

# 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   |
|             |            |       |            |       |            | 8     | RED        |        |

CODING REQUIRED TO IEC 61076-2-101



SCALE 1:2

**FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2**

| ITEM | QTY.          | DESCRIPTION         | MATERIAL      | FINISH                     |
|------|---------------|---------------------|---------------|----------------------------|
| 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 |

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: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871. |                 |
| mm   | 1:1    |   |                 |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                |        |   |                 |
| ANGULAR TOL  | ± 1.0° |   |                 |
| 4 PLACES   | ±      | EC NO: 732259   |                 |
| 3 PLACES   | ±      | DRWN: SANTHN  | 2022/12/20      |
| 2 PLACES   | ± 0.05 | CHK'D: GGA  | 2022/12/21      |
| 1 PLACE  | ± 0.3  | APPR: GGA   | 2022/12/21      |
| 0 PLACES   | ± 0.5  | INITIAL REVISION:   |                 |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |        | DRWN: JMARSZALEK  | 2016/09/16      |
| THIRD ANGLE PROJECTION                               |        | APPR: RSILLER   | 2016/12/08      |
| DRAWING  |        | SERIES  | MATERIAL NUMBER |
| A3-SIZE  |        | 120066  | SEE SHEET 3-4   |
| CUSTOMER   |        | SHEET NUMBER  |                 |
| GENERAL MARKET                                       |        | 1 OF 4  |                 |

**molex**

CSE M12 XP AC FE STR MA STR XM DE

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER: 1200668084  
DOC TYPE: PSD  
DOC PART: 000  
REVISION: A15

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

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  
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

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  | SHIELD |
|------------|---------------|---------------------|-----------------|----------------|--------------------------|--------------------------------|---------------------------------|---|--------|
| E02        | 3 / 4 / 5 / 8 | 0.25mm <sup>2</sup> | 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     | 0.34mm <sup>2</sup> | 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 | 0.25mm <sup>2</sup> | 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     | 0.34mm <sup>2</sup> | 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 | 0.25mm <sup>2</sup> | PUR / PVC BLACK | -              | -                        | -30°C to +80°C, 7xO.D.         | -5°C to +80°C, 15xO.D.          | -   | -      |
| P03        | 3 / 4 / 5     | 0.34mm <sup>2</sup> | PUR / PVC BLACK | -              | -                        | -30°C to +80°C, 7xO.D.         | -5°C to +80°C, 15xO.D.          | -   | -      |

| 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 |

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|  |         |   |                                   |  |  |
|--|---------|---|-----------------------------------|--|--|
| DIMENSION UNITS                                      | SCALE   | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871. | <b>molex</b>                      |  |  |
| mm   | 1:1     |   |                                   |  |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                |         |   | CSE M12 XP AC FE STR MA STR XM DE |  |  |
| ANGULAR TOL  | ± 1.0 ° |   | PRODUCT CUSTOMER DRAWING          |  |  |
| 4 PLACES   | ±       | EC NO: 732259   | DOCUMENT NUMBER                   |  |  |
| 3 PLACES   | ±       | DRWN: SANTHN 2022/12/20   | 1200668084                        |  |  |
| 2 PLACES   | ± 0.05  | CHK'D: GGA 2022/12/21   | DOC TYPE DOC PART REVISION        |  |  |
| 1 PLACE  | ± 0.3   | APPR: GGA 2022/12/21  | PSD 000 A15                       |  |  |
| 0 PLACES   | ± 0.5   | INITIAL REVISION:   | SHEET NUMBER                      |  |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |         | DRWN: JMARSZALEK 2016/09/16                                       | MATERIAL NUMBER                   |  |  |
| THIRD ANGLE PROJECTION                               |         | APPR: RSILLER 2016/12/08  | CUSTOMER                          |  |  |
| DRAWING  |         | SERIES  | SEE SHEET 3-4                     |  |  |
| A3-SIZE  |         | 120066  | GENERAL MARKET                    |  |  |
|  |         |   | 2 OF 4                            |  |  |

# PART LIST

| No. | MOLEX PN   | Engineering No. | Length |
|-----|------------|-----------------|--------|
| 1   | 1200060049 | 884030E03M050   | 5m     |
| 2   | 1200060050 | 884030P03M015   | 1.5m   |
| 3   | 1200060051 | 884030P03M030   | 3m     |
| 4   | 1200070081 | 883030E03M006   | 0.6m   |
| 5   | 1200070083 | 883030E03M010   | 1m     |
| 6   | 1200070085 | 883030E03M020   | 2m     |
| 7   | 1200070086 | 883030E03M0205  | 2m     |
| 8   | 1200070088 | 883030E03M030   | 3m     |
| 9   | 1200070091 | 883030E03M050   | 5m     |
| 10  | 1200070092 | 883030E03M0505  | 5m     |
| 11  | 1200070093 | 883030E03M100   | 10m    |
| 12  | 1200070102 | 883030P03M003   | 0.3m   |
| 13  | 1200070104 | 883030P03M006   | 0.6m   |
| 14  | 1200070105 | 883030P03M100   | 10m    |
| 15  | 1200070470 | 884030E03M003   | 0.3m   |
| 16  | 1200070472 | 884030E03M006   | 0.6m   |
| 17  | 1200070473 | 884030E03M010   | 1m     |
| 18  | 1200070474 | 884030E03M020   | 2m     |
| 19  | 1200070475 | 884030E03M030   | 3m     |
| 20  | 1200070476 | 884030E03M100   | 10m    |
| 21  | 1200070486 | 884030P03M003   | 0.3m   |
| 22  | 1200070487 | 884030P03M006   | 0.6m   |
| 23  | 1200070488 | 884030P03M010   | 1m     |
| 24  | 1200070489 | 884030P03M020   | 2m     |
| 25  | 1200070490 | 884030P03M050   | 5m     |
| 26  | 1200070586 | 885030E03M030   | 3m     |
| 27  | 1200070596 | 885030P03M020   | 2m     |
| 28  | 1200070906 | 885030E03M010   | 1m     |
| 29  | 1200070969 | 885030E03M050   | 5m     |
| 30  | 1200070970 | 885030E03M020   | 2m     |
| 31  | 1200071006 | 883030E03M020H  | 2m     |
| 32  | 1200071029 | 884030P03M100   | 10m    |
| 33  | 1200071047 | 883030P03M050H  | 5m     |
| 34  | 1200071049 | 885030P03M050   | 5m     |
| 35  | 1200071053 | 883030P03M150   | 15m    |


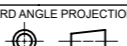
| No. | MOLEX PN   | Engineering No. | Length |
|-----|------------|-----------------|--------|
| 36  | 1200071114 | 883030P03M020H  | 2m     |
| 37  | 1200071122 | 883030P03M030H  | 3m     |
| 38  | 1200071123 | 883030P03M010H  | 1m     |
| 39  | 1200071131 | 883030P03M0201  | 2m     |
| 40  | 1200071199 | 884030E03M200   | 20m    |
| 41  | 1200071273 | 883030P03M100H  | 10m    |
| 42  | 1200071284 | 885030P03M100   | 10m    |
| 43  | 1200071288 | 883030P03M060   | 6m     |
| 44  | 1200071408 | 885030P03M030   | 3m     |
| 45  | 1200071500 | 885030E03M005   | 0.5m   |
| 46  | 1200071583 | 885030E03M080   | 8m     |
| 47  | 1200071594 | 884030E03M015   | 1.5m   |
| 48  | 1200071596 | 884030E03M060   | 6m     |
| 49  | 1200071703 | 884030E03M0205  | 2m     |
| 50  | 1200071707 | 884030E03M0505  | 5m     |
| 51  | 1200071715 | 884030E03M150   | 15m    |
| 52  | 1200071774 | 884030E03M020H  | 2m     |
| 53  | 1200071793 | 884030E03M1501  | * 15m  |
| 54  | 1200071881 | 884030E03M1005  | 10m    |
| 55  | 1200071947 | 885030P03M007   | 0.7m   |
| 56  | 1200071948 | 885030E03M040   | 4m     |
| 57  | 1200072010 | 884030P03M050H  | 5m     |
| 58  | 1200072081 | 885030E03M035   | 3.5m   |
| 59  | 1200072092 | 884030E03M040   | 4m     |
| 60  | 1200072104 | 883030P03M040   | 4m     |
| 61  | 1200072105 | 884030P03M200   | 20m    |
| 62  | 1200072172 | 884030E03M050H  | 5m     |
| 63  | 1200072544 | 884030E03M120   | 12m    |
| 64  | 1200072649 | 884030P03M0105  | 1m     |
| 65  | 1200072650 | 884030P03M0505  | 5m     |
| 66  | 1200072656 | 885030P03M120   | 12m    |
| 67  | 1200072658 | 883030P03M120   | 12m    |
| 68  | 1200072697 | 885030E03M060   | 6m     |
| 69  | 1200072744 | 884030E03M0501  | * 5m   |
| 70  | 1200072762 | 884030P03M0101  | 1m     |

| No. | MOLEX PN   | Engineering No. | Length |
|-----|------------|-----------------|--------|
| 71  | 1200072763 | 884030P03M0201  | 2m     |
| 72  | 1200072764 | 884030P03M0301  | 3m     |
| 73  | 1200072803 | 884030P03M040   | 4m     |
| 74  | 1200072804 | 884030P03M060   | 6m     |
| 75  | 1200073049 | 885030P03M0501  | 5m     |
| 76  | 1200073083 | 885030P03M006   | 0.6m   |
| 77  | 1200073084 | 885030P03M150   | 15m    |
| 78  | 1200660498 | 883030P03M010   | 1m     |
| 79  | 1200660500 | 883030P03M020   | 2m     |
| 80  | 1200660501 | 883030P03M030   | 3m     |
| 81  | 1200660502 | 883030P03M050   | 5m     |
| 82  | 1200660579 | 888030P02M010   | 1m     |
| 83  | 1200660580 | 888030P02M020   | 2m     |
| 84  | 1200660581 | 888030P02M030   | 3m     |
| 85  | 1200660582 | 888030P02M040   | 4m     |
| 86  | 1200660583 | 888030P02M050   | 5m     |
| 87  | 1200660584 | 888030P02M060   | 6m     |
| 88  | 1200660585 | 888030P02M100   | 10m    |
| 89  | 1200660586 | 888030P02M150   | 15m    |
| 90  | 1200661455 | 888030P02M005   | 0.5m   |
| 91  | 1200665009 | 884030E03M005   | 0.5m   |
| 92  | 1200665031 | 884030P03M100H  | 10m    |
| 93  | 1200668062 | 884030E03M010H  | 1m     |
| 94  | 1200668084 | 885030P03M010   | 1m     |
| 95  | 1200668086 | 885030P03M0283  | 2.8m   |
| 96  | 1200668088 | 885030P03M070   | 7m     |
| 97  | 1200668163 | 885030P03M040   | 4m     |
| 98  | 1200668174 | 884030H09M030   | 3m     |
| 99  | 1200668234 | 884030H09M020   | 2m     |
| 100 | 1200668238 | 885030P03M200   | 20m    |
| 101 | 1200668244 | 884030H09M050   | 5m     |
| 102 | 1200668288 | 888030E02M025   | 2.5m   |
| 103 | 1200668327 | 888030P02M200   | 20m    |
| 104 | 1200668338 | 885030E03M006   | 0.6m   |
| 105 | 1200668347 | 885030E03M100   | 10m    |

| No. | MOLEX PN   | Engineering No. | Length |
|-----|------------|-----------------|--------|
| 106 | 1200668352 | 888030P02M250   | 25m    |
| 107 | 1200668370 | 883030E03M040   | 4m     |
| 108 | 1200668373 | 883030H09M006   | 0.6m   |
| 109 | 1200668374 | 883030H09M010   | 1m     |
| 110 | 1200668375 | 883030H09M030   | 3m     |
| 111 | 1200668376 | 883030H09M040   | 4m     |
| 112 | 1200668377 | 883030H09M100   | 10m    |
| 113 | 1200668378 | 884030H09M006   | 0.6m   |
| 114 | 1200668379 | 884030H09M010   | 1m     |
| 115 | 1200668380 | 884030H09M040   | 4m     |
| 116 | 1200668381 | 884030H09M100   | 10m    |
| 117 | 1200668399 | 888030E02M003   | 0.3m   |
| 118 | 1200668486 | 884030H09M023   | 2.3m   |
| 119 | 1200668487 | 885030E03M200   | 20m    |
| 120 | 1200668491 | 888030H08M010   | 1m     |
| 121 | 1200668497 | 885030H09M010   | 1m     |
| 122 | 1200668500 | 885030H09M020   | 2m     |
| 123 | 1200668501 | 885030H09M050   | 5m     |
| 124 | 1200668502 | 885030H09M092   | 9.2m   |
| 125 | 1200668509 | 885030H09M006   | 0.6m   |
| 126 | 1200668510 | 885030H09M030   | 3m     |
| 127 | 1200668511 | 885030H09M100   | 10m    |
| 128 | 1200668521 | 885030E03M250   | 25m    |
| 129 | 1200668528 | 885030E03M020H  | 2m     |
| 130 | 1200668530 | 885030E03M010H  | 1m     |
| 131 | 1200668544 | 888030P02M500   | 50m    |
| 132 | 1200668548 | 884030H09M006H  | 0.6m   |
| 133 | 1200668549 | 884030H09M010H  | 1m     |
| 134 | 1200668550 | 884030H09M050H  | 5m     |
| 135 | 1200668602 | 885030P03M020G  | 2m     |
| 136 | 1200668609 | 885030E02M050   | 5m     |
| 137 | 1200668646 | 883030P03M030HY | 3m     |
| 138 | 1200668652 | 885030E03M070   | 7m     |
| 139 | 1200668656 | 885030E02M100   | 10m    |
| 140 | 1200668657 | 885030E02M020   | 2m     |

## NOTES:

\* - Part No. with Yellow PVC overmolding

|   |         |   |         |          |                 |                |                          |  |  |
|---|---------|---|---------|----------|-----------------|----------------|--------------------------|--|--|
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| DIMENSION UNITS   | SCALE   | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871.   |         |          |                 |                |                          |  |  |
| mm  | 1:1     | <br>CSE M12 XP AC FE STR MA STR XM DE  |         |          |                 |                |                          |  |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |         |   |         |          |                 |                |                          |  |  |
| ANGULAR TOL   | ± 1.0 ° | EC NO: 732259<br>DRWN: SANTHN 2022/12/20<br>CHK'D: GGA 2022/12/21<br>APPR: GGA 2022/12/21<br>INITIAL REVISION:<br>DRWN: JMARSZALEK 2016/09/16<br>APPR: RSILLER 2016/12/08 |         |          |                 |                |                          |  |  |
| 4 PLACES  | ±       |   |         |          |                 |                |                          |  |  |
| 3 PLACES  | ±       |   |         |          |                 |                |                          |  |  |
| 2 PLACES  | ± 0.05  |   |         |          |                 |                |                          |  |  |
| 1 PLACE   | ± 0.3   | DOCUMENT NUMBER   |         | DOC TYPE | DOC PART        | REVISION       | PRODUCT CUSTOMER DRAWING |  |  |
| 0 PLACES  | ± 0.5   | 1200668084  |         | PSD      | 000             | A15            |                          |  |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |         | THIRD ANGLE PROJECTION  | DRAWING | SERIES   | MATERIAL NUMBER | CUSTOMER       | SHEET NUMBER             |  |  |
|   |         |    | A3-SIZE | 120066   | SEE PART LIST   | GENERAL MARKET | 3 OF 4                   |  |  |

|                 |    |              |            |          |
|-----------------|----|--------------|------------|----------|
| DOCUMENT STATUS | P1 | RELEASE DATE | 2022/12/21 | 07:37:48 |
|-----------------|----|--------------|------------|----------|

# PART LIST

| No. | MOLEX PN   | Engineering No. | Length |
|-----|------------|-----------------|--------|
| 141 | 1200668661 | 884030E02M0031  | *0.3m  |
| 142 | 1200668662 | 883030E02M006   | 0.6m   |
| 143 | 1200668664 | 885030E02M010   | 1m     |
| 144 | 1200668672 | 884030E03M0051  | *0.5m  |
| 145 | 1200668674 | 885030E03M150   | 15m    |
| 146 | 1200668683 | 885030H09M150   | 15m    |
| 147 | 1200668684 | 885030H09M200   | 20m    |
| 148 | 1200668687 | 884030P03M005   | 0.5m   |
| 149 | 1200668689 | 884030H08M030   | 3m     |
| 150 | 1200668690 | 883030P03M020YH | 2m     |
| 151 | 1200668691 | 883030P03M010YH | 1m     |
| 152 | 1200668712 | 883030P03M100HY | 10m    |
| 153 | 1200668713 | 883030P03M050HY | 5m     |
| 154 | 1200668714 | 884030H09M0209  | 2m     |
| 155 | 1200668715 | 884030H09M003   | 0.3m   |
| 156 | 1200668718 | 884030E03M250   | 25m    |
| 157 | 1200668719 | 884030E03M300   | 30m    |
| 158 | 1200668720 | 884030P03M150   | 15m    |
| 159 | 1200668721 | 884030P03M250   | 25m    |
| 160 | 1200668722 | 884030P03M300   | 30m    |
| 161 | 1200668723 | 884030P03M350   | 35m    |
| 162 | 1200668724 | 884030P03M400   | 40m    |
| 163 | 1200668737 | 884030H09M055   | 5.5m   |
| 164 | 1200668754 | 884030P03M020H  | 2m     |
| 165 | 1200668765 | 885030P03M015   | 1.5m   |
| 166 | 1200668770 | 884030E03M350   | 35m    |
| 167 | 1200668771 | 884030E03M400   | 40m    |
| 168 | 1200668774 | 888030H08M100   | 10m    |
| 169 | 1200668775 | 885030P03M300   | 30m    |
| 170 | 1200668777 | 888030E02M020   | 2m     |
| 171 | 1200668778 | 888030E02M030   | 3m     |
| 172 | 1200668779 | 888030E02M050   | 5m     |
| 173 | 1200668780 | 888030E02M100   | 10m    |
| 174 | 1200668784 | 885030E03M300   | 30m    |
| 175 | 1200668785 | 885030E03M350   | 35m    |

| No. | MOLEX PN   | Engineering No. | Length |
|-----|------------|-----------------|--------|
| 176 | 1200668786 | 884030E03M070   | 7m     |
| 177 | 1200668794 | 885030P03M006H  | 0.6m   |
| 178 | 1200668795 | 885030P03M010H  | 1m     |
| 179 | 1200668796 | 885030P03M030H  | 3m     |
| 180 | 1200668797 | 885030P03M050H  | 5m     |
| 181 | 1200668798 | 885030P03M100H  | 10m    |
| 182 | 1200668800 | 885030P03M200H  | 20m    |
| 183 | 1200668801 | 885030P03M300H  | 30m    |
| 184 | 1200668802 | 885030P03M350H  | 35m    |
| 185 | 1200668803 | 888030P02M010H  | 1m     |
| 186 | 1200668804 | 888030P02M020H  | 2m     |
| 187 | 1200668806 | 888030P02M050H  | 5m     |
| 188 | 1200668807 | 888030P02M100H  | 10m    |
| 189 | 1200668808 | 888030P02M150H  | 15m    |
| 190 | 1200668809 | 888030P02M200H  | 20m    |
| 191 | 1200668810 | 888030P02M350H  | 35m    |
| 192 | 1200668815 | 884030P03M0805  | 8m     |
| 193 | 1200668853 | 885030H09M040   | 4m     |
| 194 | 1200668854 | 885030H09M060   | 6m     |
| 195 | 1200668903 | 885030P03C130   | 0.13m  |
| 196 | 1200668972 | 885030E03M003   | 0.3m   |
| 197 | 1200668973 | 885030E03M025   | 2.5m   |
| 198 | 1200668980 | 885030E03M080H  | 8m     |
| 199 | 1200668981 | 885030E03M040H  | 4m     |
| 200 | 1200668982 | 885030E03M060H  | 6m     |
| 201 | 1200668985 | 885030E03M030H  | 3m     |
| 202 | 1200669111 | 885030P03M150H  | 15m    |
| 203 | 1200669117 | 888030H08M040   | 4m     |
| 204 | 1200669133 | 888030P02M3008  | 30m    |
| 205 | 1200669134 | 883030H09M015   | 1.5m   |
| 206 | 1200669135 | 883030H09M200   | 20m    |
| 207 | 1200669153 | 883030E03M0101  | 1m     |
| 208 | 1200669161 | 888030H08M150   | 15m    |
| 209 | 1200669212 | 888030H08M050   | 5m     |
| 210 | 1200669310 | 888030H08M005   | 0.5m   |

| No. | MOLEX PN   | Engineering No. | Length |
|-----|------------|-----------------|--------|
| 211 | 1200669311 | 888030H08M008   | 0.8m   |
| 212 | 1200669312 | 888030H08M012   | 1.2m   |
| 213 | 1200669313 | 888030H08M015   | 1.5m   |
| 214 | 1200669314 | 888030H08C250   | 0.25m  |
| 215 | 1200669353 | 888030P02M130   | 13m    |
| 216 | 1200669423 | 884030E03M025   | 2.5m   |
| 217 | 1200669424 | 884030E03M035   | 3.5m   |
| 218 | 1200669437 | 888030H08M200   | 20m    |
| 219 | 1200669477 | 888030E02M300   | 30m    |
| 220 | 1200669478 | 888030E02M400   | 40m    |
| 221 | 1200669479 | 888030E02M500   | 50m    |
| 222 | 1200669499 | 883030E03M080   | 8m     |
| 223 | 1200669500 | 883030E03M120   | 12m    |
| 224 | 1200669501 | 883030E03M140   | 14m    |
| 225 | 1200669502 | 883030E03M160   | 16m    |
| 226 | 1200669503 | 883030E03M180   | 18m    |
| 227 | 1200669508 | 884030E03M080   | 8m     |
| 228 | 1200669509 | 884030E03M140   | 14m    |
| 229 | 1200669510 | 884030E03M160   | 16m    |
| 230 | 1200669511 | 883030E03M060   | 6m     |
| 231 | 1200669561 | 883030E02M050   | 5m     |
| 232 | 1200669350 | 883030H09M030H  | 3m     |
| 233 | 1200669609 | 883030E02M0201  | 2m     |
| 234 | 1200669717 | 884030P03M080   | 8m     |
| 235 | 1200669522 | 883030E03M200   | 20m    |
| 236 | 1200669523 | 883030E03M250   | 25m    |
| 237 | 1200669752 | 884030H09M015H  | 1.5m   |
| 238 | 1200669759 | 884030H09M020H  | 2.0m   |
| 239 | 1200669753 | 884030H09M025H  | 2.5m   |
| 240 | 1200669758 | 884030H09M030H  | 3.0m   |
| 241 |            |                 |        |
| 242 |            |                 |        |
| 243 |            |                 |        |
| 244 |            |                 |        |
| 245 |            |                 |        |

| No. | MOLEX PN   | Engineering No. | Length |
|-----|------------|-----------------|--------|
| 246 | 1200669756 | 885030H09M015H  | 1.5m   |
| 247 | 1200669762 | 885030H09M020H  | 2.0m   |
| 248 | 1200669757 | 885030H09M025H  | 2.5m   |
| 249 | 1200669763 | 885030H09M030H  | 3.0m   |
| 250 | 1200669878 | 884030E03M002H  | 0.2m   |
| 251 | 1200669879 | 884030E03M004H  | 0.4m   |
| 252 | 1200669880 | 884030E03M009H  | 0.9m   |
| 253 | 1200669881 | 884030E03M013H  | 1.3m   |
| 254 | 1200669882 | 884030E03M016H  | 1.6m   |
| 255 | 1200669883 | 884030E03M180H  | 18m    |
| 256 | 1200669884 | 884030E03M800H  | 80m    |
| 257 | 1200669905 | 885030E03M085H  | 8.5m   |
| 258 | 1200669906 | 885030E03M090H  | 9m     |
| 259 | 1200669907 | 885030E03M110H  | 11m    |
| 260 | 1200669926 | 884030H09M065H  | 6.5m   |
| 261 | 1200669927 | 884030H09M070H  | 7.0m   |
| 262 | 1200669931 | 884030H09M075H  | 7.5m   |
| 263 | 1200669932 | 884030H09M080H  | 8.0m   |
| 264 |            |                 |        |
| 265 |            |                 |        |
| 266 |            |                 |        |
| 267 |            |                 |        |
| 268 |            |                 |        |
| 269 |            |                 |        |
| 270 |            |                 |        |
| 271 |            |                 |        |
| 272 |            |                 |        |
| 273 |            |                 |        |
| 274 |            |                 |        |
| 275 |            |                 |        |
| 276 |            |                 |        |
| 277 |            |                 |        |
| 278 |            |                 |        |
| 279 |            |                 |        |
| 280 |            |                 |        |

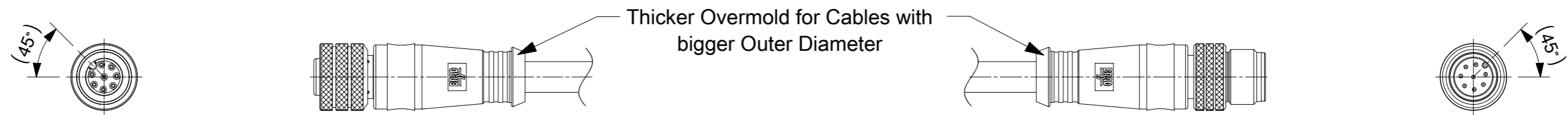
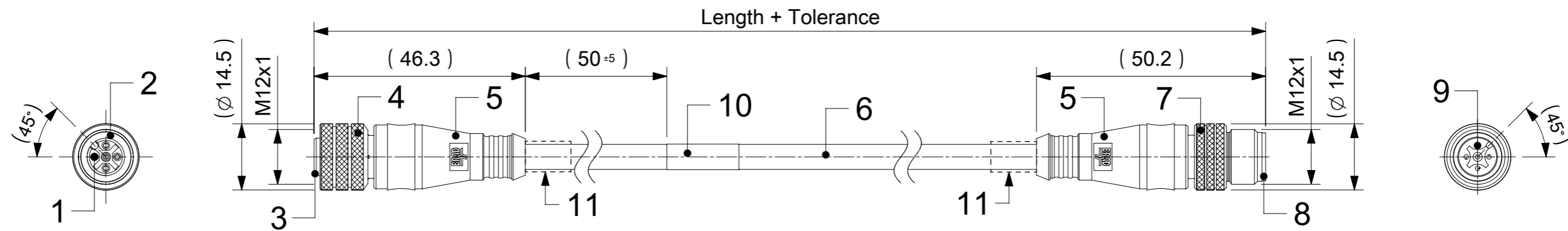
## NOTES:

\* - Part No. with Yellow PVC overmolding

|   |  |   |  |  |  |              |  |                 |  |
|---|--|---|--|--|--|--------------|--|-----------------|--|
| 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: REMOVED OBSOLETE PART NUMBER AS PER PCN#512871.  |  |              |  |                 |  |
| mm  |  | 1:1   |  | <br>CSE M12 XP AC FE STR MA STR XM DE |  |              |  |                 |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |  |   |  |  |  |              |  |                 |  |
| ANGULAR TOL ± 1.0°  |  |   |  |  |  |              |  |                 |  |
| 4 PLACES ±  |  | 3 PLACES ±  |  |  |  |              |  |                 |  |
| 2 PLACES ± 0.05   |  | 1 PLACE ± 0.3   |  |  |  |              |  |                 |  |
| 0 PLACES ± 0.5  |  | INITIAL REVISION:   |  | EC NO: 732259  |  | DRWN: SANTHN |  | 2022/12/20      |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |  | THIRD ANGLE PROJECTION  |  | DRAWING  |  | SERIES       |  | DOCUMENT NUMBER |  |
|   |  |  |  | A3-SIZE  |  | 120066       |  | 1200668084      |  |
|   |  |   |  |  |  |              |  | PSD 000 A15     |  |
|   |  |   |  |  |  |              |  | SHEET NUMBER    |  |
|   |  |   |  |  |  |              |  | 4 OF 4          |  |

|                 |    |              |            |          |
|-----------------|----|--------------|------------|----------|
| DOCUMENT STATUS | P1 | RELEASE DATE | 2022/12/21 | 07:37:48 |
|-----------------|----|--------------|------------|----------|

# FEMALE PLUG M12 STRAIGHT TO MALE PLUG M12 STRAIGHT



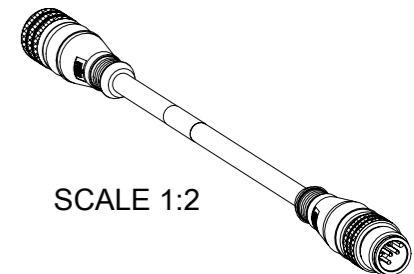
**NOTES:**

- 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          | ---   | 5          | ---   | 5          | GREY OR GREEN/YELLOW | 5          | GREY   |
|             |            |       |            |       |            |                      | 6          | PINK   |
|             |            |       |            |       |            |                      | 7          | BLUE   |
|             |            |       |            |       |            | 8                    | RED        |        |

CODING REQUIRED TO IEC 61076-2-101



FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2

| ITEM | QTY.          | DESCRIPTION             | MATERIAL      | FINISH               |
|------|---------------|-------------------------|---------------|----------------------|
| 11   | SEE SHEET 2   | ID CARRIER              | PVC           | TRANSPARENT          |
| 10   | 1             | LABEL YELLOW            | VINYL         | ---                  |
|      | -             | PRINTING FOR CABLES Ixx | ---           | ---                  |
| 9    | 3 / 4 / 5 / 8 | CONTACT MALE            | SEE PART LIST | SELECTIVE Au OVER Ni |
| 8    | 1             | INSERT MALE BLACK       | TPU           | ---                  |
| 7    | 1             | COUPLING NUT MALE       | ---           | ---                  |
| 6    | -             | CABLE                   | SEE SHEET 2   | ---                  |
| 5    | -             | OVERMOLDING BLACK       | TPU           | ---                  |
| 4    | 1             | COUPLING NUT FEMALE     | ---           | ---                  |
| 3    | 1             | INSERT FEMALE BLACK     | PUR           | ---                  |
| 2    | 1             | ORING RED               | FPM           | ---                  |
| 1    | 3 / 4 / 5 / 8 | CONTACT FEMALE          | SEE PART LIST | SELECTIVE Au OVER Ni |

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DIMENSION UNITS: mm SCALE: 1:1

GENERAL TOLERANCES (UNLESS SPECIFIED):

ANGULAR TOL ± 1.0°

4 PLACES ±

3 PLACES ±

2 PLACES ± 0.05

1 PLACE ± 0.3

0 PLACES ± 0.5

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING: A3-SIZE

SERIES: 120066

MATERIAL NUMBER: SEE PART LIST

CUSTOMER: GENERAL MARKET

SHEET NUMBER: 1 OF 4

EC NO: 734641

DRWN: RSCHIEBER 2022/12/01

CHK'D: RSILLER 2023/01/12

APPR: RSILLER 2023/01/12

INITIAL REVISION:

DRWN: JMARSZALEK 2016/09/19

APPR: RSILLER 2016/12/08

DOCUMENT NUMBER: 1200668165

DOC TYPE: PSD

DOC PART: 000

REVISION: A6

PRODUCT CUSTOMER DRAWING

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

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

## OPTIONS

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  
to Plug Male Straight

Cable type: See Table

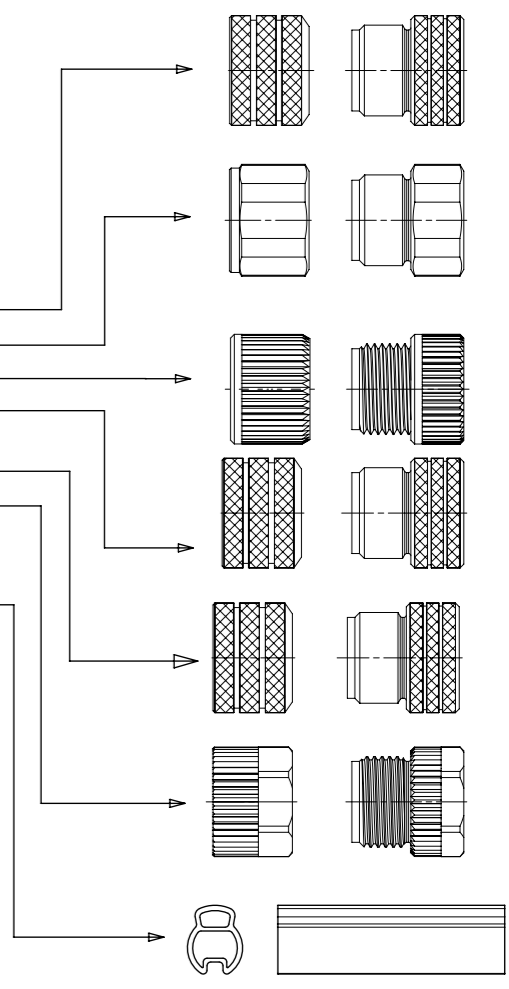
Units:  
M=Meter

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

Coupling Nut:  
Blank (Standard)=Knurled Brass Ni Plated  
1=Hexagonal Stainless steel  
5=Knurled Derlin  
7=Knurled Brass Ni Plated, Teflon Coated  
Blank=7 for cables I20, I26, K03, K05, P82, S26  
8=Type 316 stainless steel  
9=Knurled / Hexagonal Brass Ni Plated SW13  
  
H= 2 pcs. of I/D Carrier PVC Transparent  
(Cables Ixx & P82 always with 2 pcs. of I/D Carrier even if no H in Engineering No.)

Overmold color:  
Blank (Standard)=Black TPU  
Blank=Yellow PVC for cables  
A09, S19, S20, S26  
Blank=Yellow TPE-E for cables  
K03, K05  
A=Grey / G=Black / Y=Yellow

## COUPLING NUT FEMALE MALE




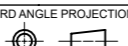
| CABLE LENGTH TOLERANCES |                          |                        |
|-------------------------|--------------------------|------------------------|
| OVER [mm]               | UP TO AND INCLUDING [mm] | TOLERANCES [mm]        |
| 0                       | 305                      | +19  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

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|  |         |                                 |            |                                   |                 |                |
|--|---------|---------------------------------|------------|-----------------------------------|-----------------|----------------|
| DIMENSION UNITS                                      | SCALE   | CURRENT REV DESC: NEW P/N ADDED |            | <b>molex</b>                      |                 |                |
| mm   | 1:1     |                                 |            |                                   |                 |                |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                |         |                                 |            | CSE M12 XP AC FE STR MA STR XM DE |                 |                |
| ANGULAR TOL  | ± 1.0 ° | EC NO: 734641                   |            | PRODUCT CUSTOMER DRAWING          |                 |                |
| 4 PLACES   | ±       | DRWN: RSCHIEBER                 | 2022/12/01 | DOCUMENT NUMBER                   |                 |                |
| 3 PLACES   | ±       | CHK'D: RSILLER                  | 2023/01/12 | 1200668165                        |                 |                |
| 2 PLACES   | ± 0.05  | APPR: RSILLER                   | 2023/01/12 | DOC TYPE                          | DOC PART        | REVISION       |
| 1 PLACE  | ± 0.3   | INITIAL REVISION:               |            | PSD                               | 000             | A6             |
| 0 PLACES   | ± 0.5   | DRWN: JMARSZALEK                | 2016/09/19 | SHEET NUMBER                      |                 |                |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |         | THIRD ANGLE PROJECTION          | DRAWING    | SERIES                            | MATERIAL NUMBER | CUSTOMER       |
|  |         |                                 | A3-SIZE    | 120066                            | SEE PART LIST   | GENERAL MARKET |
|  |         |                                 |            |                                   |                 | 2 OF 4         |

# 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 |
|------------|--------------|---------------------|----------------|----------------|-----------------------|--------------------------------|---------------------------------|----------------------------|--------|
| A09        | 4            | 22AWG               | PVC YELLOW     | UL 2661        | I/II A/B 80°C/300V    | -                              | -                               | -                          | -      |
| B02        | 4            | 18AWG               | PUR YELLOW     | UL 20549       | I/II A/B 80°C/300V    | -                              | -                               | -                          | -      |
| E52        | 3 / 4        | 0.34mm <sup>2</sup> | PVC GREY       | -              | -                     | -30°C to +70°C                 | -5°C to +70°C                   | -                          | -      |
| E57        | 5            | 0.34mm <sup>2</sup> | PVC GREY       | -              | -                     | -                              | -5°C to +70°C                   | -                          | -      |
| I02        | 3 / 4 / 8    | 0.25mm <sup>2</sup> | PVC CEI GREY   | -              | -                     | -30°C to +70°C                 | -5°C to +70°C                   | -                          | -      |
| I03        | 3 / 4 / 5    | 0.34mm <sup>2</sup> | PVC CEI GREY   | -              | -                     | -30°C to +70°C                 | -5°C to +70°C                   | -                          | -      |
| I20        | 3 / 4        | 0.34mm <sup>2</sup> | PVC CEI GREY   | -              | -                     | -30°C to +70°C                 | -5°C to +70°C                   | -                          | YES    |
| I26        | 5            | 0.34mm <sup>2</sup> | PVC CEI GREY   | -              | -                     | -30°C to +70°C                 | -5°C to +70°C                   | -                          | YES    |
| K03        | 4 / 5        | 18AWG               | TPE YELLOW     | UL ITC or PLC  | I/II A/B 90°C/300V    | max 105°C                      | -                               | -                          | -      |
| K05        | 3 / 4 / 5    | 22AWG               | TPE YELLOW     | UL ITC or PLTC | I/II A/B 90°C/300V    | max 105°C                      | -                               | -                          | -      |
| P04        | 4            | 0.50mm <sup>2</sup> | PUR BLACK      | -              | -                     | -40°C to +90°C, >7.5xO.D.      | -15°C to +90°C, >12.5xO.D.      | -                          | -      |
| P19        | 8            | 0.25mm <sup>2</sup> | PUR BLACK      | -              | -                     | -40°C to +90°C, >7.5xO.D.      | -15°C to +90°C, >12.5xO.D.      | 2 000 000 cycles, >15xO.D. | YES    |
| P20        | 3 / 4 / 5    | 0.34mm <sup>2</sup> | PUR BLACK LS0H | -              | -                     | -30°C to +80°C                 | -                               | -                          | YES    |
| P82        | 3 / 4 / 5    | 0.34mm <sup>2</sup> | PUR IRR ORANGE | -              | -                     | -50°C to +105°C, >5xO.D.       | -40°C to +105°C, >7.5xO.D.      | -                          | -      |
| S19        | 8            | 0.25mm <sup>2</sup> | PVC YELLOW     | UL 2661/1569   | C22.2 II A 105°C/300V | -30°C to +105°C, >10xO.D.      | -15°C to +105°C, >15xO.D.       | -                          | YES    |
| S20        | 3 / 4 / 5    | 0.34mm <sup>2</sup> | PVC YELLOW     | UL 2661/1731   | C22.2 II A 105°C/300V | -30°C to +105°C                | -                               | -                          | YES    |
| S26        | 5            | 0.34mm <sup>2</sup> | PVC YELLOW     | UL 2661/1731   | C22.2 II A 105°C/300V | -30°C to +105°C                | -                               | -                          | YES    |

|   |         |  |         |        |                 |                 |  |              |          |          |
|---|---------|--|---------|--------|-----------------|-----------------|--|--------------|----------|----------|
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| DIMENSION UNITS   | SCALE   | CURRENT REV DESC: NEW P/N ADDED  |         |        |                 |                 |  |              |          |          |
| mm  | 1:1     |                 |         |        |                 |                 |  |              |          |          |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |         |  |         |        |                 |                 |  |              |          |          |
| ANGULAR TOL   | ± 1.0 ° | EC NO: 734641<br>DRWN: RSCHIEBER 2022/12/01<br>CHK'D: RSILLER 2023/01/12<br>APPR: RSILLER 2023/01/12 |         |        |                 |                 |  |              |          |          |
| 4 PLACES  | ±       |  |         |        |                 |                 |  |              |          |          |
| 3 PLACES  | ±       | PRODUCT CUSTOMER DRAWING   |         |        |                 |                 |  |              |          |          |
| 2 PLACES  | ± 0.05  |  |         |        |                 |                 |  |              |          |          |
| 1 PLACE   | ± 0.3   | INITIAL REVISION:  |         |        |                 | DOCUMENT NUMBER |  | DOC TYPE     | DOC PART | REVISION |
| 0 PLACES  | ± 0.5   | DRWN: JMARSZALEK 2016/09/19<br>APPR: RSILLER 2016/12/08  |         |        |                 | 1200668165      |  | PSD          | 000      | A6       |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |         | THIRD ANGLE PROJECTION   | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER        |  | SHEET NUMBER |          |          |
|   |         |                 | A3-SIZE | 120066 | SEE PART LIST   | GENERAL MARKET  |  | 3 OF 4       |          |          |

|                 |    |              |            |          |
|-----------------|----|--------------|------------|----------|
| DOCUMENT STATUS | P1 | RELEASE DATE | 2023/01/12 | 11:47:32 |
|-----------------|----|--------------|------------|----------|


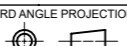
# PART LIST

| No. | Part No.   | Engineering No. | Cable Length |
|-----|------------|-----------------|--------------|
| 1   | 1200070023 | 884030S20M060H  | 6m           |
| 2   | 1200070095 | 883030I03M003   | 0.3m         |
| 3   | 1200070096 | 883030I03M006   | 0.6m         |
| 4   | 1200070097 | 883030I03M010   | 1m           |
| 5   | 1200070098 | 883030I03M020   | 2m           |
| 6   | 1200070099 | 883030I03M030   | 3m           |
| 7   | 1200070100 | 883030I03M050   | 5m           |
| 8   | 1200070101 | 883030I03M100   | 10m          |
| 9   | 1200070110 | 883030S20M010   | 1m           |
| 10  | 1200070111 | 883030S20M020   | 2m           |
| 11  | 1200070480 | 884030I03M010   | 1m           |
| 12  | 1200070481 | 884030I03M020   | 2m           |
| 13  | 1200070483 | 884030I03M050   | 5m           |
| 14  | 1200070484 | 884030I03M060   | 6m           |
| 15  | 1200070485 | 884030I03M100   | 10m          |
| 16  | 1200070499 | 884030S20M020   | 2m           |
| 17  | 1200070500 | 884030S20M030   | 3m           |
| 18  | 1200070502 | 884030S20M050   | 5m           |
| 19  | 1200070504 | 884030S20M100   | 10m          |
| 20  | 1200070597 | 885030S26M010   | 1m           |
| 21  | 1200070653 | 884030E52M200A  | 20m          |
| 22  | 1200070774 | 884030I03M006   | 0.6m         |
| 23  | 1200070785 | 884030I03M030   | 3m           |
| 24  | 1200070867 | 884030E52M100A  | 10m          |
| 25  | 1200070890 | 885030I26M010   | 1m           |
| 26  | 1200070891 | 885030I26M020   | 2m           |
| 27  | 1200070892 | 885030I26M030   | 3m           |
| 28  | 1200070956 | 883030E52M020A  | 2m           |
| 29  | 1200070961 | 885030I03M030   | 3m           |
| 30  | 1200071026 | 884030E52M010A  | 1m           |
| 31  | 1200071035 | 884030S20M010H  | 1m           |
| 32  | 1200071137 | 884030S20M030H  | 3m           |
| 33  | 1200071141 | 884030S20M020H  | 2m           |
| 34  | 1200071161 | 884030S20M100H  | 10m          |
| 35  | 1200071178 | 884030S20M006H  | 0.6m         |
| 36  | 1200071188 | 884030S20M050H  | 5m           |
| 37  | 1200071237 | 884030S20M005H  | 0.5m         |
| 38  | 1200071238 | 884030S20M015H  | 1.5m         |
| 39  | 1200071264 | 884030S20M040H  | 4m           |
| 40  | 1200071272 | 884030S20M005   | 0.5m         |
| 41  | 1200071279 | 885030I26M050   | 5m           |
| 42  | 1200071338 | 884030I20M030   | 3m           |
| 43  | 1200071343 | 883030E52M003A  | 0.3m         |
| 44  | 1200071624 | 884030E52M030A  | 3m           |
| 45  | 1200071627 | 884030I03M0205  | 2m           |
| 46  | 1200072106 | 885030I26M005   | 0.5m         |
| 47  | 1200072359 | 885030I26M015   | 1.5m         |

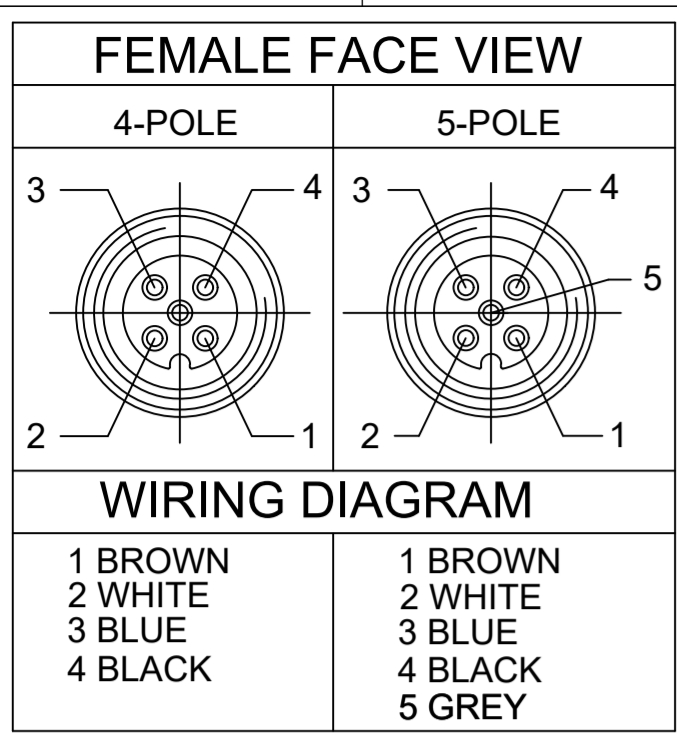
| No. | Part No.   | Engineering No. | Cable Length |
|-----|------------|-----------------|--------------|
| 48  | 1200660271 | 884030A09M020   | 2m           |
| 49  | 1200660273 | 884030A09M0208  | 2m           |
| 50  | 1200660277 | 884030A09M030   | 3m           |
| 51  | 1200660286 | 884030A09M0508  | 5m           |
| 52  | 1200660291 | 884030A09M070   | 7m           |
| 53  | 1200660683 | 884030K05M003   | 0.3m         |
| 54  | 1200660684 | 884030K05M005   | 0.5m         |
| 55  | 1200660686 | 884030K05M006   | 0.6m         |
| 56  | 1200660687 | 884030K05M010   | 1m           |
| 57  | 1200660688 | 884030K05M015   | 1.5m         |
| 58  | 1200660689 | 884030K05M020   | 2m           |
| 59  | 1200660690 | 884030K05M030   | 3m           |
| 60  | 1200660691 | 884030K05M040   | 4m           |
| 61  | 1200660692 | 884030K05M050   | 5m           |
| 62  | 1200660693 | 884030K05M060   | 6m           |
| 63  | 1200660694 | 884030K05M080   | 8m           |
| 64  | 1200660695 | 884030K05M100   | 10m          |
| 65  | 1200660696 | 884030K05M120   | 12m          |
| 66  | 1200660697 | 884030K05M150   | 15m          |
| 67  | 1200660698 | 884030K05M180   | 18m          |
| 68  | 1200660699 | 884030K05M230   | 23m          |
| 69  | 1200660700 | 884030K05M300   | 30m          |
| 70  | 1200660857 | 884030B02M020   | 2m           |
| 71  | 1200660860 | 884030B02M030   | 3m           |
| 72  | 1200660862 | 884030B02M050   | 5m           |
| 73  | 1200660867 | 884030B02M100   | 10m          |
| 74  | 1200660878 | 884030K03M003   | 0.3m         |
| 75  | 1200660880 | 884030K03M006   | 0.6m         |
| 76  | 1200660881 | 884030K03M010   | 1m           |
| 77  | 1200660883 | 884030K03M020   | 2m           |
| 78  | 1200660887 | 884030K03M030   | 3m           |
| 79  | 1200660891 | 884030K03M040   | 4m           |
| 80  | 1200660895 | 884030K03M050   | 5m           |
| 81  | 1200660898 | 884030K03M060   | 6m           |
| 82  | 1200660899 | 884030K03M070   | 7m           |
| 83  | 1200660900 | 884030K03M080   | 8m           |
| 84  | 1200660901 | 884030K03M090   | 9m           |
| 85  | 1200660902 | 884030K03M100   | 10m          |
| 86  | 1200660904 | 884030K03M120   | 12m          |
| 87  | 1200660905 | 884030K03M140   | 14m          |
| 88  | 1200660906 | 884030K03M150   | 15m          |
| 89  | 1200660907 | 884030K03M160   | 16m          |
| 90  | 1200660909 | 884030K03M200   | 20m          |
| 91  | 1200660911 | 884030K03M250   | 25m          |
| 92  | 1200660915 | 884030K05M070   | 7m           |
| 93  | 1200660918 | 884030K05M140   | 14m          |
| 94  | 1200660921 | 884030K05M200   | 20m          |

| No. | Part No.   | Engineering No. | Cable Length |
|-----|------------|-----------------|--------------|
| 95  | 1200660922 | 884030K05M210   | 21m          |
| 96  | 1200661034 | 885030K03M010   | 1m           |
| 97  | 1200661035 | 885030K03M020   | 2m           |
| 98  | 1200661036 | 885030K03M030   | 3m           |
| 99  | 1200661038 | 885030K03M050   | 5m           |
| 100 | 1200661042 | 885030K03M090   | 9m           |
| 101 | 1200661043 | 885030K03M100   | 10m          |
| 102 | 1200661044 | 885030K03M150   | 15m          |
| 103 | 1200661434 | 884030E52M020A  | 2m           |
| 104 | 1200661438 | 884030K05M250   | 25m          |
| 105 | 1200661441 | 884030K05M190   | 19m          |
| 106 | 1200661472 | 884030E52M050A  | 5m           |
| 107 | 1200661543 | 884030K03M180   | 18m          |
| 108 | 1200661574 | 888030S19M120   | 12m          |
| 109 | 1200661575 | 888030S19M030   | 3m           |
| 110 | 1200661576 | 888030S19M050   | 5m           |
| 111 | 1200661577 | 888030S19M100   | 10m          |
| 112 | 1200661664 | 885030K03M005   | 0.5m         |
| 113 | 1200661685 | 885030K03M120   | 12m          |
| 114 | 1200661906 | 884030K03M500   | 50m          |
| 115 | 1200665012 | 885030P82M0307  | 3m           |
| 116 | 1200665368 | 884030K05M280   | 28m          |
| 117 | 1200668001 | 884030K03M110   | 11m          |
| 118 | 1200668003 | 884030K03M005   | 0.5m         |
| 119 | 1200668004 | 884030K03M240   | 24m          |
| 120 | 1200668068 | 884030S20M010   | 1m           |
| 121 | 1200668082 | 885030I26M006   | 0.6m         |
| 122 | 1200668090 | 885030S26M020H  | 2m           |
| 123 | 1200668165 | 885030I03M100   | 10m          |
| 124 | 1200668172 | 883030S20M050   | 5m           |
| 125 | 1200668281 | 885030I26M025   | 2.5m         |
| 126 | 1200668310 | 883030S20M005   | 0.5m         |
| 127 | 1200668371 | 883030I03M040   | 4m           |
| 128 | 1200668372 | 884030I03M040   | 4m           |
| 129 | 1200668505 | 884030P20M010   | 1m           |
| 130 | 1200668506 | 884030P20M020   | 2m           |
| 131 | 1200668507 | 884030P20M050   | 5m           |
| 132 | 1200668508 | 884030P20M100   | 10m          |

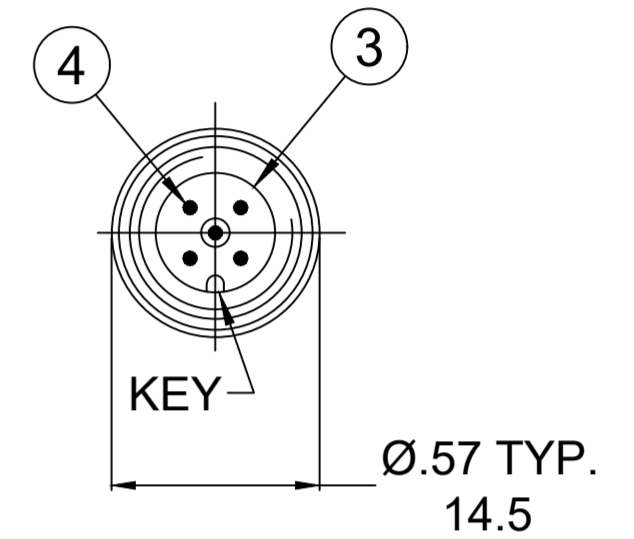
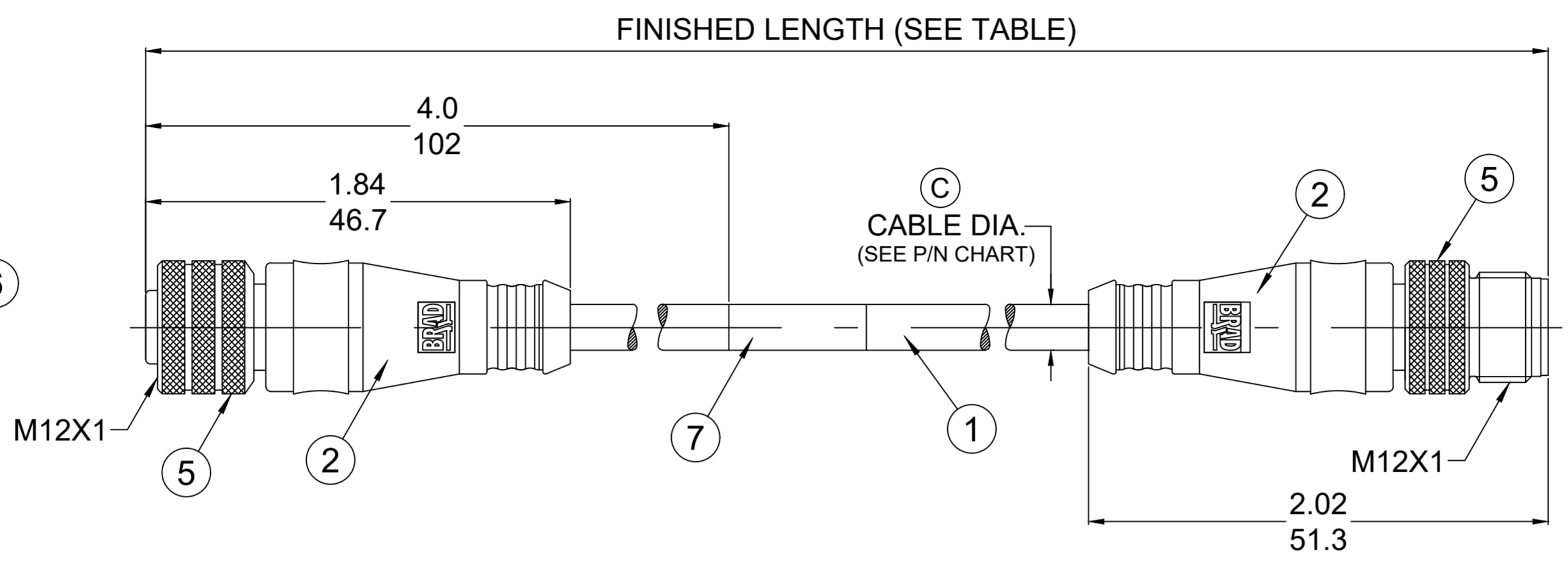
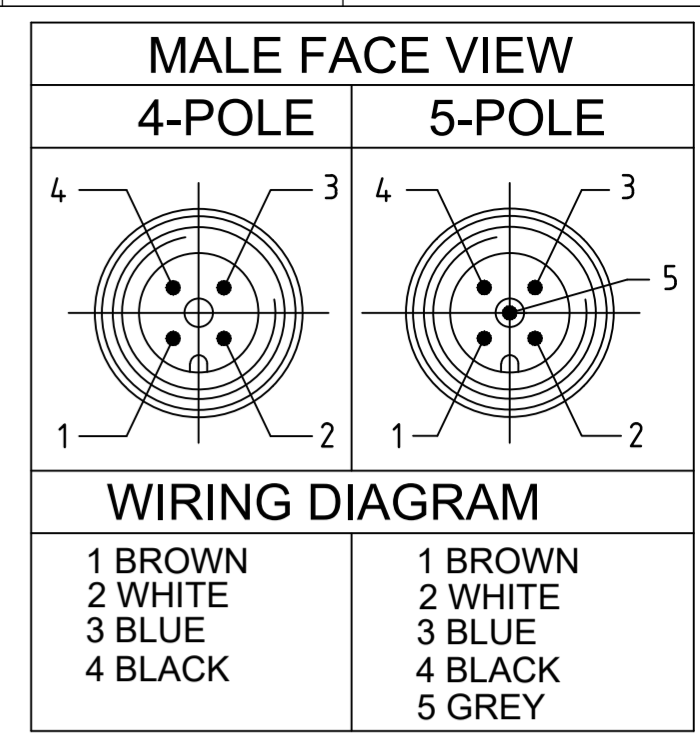
| No. | Part No.   | Engineering No. | Cable Length |
|-----|------------|-----------------|--------------|
| 133 | 1200668615 | 884030K05M050H  | 5m           |
| 134 | 1200668616 | 884030K05M100H  | 10m          |
| 135 | 1200668632 | 883030I03M020Y  | 2m           |
| 136 | 1200668633 | 883030I03M030Y  | 3m           |
| 137 | 1200668634 | 883030I03M050Y  | 5m           |
| 138 | 1200668637 | 884030I03M020Y  | 2m           |
| 139 | 1200668638 | 884030I03M100Y  | 10m          |
| 140 | 1200668639 | 885030I26M010Y  | 1m           |
| 141 | 1200668640 | 885030I26M020Y  | 2m           |
| 142 | 1200668641 | 885030I26M030Y  | 3m           |
| 143 | 1200668642 | 885030I03M030Y  | 3m           |
| 144 | 1200668736 | 885030I26M015Y  | 1.5m         |
| 145 | 1200668773 | 885030P82M0107  | 1m           |
| 146 | 1200668873 | 885030I26M050Y  | 5m           |
| 147 | 1200669113 | 884030A09M0308  | 3m           |
| 148 | 1200669149 | 883030I03M010Y  | 1m           |
| 149 | 1200669218 | 885030I03M100Y  | 10m          |
| 150 | 1200669227 | 884030K05M500   | 50m          |
| 151 | 1200669228 | 884030K05M600   | 60m          |
| 152 | 1200660166 | 883030A09M010   | 1m           |
| 153 | 1200660261 | 884030A09M005   | 0.5m         |
| 154 | 1200660262 | 884030A09M006   | 0.6m         |
| 155 | 1200660266 | 884030A09M010   | 1m           |
| 156 | 1200660269 | 884030A09M015   | 1.5m         |
| 157 | 1200660294 | 884030A09M080   | 8m           |
| 158 | 1200660299 | 884030A09M1008  | 10m          |
| 159 | 1200660434 | 885030A09M050   | 5m           |
| 160 | 1200661037 | 885030K03M040   | 4m           |
| 161 | 1200661039 | 885030K03M060   | 6m           |
| 162 | 1200661041 | 885030K03M080   | 8m           |
| 163 | 1200661684 | 885030K03M300   | 30m          |
| 164 | 1200661686 | 885030K03M180   | 18m          |
| 165 | 1200661687 | 885030K03M230   | 23m          |
| 166 | 1200668081 | 885030E57M100A  | 10m          |
| 167 | 1200669948 | 884030K05M032   | 3.2m         |

|   |  |       |  |   |  |         |  |   |  |                                   |  |
|---|--|-------|--|---|--|---------|--|---|--|-----------------------------------|--|
| 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 ADDED   |  |         |  |  |  | CSE M12 XP AC FE STR MA STR XM DE |  |
| mm  |  | 1:1   |  |   |  |         |  |   |  |                                   |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |  |       |  | EC NO: 734641   |  |         |  | DOCUMENT NUMBER: <b>1200668165</b><br>DOC TYPE: PSD<br>DOC PART: 000<br>REVISION: A6  |  |                                   |  |
| ANGULAR TOL ± 1.0°  |  |       |  | DRWN: RSCHIEBER 2022/12/01  |  |         |  |   |  |                                   |  |
| 4 PLACES ±  |  |       |  | CHK'D: RSILLER 2023/01/12   |  |         |  | PRODUCT CUSTOMER DRAWING  |  |                                   |  |
| 3 PLACES ±  |  |       |  | APPR: RSILLER 2023/01/12  |  |         |  |   |  |                                   |  |
| 2 PLACES ± 0.05   |  |       |  | INITIAL REVISION:   |  |         |  | MATERIAL NUMBER: SEE PART LIST<br>CUSTOMER: GENERAL MARKET<br>SHEET NUMBER: 4 OF 4    |  |                                   |  |
| 1 PLACE ± 0.3   |  |       |  | DRWN: JMARSZALEK 2016/09/19   |  |         |  |   |  |                                   |  |
| 0 PLACES ± 0.5  |  |       |  | APPR: RSILLER 2016/12/08  |  |         |  |   |  |                                   |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |  |       |  | THIRD ANGLE PROJECTION  |  | DRAWING |  | SERIES  |  | MATERIAL NUMBER                   |  |
|   |  |       |  |  |  | A3-SIZE |  | 120066  |  | SEE PART LIST                     |  |





| PART NO    | ENGINEERING NO. | FINISHED LENGTH  | POLES | CABLE DIA. |
|------------|-----------------|------------------|-------|------------|
| 1200660878 | 884030K03M003   | 0.3M [12 IN]     | 4     | .26 [6.6]  |
| 1200662229 | 885030K03M700   | 70M [229FT 8 IN] | 5     | .28 [7.1]  |



- NOTES:
1. MATERIAL: AS NOTED
  2. FINISH: AS NOTED
  3. ELECTRICAL:  
VOLTAGE: 4 & 5P 250V  
CURRENT: 4A
  4. TEMP RATING: -20°TO +105°C
  5. PROTECTION: IP67 (WHEN MATED)
  6. UL RECOGNIZED FILE: E152210  
CSA CERTIFIED FILE: LR6837 (C)
  7. ALL DIMENSIONS ARE FOR REFERENCE  
UNLESS TOLERANCED OR NOTED OTHERWISE

# PART NO. MATRIX 88X030K03XXXX

POLES  
(4, 5)

LENGTH  
M010 = 1 METER  
M050 = 5 METER  
M100 = 10 METER

MECHANICAL CHARACTERISTICS: (C)

|                      |                                    |
|----------------------|------------------------------------|
| TORSIONAL FLEX TEST  | 10 MILLION CYCLES PER MIL-C-13777G |
| BEND FLEX TEST       | 10 MILLION CYCLES PER MIL-C-13777G |
| WELD SLAG RESISTANCE | WOODHEAD STANDARD S-300            |

| ITEM | COMPONENT          | MATERIAL     | FINISH           |
|------|--------------------|--------------|------------------|
| 1    | CABLE-#18/4-5      | TPE JACKET   | YELLOW           |
| 2    | OVERMOLD           | TPC          | YELLOW           |
| 3    | INSERT             | PUR          | BLACK            |
| 4    | SOCKET/PIN CONTACT | COPPER ALLOY | GOLD OVER NICKEL |
| 5    | COUPLER            | BRASS        | TEFLON/NICKEL    |
| 6    | O-RING             | VITON        | RED              |
| 7    | LABEL              | MYLAR        | BLACK/YELLOW     |

(C)

CABLE LENGTH TOLERANCES

|                          |                         |
|--------------------------|-------------------------|
| <.3M [1FT]:              | +19mm-0 [ +.75in-0]     |
| .3 - .9M [1 - 3FT]:      | +44.5mm-0 [+1.75in-0]   |
| .9 - 1.8M [3 - 6FT]:     | +55.6mm-0 [+2.19in-0]   |
| 1.8 - 3.7M [6 - 12FT]:   | +88.9mm-0 [+3.50in-0]   |
| 3.7 - 7.3M [12 - 24FT]:  | +165.1mm-0 [+6.50in-0]  |
| 7.3-14.6M [24 - 48FT]:   | +317.5mm-0 [+12.50in-0] |
| 14.6 - 30.5M [48-100FT]: | +622.3mm-0 [+24.50in-0] |
| OVER 30M [100FT]         | +2% OF FINISHED LENGTH  |

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

FUNCTIONAL SYMBOLS: FA=0, EC=0, EP=0

DIMENSION UNITS: INCH/MM, SCALE: NTS

GENERAL TOLERANCES (UNLESS SPECIFIED):

|             | mm       | INCH  |
|-------------|----------|-------|
| 4 PLACES    | ±----    | ±---- |
| 3 PLACES    | ±----    | ±---- |
| 2 PLACES    | ±----    | ±---- |
| 1 PLACE     | ±----    | ±---- |
| 0 PLACES    | ±----    | ±---- |
| ANGULAR TOL | ± ---- ° |       |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING: C-SIZE

SERIES: 120066

DOCUMENT NUMBER: SD-120066-020

CUSTOMER: GENERAL MARKET

SHEET NUMBER: 1 OF 1

EC NO: 645633  
DRWN: ABENJAMINLW 2020/09/18  
CHK'D: RSTONE 2020/09/29  
APPR: BWOODMAN 2020/10/23

INITIAL REVISION:  
DRWN: LSTEMMLE 2010/02/01  
APPR: FPACHER 2010/02/03

MOLEX  
MICRO-CHANGE CORDSET, M12  
4/5 POLE, FEMALE-MALE, STRAIGHT SINGLE KEY,  
18/4-5 AWG HI-FLEX

PRODUCT CUSTOMER DRAWING

DOC TYPE/DOC PART REVISION: PSD 001 C