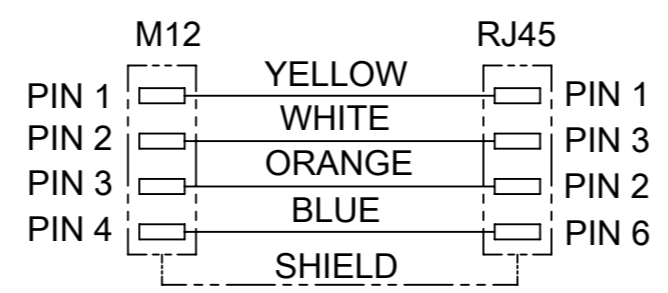


WIRING DIAGRAM



NOTES:

- ELECTRICAL DATA:  
MAX. VOLTAGE RATING 60 VDC  
MAX. CURRENT PER CONTACT 1.5 A
- ENVIRONMENTAL:  
OPERATING TEMPERATURE SEE SHEET 2  
INDEX OF PROTECTION RJ45: IP20  
INDEX OF PROTECTION M12: IP67
- FOR MORE INFORMATION SEE PRODUCT SPECIFICATION 1201080202 PS P00

BOM

ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH/COLOR
9	4	CONTACTS M12 MALE	BRASS	SELECTIVE GOLD
8	1	INSERT 4P MALE	PUR	BLACK
7	1	COUPLING NUT M12 MALE	BRASS	NICKEL
6	1	LABEL 50x69.8	VINYL	WHITE
5	-	CABLE	SEE SHEET 2	---
4	-	OVERMOLD	TPU	BLACK
3	1	SHIELD	BRASS	TIN
2	1	PLUG RJ45 TRANSPARENT	POLYCARBONATE	---
1	4 or 8	CONTACT RJ45 MALE	PHOSPHOR BRONZE	SELECTIVE GOLD

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

FUNCTIONAL SYMBOLS:  $\nabla/A = 0$ ,  $\nabla/E = 0$ ,  $\nabla/P = 0$

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

DIVISIONAL SYMBOLS: DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION:

DRAWING: A3-SIZE  
SERIES: 120108  
MATERIAL NUMBER: SEE SHEET 3  
CUSTOMER: GENERAL MARKET  
SHEET NUMBER: 1 OF 3

EC NO: 672185  
DRWN: MDHARMANTI 2021/06/22  
CHK'D: RSILLER 2021/09/20  
APPR: RSILLER 2021/09/20

INITIAL REVISION:  
DRWN: JMARSZALEK 2015/07/07  
APPR: RSILLER 2020/05/12

DOCUMENT NUMBER: 1201080256  
DOC TYPE: PSD  
DOC PART: 000  
REVISION: A5

**molex**  
CSE M12 RJ45 4P DC MA STR MA STR XM  
PRODUCT CUSTOMER DRAWING

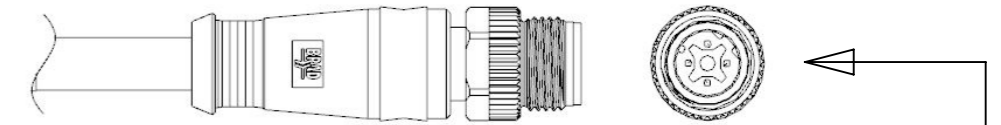
**NUMERICAL CODE** (Available parts see PART LIST table. Other parts available upon request).

**OPTIONS**

**E 1 6 A 0 6 0 X X M X X X X**

- E=Ethernet
- Heads:  
1=M12x1  
4P D-Code  
6=RJ45
- Wiring type
- Heads style:  
060=MA M12 STR  
/ RJ45 Plug STR
- Cable type:  
See cable table
- Units:  
M=Meter  
T=10x meter
- Length  
Examples:  
005=0.5 units  
010=1 units  
150=15 units
- H= 2 pcs. of I/D Carrier

FOR CABLE TYPE "12" & "16"  
KNURLED/HEXAGONAL NUT - 1202070090



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

CABLE TYPE	CABLE O.D.	APPLICATION	CROSS SECTION	CABLE JACKET	UL	TEMP. RANGE STATIC BENDING RADIUS STATIC	TEMP. RANGE DYNAMIC BENDING RADIUS DYNAMIC	CYCLES	ADDITIONAL INFORMATION
11	∅6.8mm	PROFINET TYPE C	22AWG	PUR GREEN	STYLE 20549	-40°C to +80°C / min.5xO.D.	-20°C to +70°C / min.7.5xO.D.	about 2M	-


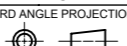
TABLE 2

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

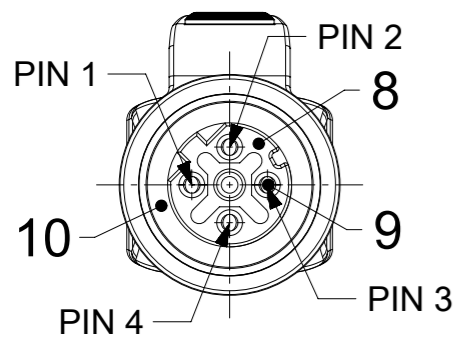
FUNCTIONAL SYMBOLS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: CABLE AND STDS UPDATED						
∇/A = 0	DIMENSION UNITS	SCALE							
∇/E = 0	mm	1:1							
∇/V = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)								
DIVISIONAL SYMBOLS	ANGULAR TOL ± 1.0 °		EC NO: 672185						
	4 PLACES ±	DRWN: MDHARMANTI 2021/06/22							
	3 PLACES ±	CHK'D: RSILLER 2021/09/20							
	2 PLACES ± 0.05	APPR: RSILLER 2021/09/20							
	1 PLACE ± 0.1	INITIAL REVISION:							
0 PLACES ± 0.2	DRWN: JMARSZALEK 2015/07/07		DOCUMENT NUMBER						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER	DOC TYPE	DOC PART	REVISION
			A3-SIZE	120108	1201080256	GENERAL MARKET	PSD	000	A5
					SEE SHEET 3				SHEET NUMBER
									2 OF 3

PART LIST

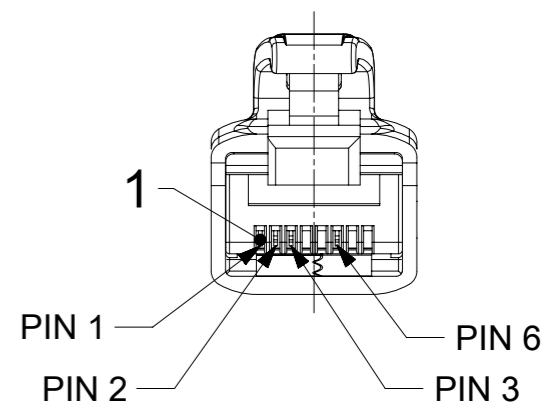
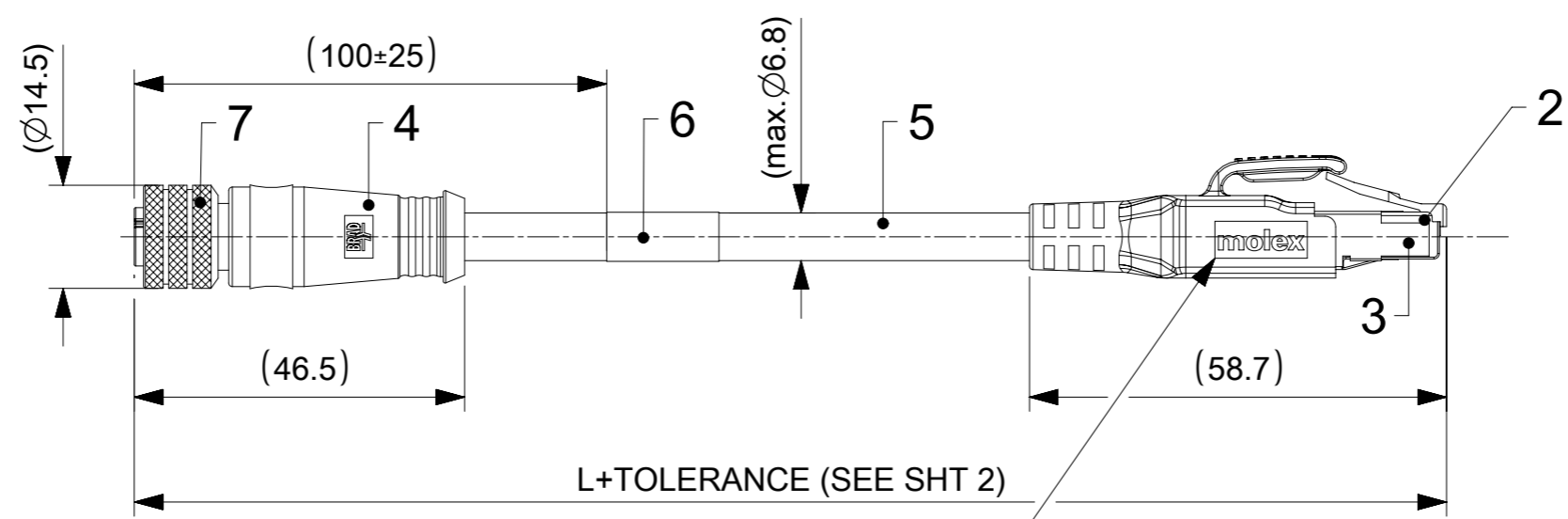
No.	Part No.	Engineering No.	L (Cable Length)
1	1201088255	E16A06011M002	0.2m
2	1201088120	E16A06011M005	0.5m
3	1201080256	E16A06011M010	1m
4	1201080203	E16A06011M020	2m
5	1201088121	E16A06011M030	3m
6	1201080289	E16A06011M040	4m
7	1201080257	E16A06011M050	5m
8	1201080285	E16A06011M060	6m
9	1201088122	E16A06011M070	7m
10	1201080286	E16A06011M080	8m
11	1201080290	E16A06011M090	9m
12	1201080258	E16A06011M100	10m
13	1201080291	E16A06011M120	12m
14	1201080292	E16A06011M140	14m
15	1201080259	E16A06011M150	15m
16	1201080293	E16A06011M180	18m
17	1201080260	E16A06011M200	20m
18	1201088123	E16A06011M230	23m
19	1201080261	E16A06011M250	25m
20	1201080262	E16A06011M300	30m
21	1201088388	E16A06011M350	35m
22	1201088199	E16A06011M400	40m
23	1201080263	E16A06011M500	50m
24	1201080294	E16A06011M700	70m
25	1201088196	E16A06011M900	90m
26	1201088200	E16A06011T100	100m

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: CABLE AND STDS UPDATED			
	$\nabla_A = 0$ $\nabla_B = 0$ $\nabla_C = 0$	DIMENSION UNITS: <b>mm</b> SCALE: <b>1:1</b>	GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL $\pm 1.0^\circ$			EC NO: 672185 DRWN: MDHARMANTI 2021/06/22 CHK'D: RSILLER 2021/09/20 APPR: RSILLER 2021/09/20
DIVISIONAL SYMBOLS	4 PLACES $\pm$	3 PLACES $\pm$	2 PLACES $\pm 0.05$	1 PLACE $\pm 0.1$	0 PLACES $\pm 0.2$	PRODUCT CUSTOMER DRAWING DOCUMENT NUMBER: <b>1201080256</b> DOC TYPE: PSD DOC PART: 000 REVISION: <b>A5</b>
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION 	DRAWING: <b>A3-SIZE</b> SERIES: <b>120108</b>	MATERIAL NUMBER: <b>SEE SHEET 3</b> CUSTOMER: <b>GENERAL MARKET</b>	SHEET NUMBER: <b>3 OF 3</b>

DOCUMENT STATUS	P1	RELEASE DATE	2021/09/20	12:58:27
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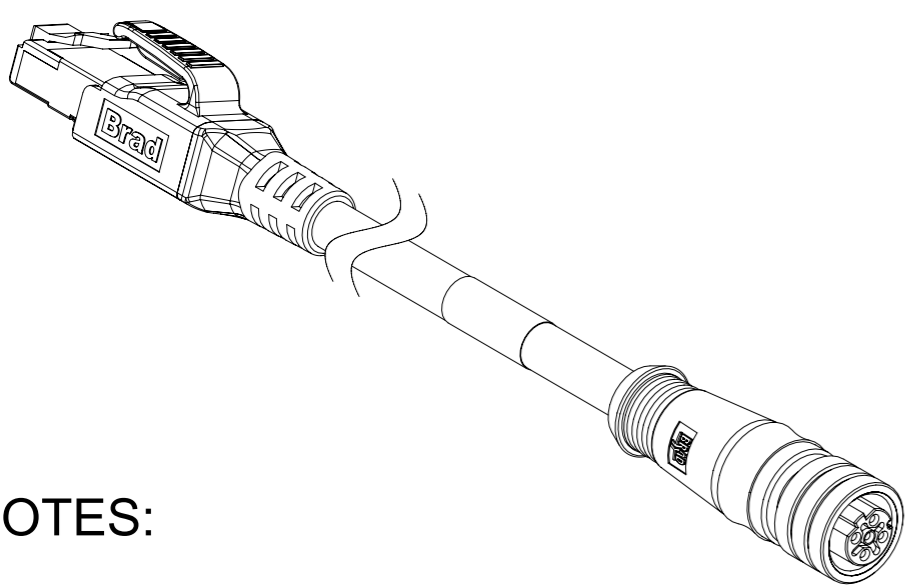
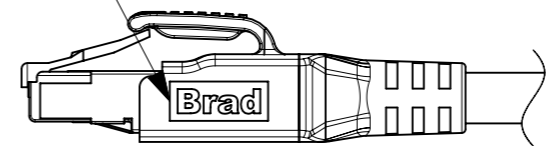


FRONT VIEW  
SCALE 2:1

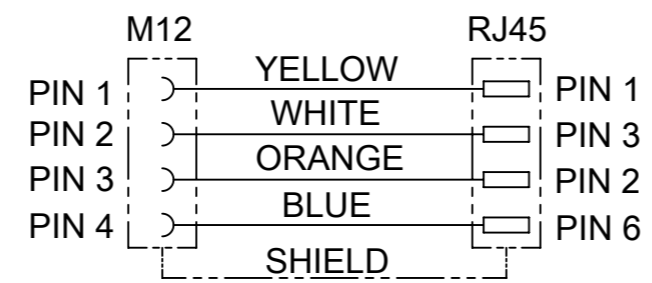


FRONT VIEW  
SCALE 2:1

BLACK OVERMOLD  
MOLEX LOGO ON ONE SIDE  
BRAD LOGO ON OTHER SIDE



WIRING DIAGRAM



BOM

ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH / COLOR
10	1	ORING RED	FPM	---
9	4	CONTACTS M12 MALE	BRASS	SELECTIVE GOLD
8	1	INSERT 4P FEMALE	PUR	BLACK
7	1	COUPLING NUT M12 FEMALE	BRASS	NICKEL
6	1	LABEL 50x69.8	VINYL	WHITE
5	-	CABLE	SEE SHEET 2	---
4	-	OVERMOLD	TPU	BLACK
3	1	SHIELD	BRASS	TIN
2	1	PLUG RJ45 TRANSPARENT	POLYCARBONATE	---
1	4 or 8	CONTACT RJ45 MALE	PHOSPHOR BRONZE	SELECTIVE GOLD

NOTES:

- ELECTRICAL DATA:  
MAX. VOLTAGE RATING 60 VDC  
MAX. CURRENT PER CONTACT 1.5 A
- ENVIRONMENTAL:  
OPERATING TEMPERATURE SEE SHEET 2  
INDEX OF PROTECTION RJ45: IP20  
INDEX OF PROTECTION M12: IP67
- FOR MORE INFORMATION SEE PRODUCT SPECIFICATION 1201080202 PS P00

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: 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  $\pm 0.5$

DIVISIONAL SYMBOLS: DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION:

DRAWING: A3-SIZE | SERIES: 120108 | MATERIAL NUMBER: SEE SHEET 2 | CUSTOMER: GENERAL MARKET | SHEET NUMBER: 1 OF 2

EC NO: 672185 | DRWN: SSM | 2021/06/23 | CHK'D: RSILLER | 2021/09/20 | APPR: RSILLER | 2021/09/20

INITIAL REVISION: DRWN: JMARSZALEK | 2016/02/25 | APPR: RSILLER | 2020/05/12

DOCUMENT NUMBER: 1201080264 | DOC TYPE: PSD | DOC PART: 000 | REVISION: B

**molex**

CSE M12 RJ45 4P DC FE STR MA STR XM

PRODUCT CUSTOMER DRAWING

**NUMERICAL CODE** (Available parts see PART LIST table. Other parts available upon request)

**OPTIONS**

**E 1 6 A 0 3 0 X X M X X X X**

E=Ethernet

Heads:  
1=M12x1  
4P D-Code  
6=RJ45

Wiring  
type

Heads style:  
030=FE M12 STR  
/ RJ45 Plug STR

Cable type:  
See cable table

Units:  
M=Meter

Length  
Examples:  
005=0.5 units  
010=1 units  
150=15 units

H= 2 pcs. of  
I/D Carrier

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

CABLE TYPE	CABLE O.D.	APPLICATION	CROSS SECTION	CABLE JACKET	UL	TEMP. RANGE STATIC BENDING RADIUS STATIC	TEMP. RANGE DYNAMIC BENDING RADIUS DYNAMIC	CYCLES	ADDITIONAL INFORMATION
11	6.8mm	PROFINET TYPE C	22AWG	PUR GREEN	STYLE 20549	-40°C to +80°C / min.5xO.D.	-20°C to +70°C / min.7.5xO.D.	up to 5 Mio	-
12	6.7mm	PROFINET TYPE C	22AWG	TPU BASED GREEN	STYLE 21215	-40°C to +80°C / min.5xO.D.	-25°C to +80°C / min.15xO.D.	about 2M, min.15xO.D., -5°C to +60°C	WSOR
16	6.5mm	-	24AWG	TPU BASED TEAL	STYLE 21215	-40°C to +80°C / min.6xO.D.	-20°C to +50°C	1M, min.10xO.D. / 2M min.20xO.D. @20°C	WSOR

**PART LIST**

No.	MOLEX P/N	ENGINEERING NO.	L (CABLE LENGTH)
1	1201080264	E16A03011M010	1m
2	1201080265	E16A03011M020	2m
3	1201080266	E16A03011M050	5m
4	1201088741	E16A03011M900	90m
5	1201088261	E16A03011M300	30m
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
19			
20			
21			
22			
23			
24			
25			

**CABLE LENGTH TOLERANCES**

LENGTH	TOLERANCE
0 m-1 m	+40 mm
>1 m-5 m	+60 mm
>5 m-10 m	+80 mm
>10 m-20 m	+140 mm
>20 m-30 m	+160 mm
>30 m	+1% length

FUNCTIONAL SYMBOLS FA = 0 FE = 0 FV = 0	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	SCALE <b>1:1</b>	CURRENT REV DESC: CABLE AND STDS UPDATED		
	DIMENSION UNITS <b>mm</b>	GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL ± 1.0°	EC NO: 672185 DRWN: SSM CHK'D: RSILLER APPR: RSILLER		
DIVISIONAL SYMBOLS	4 PLACES ±	3 PLACES ±	2021/06/23	<b>molex</b>	
	2 PLACES ± 0.05	1 PLACE ± 0.3	2021/09/20		
	0 PLACES ± 0.5	INITIAL REVISION: DRWN: JMARSZALEK APPR: RSILLER	2021/09/20	CSE M12 RJ45 4P DC FE STR MA STR XM	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			2016/02/25	PRODUCT CUSTOMER DRAWING	
THIRD ANGLE PROJECTION			2020/05/12	DOCUMENT NUMBER <b>1201080264</b>	DOC TYPE DOC PART REVISION PSD 000 B
DRAWING <b>A3-SIZE</b>			SERIES <b>120108</b>	MATERIAL NUMBER SEE SHEET 2	CUSTOMER GENERAL MARKET
				SHEET NUMBER 2 OF 2	

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