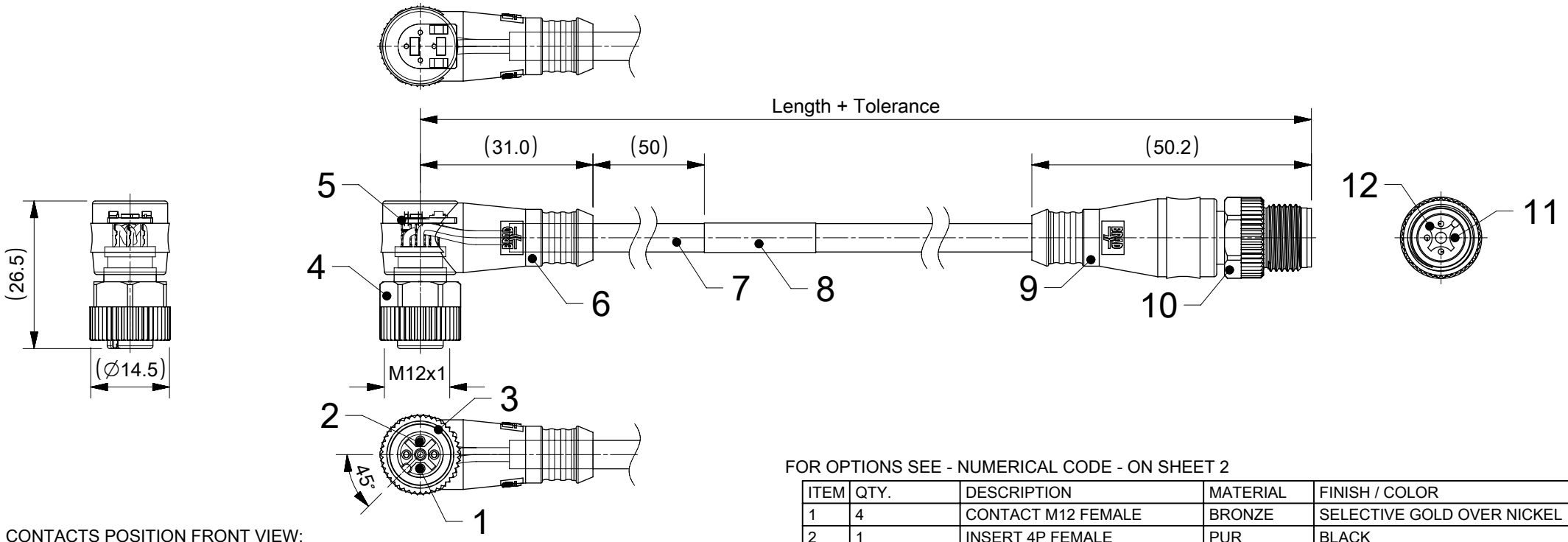
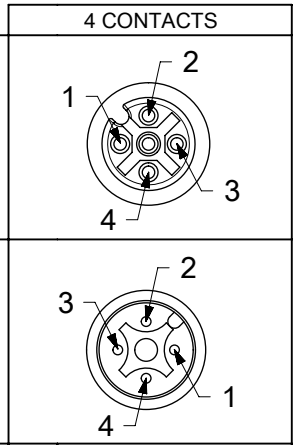
# FEMALE PNP PLUG M12 90° ANGLED TO MALE PLUG M12 STRAIGHT




FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2

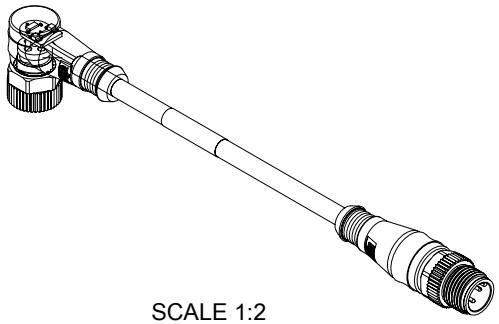
| ITEM | QTY. | DESCRIPTION | MATERIAL | FINISH / COLOR |
|---|---|---|---|---|
| 1 | 4 | CONTACT M12 FEMALE | BRONZE | SELECTIVE GOLD OVER NICKEL |
| 2 | 1 | INSERT 4P FEMALE | PUR | BLACK |
| 3 | 1 | ORING | FPM | RED |
| 4 | 1 | COUPLING NUT FEMALE SW13 | SEE SHEET 2 | SEE SHEET 2 |
| 5 | 1 | PCB 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 |

CONTACTS POSITION FRONT VIEW:

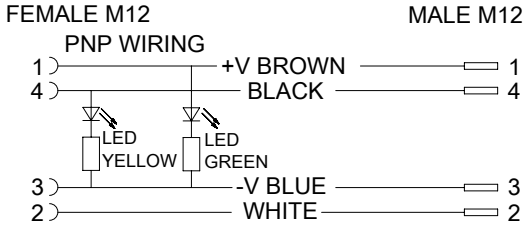



| CONNECTIONS | PIN | WIRE |
|---|---|---|
| | 1 | BROWN |
| | 2 | WHITE |
| | 3 | BLUE |
| | 4 | BLACK |

CODING ACCORDING TO IEC 61076-2-101




WIRING DIAGRAM




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

FUNCTIONAL SYMBOLS
FA = 0
FC = 0
FD = 0
DIVISIONAL SYMBOLS

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| DIMENSION UNITS | SCALE |
|---|---|
| mm | 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: 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

EC NO: 789428
DRWN: AKABADI 2023/08/09
CHK'D: RSILLER 2024/07/02
APPR: RSILLER 2024/07/02

INITIAL REVISION:
DRWN: JMARSZALEK 2016/09/15
APPR: RSILLER 2016/10/04

molex

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

PRODUCT CUSTOMER DRAWING

| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
|---|---|---|---|
| 1200678420 | PSD | 000 | B |

| THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|---|---|---|
| | A4-SIZE | 120067 | SEE PART LIST | GENERAL MARKET | 1 OF 2 |

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

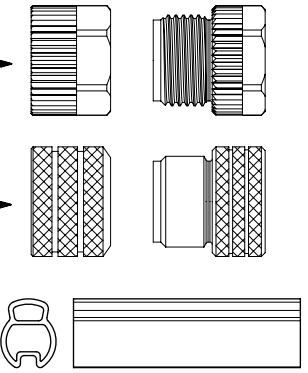
OPTIONS

| 8 | 8 | 4 | 0 | P | 7 | B | X | X | M | X | X | X | X |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

- 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)

COUPLING NUTS

FEMALE MALE



## 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] |
|---|---|---|
| 4P CABLE B30 | | |
| 1200678511 | 8840P7B30M006 | 600 |
| 1200678487 | 8840P7B30M0067 | 600 |
| 1200678420 | 8840P7B30M010 | 1000 |
| 1200678512 | 8840P7B30M015 | 1500 |
| 1200678421 | 8840P7B30M020 | 2000 |
| 1200678488 | 8840P7B30M0207 | 2000 |
| 1200678477 | 8840P7B30M030 | 3000 |
| 1200678422 | 8840P7B30M050 | 5000 |
| 1200678427 | 8840P7B30M100 | 10000 |

| MOLEX PN | ENGINEERING No | L [mm] |
|---|---|---|
| 4P CABLE B36 | | |
| 1200678524 | 8840P7B36M0057H | 500 |
| 1200678532 | 8840P7B36M0067Y | 600 |
| 1200678521 | 8840P7B36M0107H | 1000 |
| 1200678496 | 8840P7B36M0107Y | 1000 |
| 1200678525 | 8840P7B36M0157H | 1500 |
| 1200678522 | 8840P7B36M0207H | 2000 |
| 1200678479 | 8840P7B36M0207Y | 2000 |
| 1200678538 | 8840P7B36M0257H | 2500 |
| 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 : $10^8\Omega$ 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 |

| DOCUMENT STATUS | P1 | RELEASE DATE | 2024/07/02 09:18:08 |
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CSE M12 PNP 4P AC FE RA WSOR MA STR XM

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| THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|---|---|---|
| | A4-SIZE | 120067 | SEE PART LIST | GENERAL MARKET | 2 OF 2 |

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