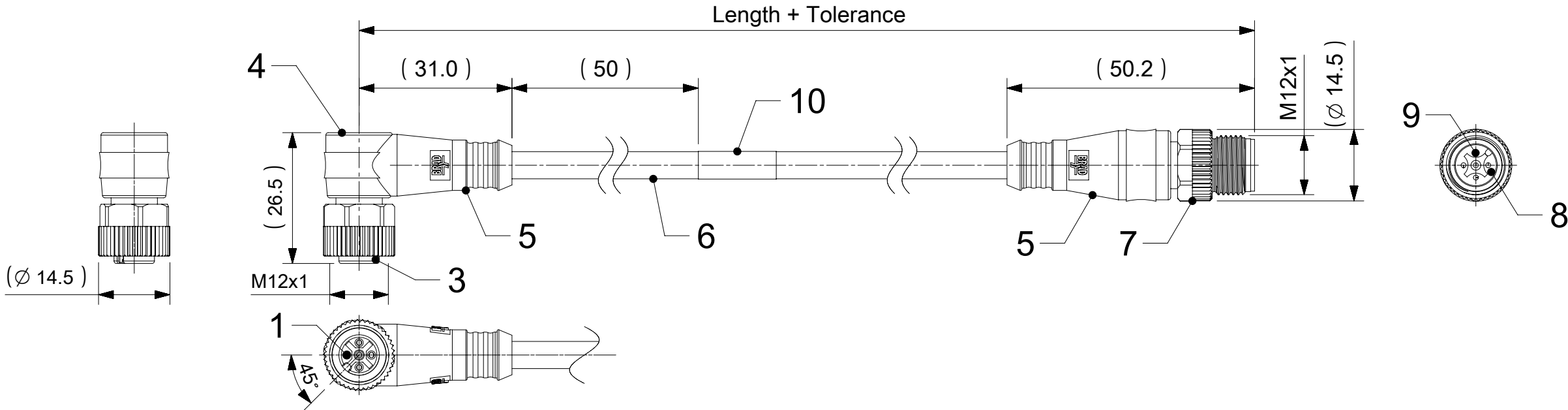


FEMALE PLUG M12 90° ANGLED TO MALE PLUG M12 STRAIGHT



NOTES:

CONTACT CURRENT RATING: 3-5 POLES 4A

8 POLES 2A

VOLTAGE RATING: 3-4 POLES 250V

5 POLES 60V

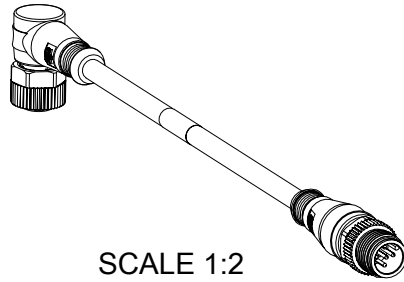
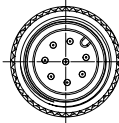
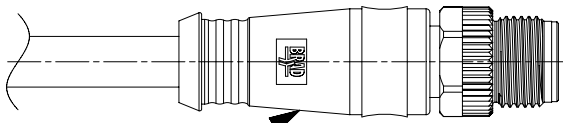
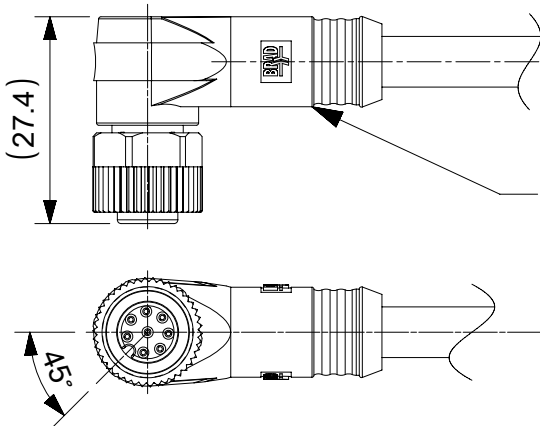
8 POLES 30V

PROTECTION CLASS: IP67 IN MATED &
LOCKED POSITION

TEMPERATURE: -25°C / +85°C

INSULATION RESISTANCE: 10⁸ Ω MIN.

MATING CYCLES: MIN. 100



CONTACT POSITION FRONT VIEW:

CABLE	3 POLES		4 POLES		5 POLES		5 POLES		8 POLES	
	B30, 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

DOCUMENT STATUS P1 RELEASE DATE 2024/07/02 09:17:56

FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2

10	1	LABEL OR PRINTING	VINYL / ---	---
9	3 / 4 / 5	CONTACT M12 MALE	COPPER	SELECTIVE GOLD OVER NICKEL
	8		BRASS	SELECTIVE GOLD OVER NICKEL
8	1	INSERT MALE BLACK	TPU	---
7	1	COUPLING NUT MALE	SEE SHEET 2	SEE SHEET 2
6	-	CABLE	SEE SHEET 2	---
5	-	OVERMOULDING	TPU	SEE SHEET 2
4	1	COUPLING NUT FEMALE	SEE SHEET 2	SEE SHEET 2
3	1	INSERT FEMALE BLACK	PUR	---
2	1	ORING RED	FPM	---
1	3 / 4 / 5	CONTACT M12 FEMALE	BRONZE	SELECTIVE GOLD OVER NICKEL
	8		BRASS	SELECTIVE GOLD OVER NICKEL
ITEM	QTY.	DESCRIPTION	MATERIAL	FINISH

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		CURRENT REV DESC: CHANGED DIMENSIONING STYLE OF OVERALL LENGTH TO END TO END UPDATED NOTES AND PART LIST SORTED USING CABLE TYPES IN SHEET 3					molex								
	mm		1:1															
	GENERAL TOLERANCES (UNLESS SPECIFIED)																	
	ANGULAR TOL ± 1.0 °																	
	4 PLACES ±									EC NO: 789428					CSE M12 XP AC FE RA WSOR MA STR XM DE			
	3 PLACES ±				DRWN: AKABADI 2023/03/10													
	2 PLACES ± 0.05				CHK'D: RSILLER 2024/07/02													
	DIVISIONAL SYMBOLS	1 PLACE ± 0.1				APPR: RSILLER 2024/07/02					PRODUCT CUSTOMER DRAWING							
		0 PLACES ± 0.2				INITIAL REVISION:												
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION		
						A3-SIZE		120066		1200668999		PSD		000		B		

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

88X031XXXXXX

88=M12x1
Double ended

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

Heads style:
031=Plug Female 90°
to Plug Male Straight

Cable type: See Table

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

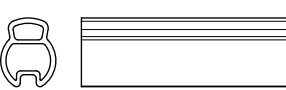
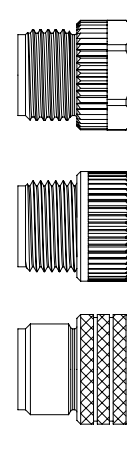
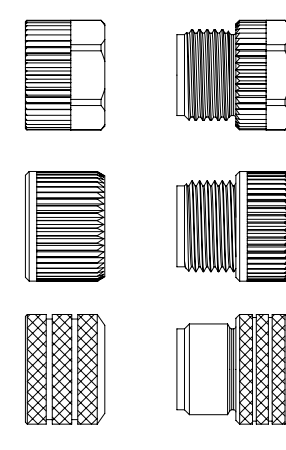
Length
Examples:
005=0.5 units
010=1 units
020=1 units
050=5 units
100=10 units
150=15 units
200=20 units

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
(Cable B36 always with
2 pcs. I/D Carrier)

FEMALEMALE



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
B55	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

FUNCTIONAL SYMBOLS

= 0

= 0

= 0

DIVISIONAL SYMBOLS

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: CHANGED DIMENSIONING STYLE OF OVERALL LENGTH TO END TO END. UPDATED NOTES AND PART LIST SORTED USING CABLE TYPES IN SHEET 3

EC NO: 789428
DRWN: AKABADI 2023/03/10
CHK'D: RSILLER 2024/07/02
APPR: RSILLER 2024/07/02

INITIAL REVISION:
DRWN: JMARSZALEK 2016/08/12
APPR: RSILLER 2016/08/29

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

120066

MATERIAL NUMBER

SEE SHEET 3

CUSTOMER

GENERAL MARKET

SHEET NUMBER

2 OF 3



CSE M12 XP AC FE RA WSOR MA STR XM DE

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

1200668999

DOC TYPE

PSD

DOC PART

000

REVISION

B

DOCUMENT STATUS

P1

RELEASE DATE

2024/07/02 09:17:56

10	9	8	7	6	5	4	3	2	1		
PART LIST											
MOLEX PNENGINEERING NoL [mm]			MOLEX PNENGINEERING NoL [mm]			MOLEX PNENGINEERING NoL [mm]			MOLEX PNENGINEERING NoL [mm]		
3P CABLE B30			4P CABLE B33			5P CABLE B36			5P CABLE B42		
1200668877	883031B30M006	600	1200669574	884031B33M100	10000	1200669549	885031B36M0057H	500	1200668835	885031B42M006	600
1200668878	883031B30M010	1000	1200669624	884031B33M100A	10000	1200669060	885031B36M0057Y	500	1200668836	885031B42M010	1000
1200668879	883031B30M020	2000	1200669625	884031B33M150A	15000	1200669550	885031B36M0107H	1000	1200668837	885031B42M020	2000
1200668880	883031B30M030	3000	1200669626	884031B33M200A	20000	1200669061	885031B36M0107Y	1000	1200668838	885031B42M030	3000
1200668881	883031B30M050	5000	5P CABLE B33			1200669551	885031B36M0157H	1500	1200668839	885031B42M050	5000
1200668882	883031B30M100	10000	1200669908	885031B33M005A	500	1200669552	885031B36M0207H	2000	1200668840	885031B42M100	10000
4P CABLE B30			1200669670	885031B33M010A	1000	1200669062	885031B36M0207Y	2000			
1200669949	884031B30M003	300	1200669671	885031B33M020A	2000	1200669553	885031B36M0307H	3000	MOLEX PNENGINEERING NoL [mm]		
1200668829	884031B30M006	600	1200669672	885031B33M030A	3000	1200669063	885031B36M0307Y	3000	4P CABLE B55		
1200668830	884031B30M010	1000	1200669673	885031B33M050A	5000	1200669064	885031B36M0407Y	4000	1200669730	884031B55M005Y	500
1200669520	884031B30M015	1500	1200669674	885031B33M100A	10000	1200669554	885031B36M0507H	5000	1200669272	884031B55M010Y	1000
1200668831	884031B30M020	2000	1200669675	885031B33M150A	15000	1200669065	885031B36M0507Y	5000	1200669273	884031B55M020Y	2000
1200668832	884031B30M030	3000	1200669676	885031B33M200A	20000	1200669066	885031B36M0607Y	6000	1200669274	884031B55M030Y	3000
1200668833	884031B30M050	5000	1200669909	885031B33M300A	30000	1200669067	885031B36M0807Y	8000	1200669275	884031B55M050Y	5000
1200669744	884031B30M080	8000	1200669910	885031B33M400A	40000	1200669555	885031B36M1007H	10000	1200669276	884031B55M060Y	6000
1200668834	884031B30M100	10000	1200669911	885031B33M500A	50000	1200669068	885031B36M1007Y	10000	1200669419	884031B55M070Y	7000
1200669285	884031B30M150	15000				1200669069	885031B36M1207Y	12000	1200669277	884031B55M100Y	10000
1200669566	884031B30M200	20000	MOLEX PNENGINEERING NO L [mm]			1200669070	885031B36M1507Y	15000	1200669278	884031B55M150Y	15000
5P CABLE B30			4P CABLE B36			1200669071	885031B36M1807Y	18000	1200669420	884031B55M200Y	20000
1200668997	885031B30M006	600	1200669534	884031B36M0057H	500	1200669072	885031B36M2007Y	20000	5P CABLE B55		
1200669241	885031B30M0067	600	1200669047	884031B36M0057Y	500	1200669073	885031B36M2507Y	25000	1200669679	885031B55M010Y	1000
1200668998	885031B30M010	1000	1200669564	884031B36M0067Y	600	1200669074	885031B36M3007Y	30000	1200669680	885031B55M020Y	2000
1200669371	885031B30M010H	1000	1200669535	884031B36M0107H	1000				1200669681	885031B55M030Y	3000
1200668999	885031B30M020	2000	1200669048	884031B36M0107Y	1000				1200669682	885031B55M050Y	5000
1200669243	885031B30M0207	2000	1200669536	884031B36M0157H	1500				1200669683	885031B55M100Y	10000
1200669000	885031B30M030	3000	1200669049	884031B36M0157Y	1500				1200669684	885031B55M150Y	15000
1200669001	885031B30M050	5000	1200669537	884031B36M0207H	2000				1200669685	885031B55M200Y	20000
1200669002	885031B30M100	10000	1200669050	884031B36M0207Y	2000						
1200669677	885031B30M150	15000	1200669538	884031B36M0307H	3000						
1200669678	885031B30M200	20000	1200669051	884031B36M0307Y	3000						
			1200669052	884031B36M0407Y	4000						
			1200669539	884031B36M0507H	5000						
			1200668861	884031B36M0507Y	5000						
			1200669053	884031B36M0607Y	6000						
			1200669054	884031B36M0807Y	8000						
			1200669540	884031B36M1007H	10000						
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