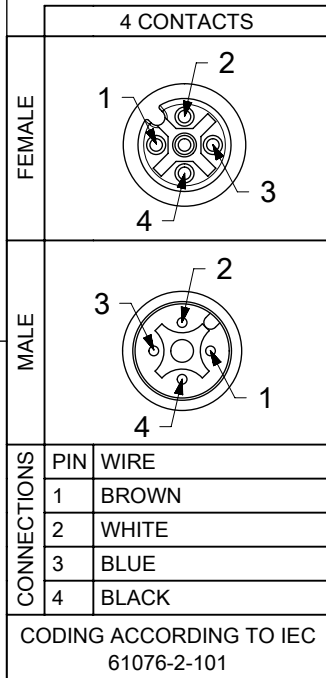


D



A



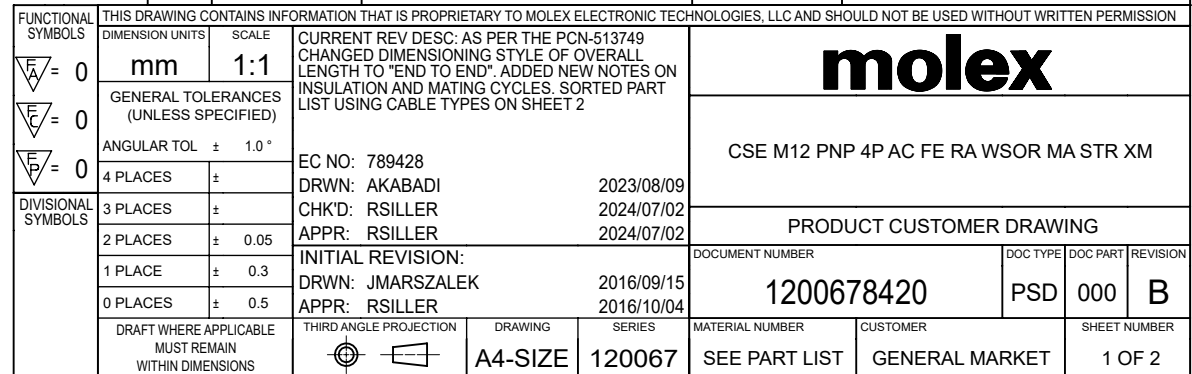
DOCUMENT STATUS	P1	RELEASE DATE	2024/07/02	09:18:08
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FEMALE M12 **MALE M12**

PNP WIRING

The diagram shows two vertical columns of pins. The left column is labeled 'FEMALE M12' and the right column is labeled 'MALE M12'. The left column has pins numbered 1, 4, 3, and 2 from top to bottom. The right column has pins numbered 1, 4, 3, and 2 from top to bottom. Wires connect the pins as follows: Pin 1 (Female) to Pin 1 (Male) labeled '+V BROWN'; Pin 4 (Female) to Pin 4 (Male) labeled 'BLACK'; Pin 3 (Female) to Pin 3 (Male) labeled '-V BLUE'; Pin 2 (Female) to Pin 2 (Male) labeled 'WHITE'. In the center, there are two LED symbols. The left LED is labeled 'LED YELLOW' and is connected between Pin 1 and Pin 3. The right LED is labeled 'LED GREEN' and is connected between Pin 4 and Pin 3. Arrows on the LED symbols point towards the right.

Female M12 Pin	Wiring Label	Male M12 Pin
1	+V BROWN	1
4	BLACK	4
3	-V BLUE	3
2	WHITE	2



ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH / COLOR
1	4	CONTACT M12 FEMALE	BRONZE	SELECTIVE GOLD OVER NICKEL
2	1	INSERT 4P FEMALE	PUR	BLACK
3	1	ORING	FPM	RED
4	1	COUPLING NUT FEMALE SW13	SEE SHEET 2	SEE SHEET 2
5	1	PCB PNP	---	---
6	-	OVERMOULDING	TPU	TRANSPARENT
7	-	CABLE	SEE SHEET 2	---
8	1	LABEL	VINYL	YELLOW
9	-	OVERMOULDING	TPU	BLACK
10	1	COUPLING NUT MALE SW13	SEE SHEET 2	SEE SHEET 2
11	4	CONTACT M12 MALE	COPPER	SELECTIVE GOLD OVER NICKEL
12	1	INSERT 4P MALE	TPU	BLACK
13	SEE SHEET 2	I/D CARRIER	PVC	TRANSPARENT

molex

CSE M12 PNP 4P AC FE RA WSOR MA STR XM

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER	DOC. TYPE	DOC. PART	REVISION
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1200678420

PSD

000

B

THIRD ANGLE PROJECTION

DRAWING

SERIES

	MATERIAL NUMBER
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	CUSTOMER
--	----------

SHEET NUMBER		

A4-SIZE

120067

SEE PART LIST

GENERAL MARKET

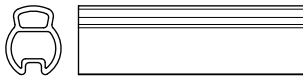
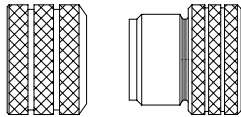
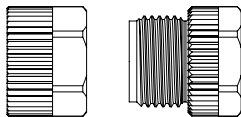
1 OF 2

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

OPTIONS

COUPLING NUTS

FEMALE MALE



88=M12x1
Double ended
Micro-Change

Contacts:
4=4 Contacts

Heads style:
0P7=Plug Female PNP 90°
to Plug Male Straight

Cable type: See Table

Units:
M=Meter

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

Overmold color:
Blank (Standard)=Black
Y=Yellow

Coupling Nut:
Blank (Standard)=Knurled/Hex Brass, Ni Plated
7=Knurled Brass Ni Plated, Teflon Coated

H= 2 pcs. of I/D Carrier PVC Transparent
(Cables B36 always with 2 pcs. I/D Carrier)

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	OTHER INFORMATION
B30	4	0.34mm²	TPU Based, 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	WSOR
B36	4	0.34mm²	TPU Based, Orange									

PART LIST

MOLEX PN	ENGINEERING No	L [mm]	MOLEX PN	ENGINEERING No	L [mm]
4P CABLE B30			4P CABLE B36		
1200678511	8840P7B30M006	600	1200678524	8840P7B36M0057H	500
1200678487	8840P7B30M0067	600	1200678532	8840P7B36M0067Y	600
1200678420	8840P7B30M010	1000	1200678521	8840P7B36M0107H	1000
1200678512	8840P7B30M015	1500	1200678496	8840P7B36M0107Y	1000
1200678421	8840P7B30M020	2000	1200678525	8840P7B36M0157H	1500
1200678488	8840P7B30M0207	2000	1200678522	8840P7B36M0207H	2000
1200678477	8840P7B30M030	3000	1200678479	8840P7B36M0207Y	2000
1200678422	8840P7B30M050	5000	1200678538	8840P7B36M0257H	2500
1200678427	8840P7B30M100	10000	1200678523	8840P7B36M0307H	3000
			1200678497	8840P7B36M0307Y	3000
			1200678526	8840P7B36M0507H	5000
			1200678498	8840P7B36M0507Y	5000
			1200678527	8840P7B36M1007H	10000
			1200678499	8840P7B36M1007Y	10000
			1200678500	8840P7B36M1507Y	15000
			1200678501	8840P7B36M2007Y	20000

NOTES:

CURRENT RATING: 4A
VOLTAGE RATING: 10 - 30 VDC
PROTECTION CLASS: IP 67
TEMPERATURE: -25°C / +85°C
INSULATION RESISTANCE : 10⁸Ω MIN
MATING CYCLES : MIN. 100

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			
	DIMENSION UNITS	SCALE		
$\frac{F}{A} = 0$	mm	1:1	CURRENT REV DESC: AS PER THE PCN-513749 CHANGED DIMENSIONING STYLE OF OVERALL LENGTH TO "END TO END". ADDED NEW NOTES ON INSULATION AND MATING CYCLES. SORTED PART LIST USING CABLE TYPES ON SHEET 2	
$\frac{F}{E} = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)			
$\frac{F}{P} = 0$	ANGULAR TOL ± 1.0°			
DIVISIONAL SYMBOLS	4 PLACES	±	EC NO: 789428	
	3 PLACES	±	DRWN: AKABADI	2023/08/09
	2 PLACES	± 0.05	CHK'D: RSILLER	2024/07/02
	1 PLACE	± 0.3	APPR: RSILLER	2024/07/02
	0 PLACES	± 0.5	INITIAL REVISION:	
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRWN: JMARSZALEK	2016/09/15
		THIRD ANGLE PROJECTION	APPR: RSILLER	2016/10/04
		DRAWING	SERIES	
		A4-SIZE	120067	
		MATERIAL NUMBER	CUSTOMER	
		SEE PART LIST	GENERAL MARKET	
		SHEET NUMBER	2 OF 2	

DOCUMENT STATUS	P1	RELEASE DATE	2024/07/02	09:18:08
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