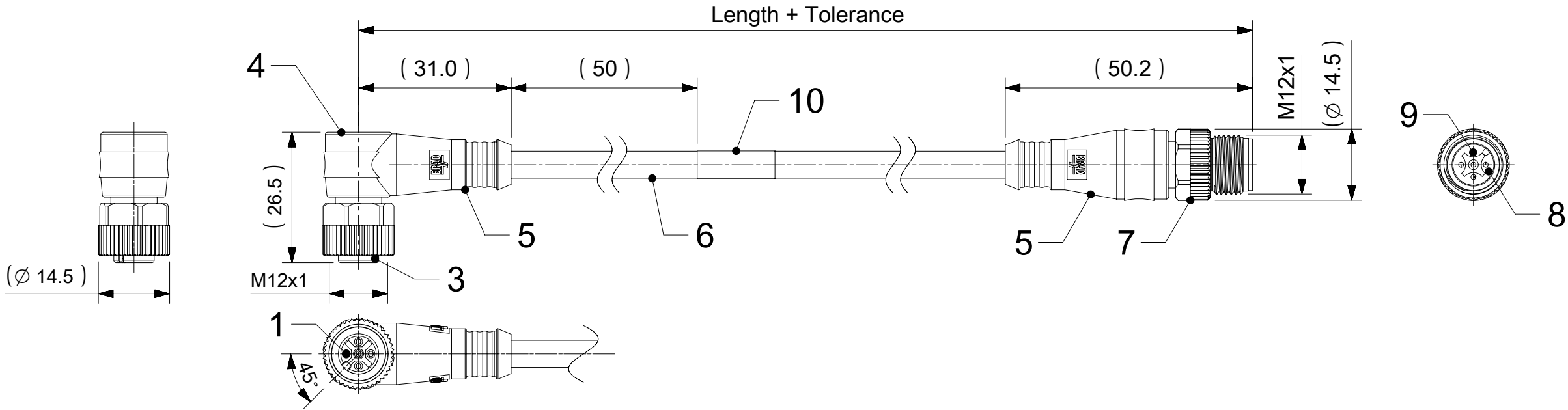


FEMALE PLUG M12 90° ANGLED TO MALE PLUG M12 STRAIGHT



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: 10<sup>8</sup> Ω MIN.

MATING CYCLES: MIN. 100

Thicker Overmold for Cables with  
bigger Outer Diameter

SCALE 1:2

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/<br>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 | 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

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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

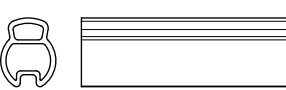
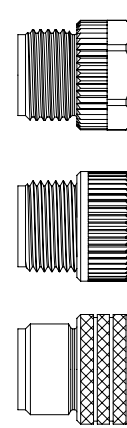
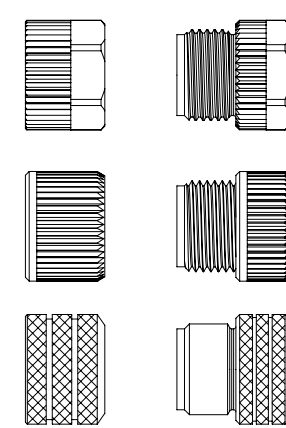
Cable type: See Table

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<br>5xO.D.       | -25°C to +80°C<br>7.5xO.D.      | -5°C to +60°C<br>7.5xO.D.          | up to 5 000 000 cycles<br>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

