018/09/27 APPR: RSILLER2018/10/22													
ANGULAR TOL ± 1.0 °																	
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		SERIES		DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION	
						A3-SIZE		120007		1200070026		PSD		000		A8	
										MATERIAL NUMBER		CUSTOMER				SHEET NUMBER	
										SEE PART LIST		GENERAL MARKET				3 OF 4	

DOCUMENT STATUS	P1	RELEASE DATE	2023/12/25	13:30:36
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DIMENSION UNITS		SCALE		CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#514494				molex							
mm		1:1													
GENERAL TOLERANCES (UNLESS SPECIFIED)				EC NO: 770993 DRWN: MADHAM52023/11/09 CHK'D: GGA2023/12/25 APPR: GGA2023/12/25				CSE M12 XP AC FE STR MA RA XM							
ANGULAR TOL ± 1.0 °															
4 PLACES		±						PRODUCT CUSTOMER DRAWING							
3 PLACES		±													
2 PLACES		± 0.05													
1 PLACE		± 0.3		INITIAL REVISION: DRWN: DSOPPIN2018/09/27 APPR: RSILLER2018/10/22				DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION	
0 PLACES		± 0.5						1200070026		PSD		000		A8	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER	
						A3-SIZE		120007		SEE PART LIST		GENERAL MARKET		4 OF 4	