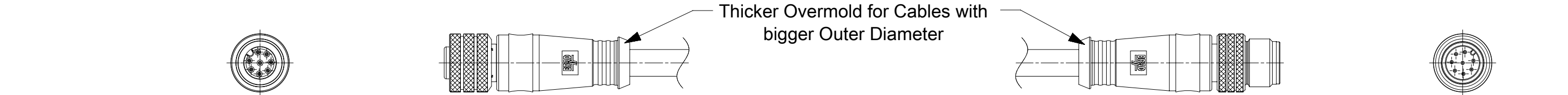
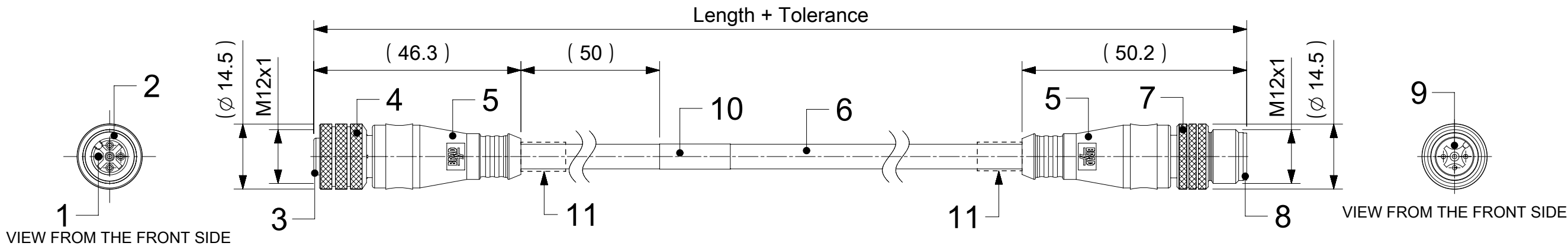


FEMALE PLUG M12 STRAIGHT TO MALE PLUG M12 STRAIGHT

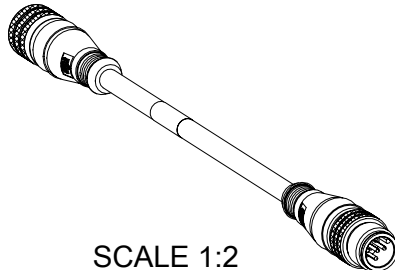


NOTES:

RATED VOLTAGE: 3, 4 contacts 250V per IEC 60664  
5 contacts 60V per IEC 60664  
5 contacts 250V per UL 2238  
8 contacts 30V per IEC 60664  
RATED CURRENT: 3, 4, 5 contacts 4A  
8 contacts 2A  
PROTECTION CLASS: IP 67  
TEMPERATURE: -25°C / +85°C

CONTACTS POSITION FRONT VIEW:

|                                    | 3 CONTACTS |       | 4 CONTACTS |       | 5 CONTACTS |       | 8 CONTACTS |        |
|------------------------------------|------------|-------|------------|-------|------------|-------|------------|--------|
| FEMALE                             |            |       |            |       |            |       |            |        |
| MALE                               |            |       |            |       |            |       |            |        |
| CONNECTIONS                        | PIN        | WIRE  | PIN        | WIRE  | PIN        | WIRE  | PIN        | WIRE   |
|                                    | 1          | BROWN | 1          | BROWN | 1          | BROWN | 1          | WHITE  |
|                                    | 2          | -     | 2          | WHITE | 2          | WHITE | 2          | BROWN  |
|                                    | 3          | BLUE  | 3          | BLUE  | 3          | BLUE  | 3          | GREEN  |
|                                    | 4          | BLACK | 4          | BLACK | 4          | BLACK | 4          | YELLOW |
|                                    |            |       |            |       | 5          | GREY  | 5          | GREY   |
|                                    |            |       |            |       |            |       | 6          | PINK   |
|                                    |            |       |            |       |            |       | 7          | BLUE   |
| CODING REQUIRED TO IEC 61076-2-101 |            |       |            |       |            |       |            |        |



FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2

|      |               |                     |               |                            |
|------|---------------|---------------------|---------------|----------------------------|
| 11   | SEE SHEET 2   | ID CARRIER          | PVC           | TRANSPARENT                |
| 10   | 1             | LABEL YELLOW        | VINYL         | -                          |
| 9    | 3 / 4 / 5 / 8 | CONTACT MALE        | SEE PART LIST | SELECTIVE GOLD OVER NICKEL |
| 8    | 1             | INSERT MALE BLACK   | TPU           | -                          |
| 7    | 1             | COUPLING NUT MALE   | -             | -                          |
| 6    | -             | CABLE               | SEE SHEET 2   | -                          |
| 5    | -             | OVERMOULDING BLACK  | TPU           | -                          |
| 4    | 1             | COUPLING NUT FEMALE | -             | -                          |
| 3    | 1             | INSERT FEMALE BLACK | PUR           | -                          |
| 2    | 1             | O-RING RED          | FPM           | -                          |
| 1    | 3 / 4 / 5 / 8 | CONTACT FEMALE      | SEE PART LIST | 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: NEW P/N'S ADDED TO THE DRAWING 12335 |  |        |  |                                   |  | <div>molex</div> |  |              |  |          |  |
| mm                                                   |  | 1:1                                                                                                                                           |  |                                                        |  |        |  |                                   |  |                  |  |              |  |          |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                |  | EC NO: 769491<br>DRWN: VHANDI 2023/10/30<br>CHK'D: RSILLER 2023/11/21<br>APPR: RSILLER 2023/11/21                                             |  |                                                        |  |        |  | CSE M12 XP AC FE STR MA STR XM DE |  |                  |  |              |  |          |  |
| ANGULAR TOL ± 1.0 °                                  |  |                                                                                                                                               |  |                                                        |  |        |  |                                   |  |                  |  |              |  |          |  |
| 4 PLACES ±                                           |  |                                                                                                                                               |  |                                                        |  |        |  |                                   |  |                  |  |              |  |          |  |
| 3 PLACES ±                                           |  |                                                                                                                                               |  |                                                        |  |        |  | PRODUCT CUSTOMER DRAWING          |  |                  |  |              |  |          |  |
| 2 PLACES ± 0.05                                      |  |                                                                                                                                               |  |                                                        |  |        |  | DOCUMENT NUMBER                   |  | DOC TYPE         |  | DOC PART     |  | REVISION |  |
| 1 PLACE ± 0.3                                        |  | INITIAL REVISION:<br>DRWN: JMARSZALEK 2016/09/16<br>APPR: RSILLER 2016/12/08                                                                  |  |                                                        |  |        |  | 1200668084                        |  | PSD              |  | 000          |  | A17      |  |
| 0 PLACES ± 0.5                                       |  | THIRD ANGLE PROJECTION                                                                                                                        |  | DRAWING                                                |  | SERIES |  | MATERIAL NUMBER                   |  | CUSTOMER         |  | SHEET NUMBER |  |          |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |  |                                                                                                                                               |  | A3-SIZE                                                |  | 120066 |  | SEE SHEET 3-4                     |  | GENERAL MARKET   |  | 1 OF 4       |  |          |  |

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

## OPTIONS

COUPLING NUTS  
FEMALE    MALE

8 8 X 0 3 0 X X X X X X X X

88=Micro-Change  
M12x1  
Double ended

Contacts:  
3=3 Contacts  
4=4 Contacts  
5=5 Contacts  
8=8 Contacts

|              |                                                   |
|--------------|---------------------------------------------------|
| Heads style: | 030=Plug Female Straight<br>to Plug Male Straight |
|--------------|---------------------------------------------------|

Cable type: See Table

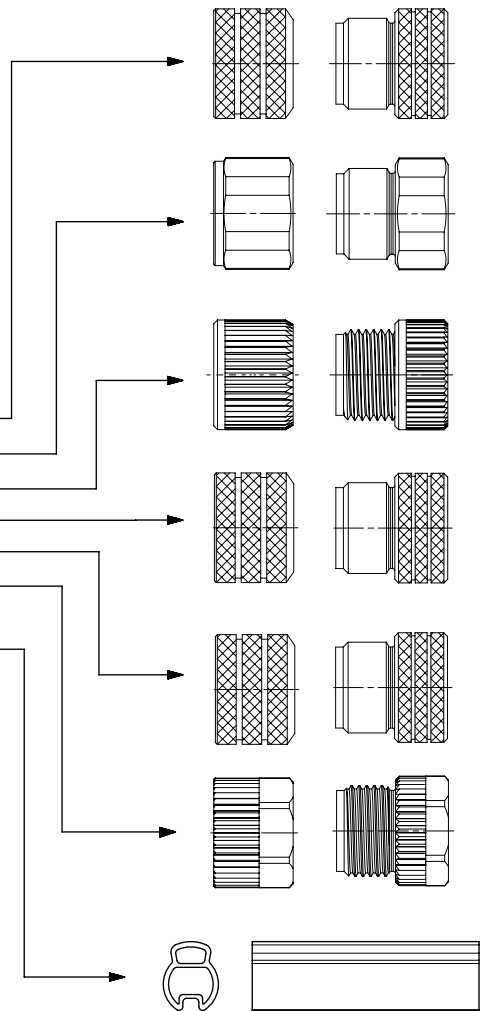
Units:  
M=Meter  
C=Centimeter

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

Overmold color:  
Blank (Standard)=Black  
A=Grey / G=Black / Y=Yellow

Coupling Nut:  
Blank (Standard) & 3=Knurled Brass Ni Plated  
1=Hexagonal Stainless steel \_\_\_\_\_  
5=Knurled Derlin \_\_\_\_\_  
7=Knurled Brass Ni Plated, Teflon Coated \_\_\_\_\_  
8=Type 316 stainless steel \_\_\_\_\_  
9=Knurled / Hexagonal Brass Ni Plated SW13

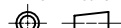
H= 2 pcs. of I/D Carrier PVC Transparent



## 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                                          | SHIELD |
|------------|---------------|---------------|-----------------|----------------|--------------------------|--------------------------------|---------------------------------|-----------------------------------------------------|--------|
| E02        | 3 / 4 / 5 / 8 | 0.25mm²       | PVC BLACK       | UL 2464/1729   | C22.2 I/II A/B 80°C/300V | -30°C to +80°C, 10xO.D.        | -10°C to +80°C, 15xO.D.         | -                                                   | -      |
| E03        | 3 / 4 / 5     | 0.34mm²       | PVC BLACK       | UL 2464/1729   | C22.2 I/II A/B 80°C/300V | -30°C to +80°C, 10xO.D.        | -10°C to +80°C, 15xO.D.         | -                                                   | -      |
| H08        | 3 / 4 / 5 / 8 | 0.25mm²       | PUR BLACK LS0H  | UL 21198/10493 | C22.2 I/II A/B 80°C/300V | -40°C to +80°C, 5xO.D.         | -25°C to +80°C, 10xO.D.         | 2 000 000 cycles at 20°C, Temp. range +5°C to +60°C | -      |
| H09        | 3 / 4 / 5     | 0.34mm²       | PUR BLACK LS0H  | UL 21198/10493 | C22.2 I/II A/B 80°C/300V | -40°C to +80°C, 5xO.D.         | -25°C to +80°C, 10xO.D.         | 2 000 000 cycles at 20°C, Temp. range +5°C to +60°C | -      |
| P02        | 3 / 4 / 5 / 8 | 0.25mm²       | PUR / PVC BLACK | -              | -                        | -30°C to +80°C, 7xO.D.         | -5°C to +80°C, 15xO.D.          | -                                                   | -      |
| P03        | 3 / 4 / 5     | 0.34mm²       | PUR / PVC BLACK | -              | -                        | -30°C to +80°C, 7xO.D.         | -5°C to +80°C, 15xO.D.          | -                                                   | -      |

| CABLE LENGTH TOLERANCES |                          |                        |
|-------------------------|--------------------------|------------------------|
| OVER [mm]               | UP TO AND INCLUDING [mm] | TOLERANCES [mm]        |
| 0                       | 305                      | +19                    |
| 305                     | 915                      | +45                    |
| 915                     | 1830                     | +56                    |
| 1830                    | 3660                     | +89                    |
| 3660                    | 7320                     | +165                   |
| 7320                    | 14640                    | +317                   |
| 14640                   | 30500                    | +610                   |
| 30500                   | >                        | +2% OF FINISHED LENGTH |

|                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                               |  |        |                                                                                                                            |                                                                                                                                                                                                                                                |                               |  |                             |  |                                                           |  |                                       |  |                                   |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--|--------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--|-----------------------------|--|-----------------------------------------------------------|--|---------------------------------------|--|-----------------------------------|--|
| FUNCTIONAL SYMBOLS<br><br><div> = 0</div><br><div> = 0</div><br><div> = 0</div><br><br>DIVISIONAL 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: NEW P/N'S ADDED TO THE DRAWING 12335<br><br>EC NO: 769491<br>DRWN: VHANDI2023/10/30<br>CHK'D: RSILLER2023/11/21<br>APPR: RSILLER2023/11/21<br><br>INITIAL REVISION:<br>DRWN: JMARSZALEK2016/09/16<br>APPR: RSILLER2016/12/08 |                               |  |                             |  | <div>molex</div><br><br>CSE M12 XP AC FE STR MA STR XM DE |  |                                       |  |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                          | mm                                                                                                                                            |  | 1:1    |                                                                                                                            |                                                                                                                                                                                                                                                |                               |  |                             |  |                                                           |  |                                       |  |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                          | GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                         |  |        |                                                                                                                            |                                                                                                                                                                                                                                                |                               |  |                             |  |                                                           |  |                                       |  |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                          | ANGULAR TOL ± 1.0 °                                                                                                                           |  |        |                                                                                                                            |                                                                                                                                                                                                                                                |                               |  |                             |  |                                                           |  |                                       |  |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                          | 4 PLACES                                                                                                                                      |  | ±      |                                                                                                                            |                                                                                                                                                                                                                                                |                               |  |                             |  | PRODUCT CUSTOMER DRAWING                                  |  |                                       |  |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                          | 3 PLACES                                                                                                                                      |  | ±      |                                                                                                                            |                                                                                                                                                                                                                                                |                               |  |                             |  |                                                           |  |                                       |  |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                          | 2 PLACES                                                                                                                                      |  | ± 0.05 |                                                                                                                            | DOCUMENT NUMBER<br><div>1200668084</div><br>DOC TYPE<br>PSD<br>DOC PART<br>000<br>REVISION<br>A17                                                                                                                                              |                               |  |                             |  |                                                           |  |                                       |  |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                          | 1 PLACE                                                                                                                                       |  | ± 0.3  |                                                                                                                            |                                                                                                                                                                                                                                                |                               |  |                             |  |                                                           |  |                                       |  |                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                          | 0 PLACES                                                                                                                                      |  | ± 0.5  |                                                                                                                            |                                                                                                                                                                                                                                                |                               |  |                             |  |                                                           |  |                                       |  |                                   |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |  |        | THIRD ANGLE PROJECTION<br><div></div> |                                                                                                                                                                                                                                                | DRAWING<br><div>A3-SIZE</div> |  | SERIES<br><div>120066</div> |  | MATERIAL NUMBER<br><div>SEE SHEET 3-4</div>               |  | CUSTOMER<br><div>GENERAL MARKET</div> |  | SHEET NUMBER<br><div>2 OF 4</div> |  |

|                 |    |              |            |          |
|-----------------|----|--------------|------------|----------|
| DOCUMENT STATUS | P1 | RELEASE DATE | 2023/11/21 | 12:03:28 |
|-----------------|----|--------------|------------|----------|



