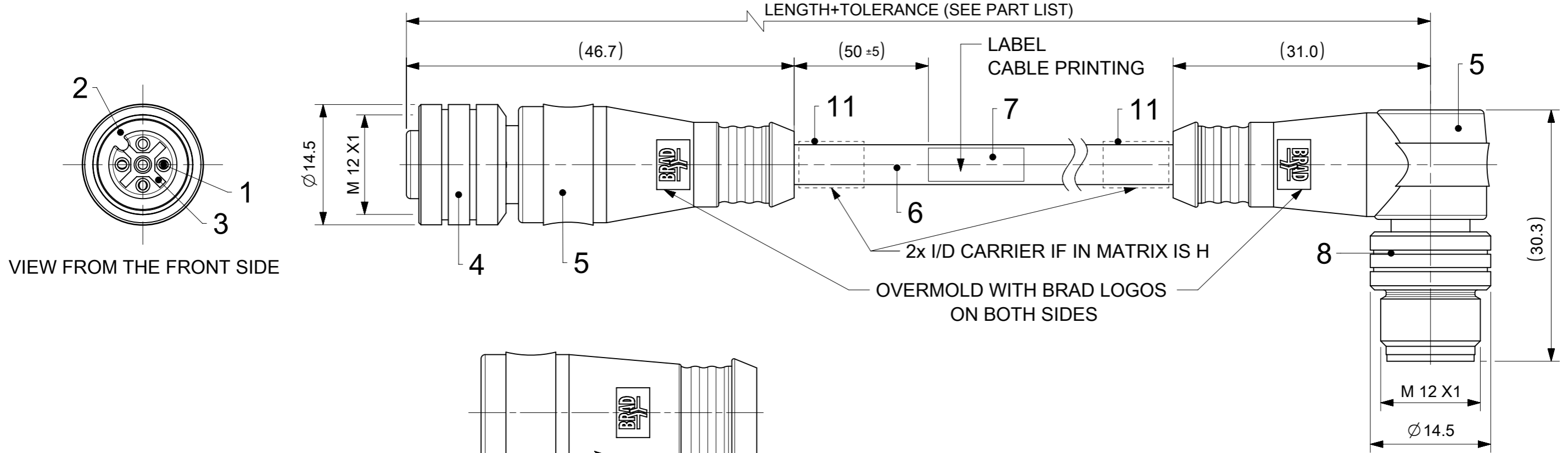


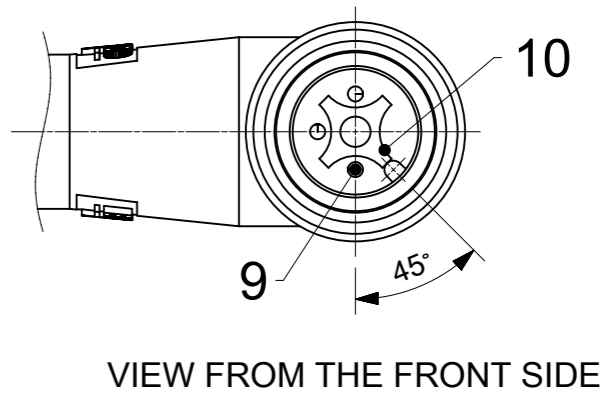
# FEMALE PLUG M12 STRAIGHT TO MALE PLUG M12 90° ANGLED



VIEW FROM THE FRONT SIDE

THICKER OVERMOLD FOR CABLES WITH O.D. BIGGER THAN 6

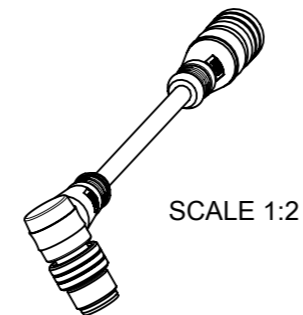
**TECHNICAL SPECIFICATION:**  
 CONTACT CURRENT RATING: 3-5 POLES 4A  
 8 POLES 2A  
 VOLTAGE RATING: 3-4 POLES 250V  
 5 POLES 60V DC  
 8 POLES 30V  
 PROTECTION CLASS: IP 67  
 TEMPERATURE: -25°C / +85°C



VIEW FROM THE FRONT SIDE

**BILL OF MATERIAL**

| ITEM | QTY.           | DESCRIPTION         | MATERIAL                           | FINISH/COLOR               |
|------|----------------|---------------------|------------------------------------|----------------------------|
| 11   | 2 (SEE MATRIX) | ID CARRIER          | PVC                                | TRANSPARENT                |
| 10   | 1              | INSERT MALE         | PUR                                | BLACK                      |
| 9    | 3/4/5/8        | CONTACT M12 MALE    | BRASS                              | SELECTIVE GOLD OVER NICKEL |
| 8    | 1              | COUPLING NUT MALE   | BRASS                              | NICKEL                     |
| 7    | 1              | LABEL               | VINYL                              | YELLOW                     |
| 6    | -              | CABLE               | SEE MATRIX/<br>CABLE SPECIFICATION | ---                        |
| 5    | -              | OVERMOULD           | TPU                                | SEE MATRIX                 |
| 4    | 1              | COUPLING NUT FEMALE | BRASS                              | NICKEL                     |
| 3    | 1              | INSERT FEMALE       | PUR                                | BLACK                      |
| 2    | 1              | O-RING              | FPM                                | RED                        |
| 1    | 3/4/5/8        | CONTACT M12 FEMALE  | BRASS                              | SELECTIVE GOLD OVER NICKEL |
| ITEM | QTY.           | DESCRIPTION         | MATERIAL                           | FINISH/COLOR               |



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: OBSOLETE PART NUMBERS AS PER PCN#510807. |                 | <b>molex</b>                  |  |
| mm   | 2:1    |  |                 |                               |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                |        |  |                 | CSE M12 XP AC FE STR MA RA XM |  |
| ANGULAR TOL  | ± 1.0° |  |                 | PRODUCT CUSTOMER DRAWING      |  |
| 4 PLACES   | ±      | EC NO: 726454  | 2022/09/27      | DOCUMENT NUMBER               |  |
| 3 PLACES   | ±      | DRWN: LIKITV   | 2022/11/30      | DOC TYPE DOC PART REVISION    |  |
| 2 PLACES   | ± 0.05 | CHK'D: GGA   | 2022/11/30      | 1200070026 PSD 000 A7         |  |
| 1 PLACE  | ± 0.3  | APPR: GGA  | 2022/11/30      |                               |  |
| 0 PLACES   | ± 0.5  | INITIAL REVISION:  |                 |                               |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |        | DRWN: DSOPPIN  | 2018/09/27      |                               |  |
| THIRD ANGLE PROJECTION                               |        | APPR: RSILLER  | 2018/10/22      |                               |  |
| DRAWING  |        | SERIES   | MATERIAL NUMBER | CUSTOMER                      |  |
| A3-SIZE  |        | 120007   | SEE PART LIST   | GENERAL MARKET                |  |
| SHEET NUMBER   |        | 1 OF 4   |                 |                               |  |

ENGINEERING NO. - NUMERICAL CODE (Available parts see PART LIST table. Others on request).

8 8 X 0 3 2 X X X X X X X X X X

SPECIAL TYPES

COUPLING NUT FEMALE MALE

88 = M12x1 Double ended

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

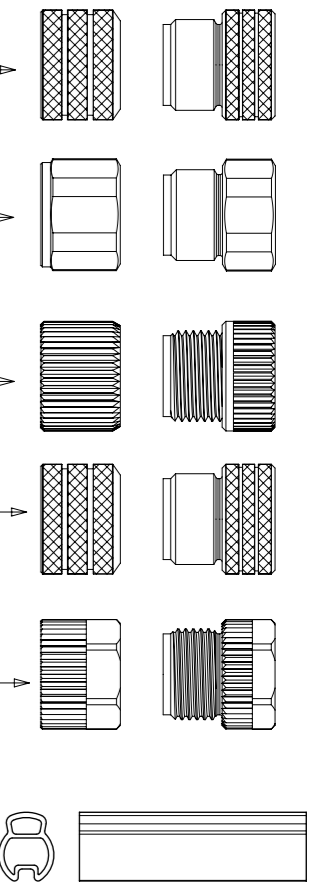
Heads style:  
032 = Plugs FE Straight & Male 90°

Cable types:  
E02=0.25mm<sup>2</sup> PVC Black  
E03=0.34mm<sup>2</sup> PVC Black  
E13=0.75mm<sup>2</sup> PVC Yellow  
E52=0.34mm<sup>2</sup> PVC Grey(RAL 7001)  
E57=0.34mm<sup>2</sup> PVC Grey(RAL 7001)  
H09=0.34mm<sup>2</sup> PUR Black  
H69=0.34mm<sup>2</sup> PUR Grey LSOH SCR  
I02=0.25mm<sup>2</sup> PVC Grey CEI  
I03=0.34mm<sup>2</sup> PVC Grey CEI  
I20=0.25mm<sup>2</sup> PVC Grey CEI SCR DC  
I26=0.34mm<sup>2</sup> PVC Grey CEI SCR AC  
P02=0.25mm<sup>2</sup> PUR/PVC Black  
P03=0.34mm<sup>2</sup> PUR/PVC Black  
P08=0.25mm<sup>2</sup> PUR Yellow HIFLEX  
P20=0.34mm<sup>2</sup> PUR Grey LSOH braid  
P82=0.34mm<sup>2</sup> PUR orange irradiated DC  
S20=0.34mm<sup>2</sup> PVC Yellow SJTO braid

Units:  
C = Centimeter  
M = Meter  
K = Kilometer  
F = Feet

Length Examples:  
020 = 2 M  
060 = 6 M  
100 = 10 M

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:  
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  
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.)



CABLE SPECIFICATION

| 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.         | -   | -      |
| E52        | 4             | 0.34mm <sup>2</sup> | PVC GRAY        | -                   | -                        | - 30 to + 70°C                 | - 5 to + 70°C                   | -   | -      |
| H09        | 3 / 4 / 5     | 0.34mm <sup>2</sup> | PUR BLACK LSOH  | 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 | -      |
| H69        | 4             | 0.2mm <sup>2</sup>  | PUR LSOH        | -                   | -                        | -                              | -40°C to +80°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.         | -   | -      |
| P82        | 4             | 0.34mm <sup>2</sup> | PUR IRR ORANGE  | -                   | -                        | -50°C to +105°C,               | -50°C to +105°C,                | -   | -      |
| I03        | 4             | 0.34mm <sup>2</sup> | PVC GRAY        | -                   | -                        | -30°C to +70°C                 | -5°C to +70°C                   | -   | -      |
| K03        | 4             | AWG18               | TPE YELLOW      | ITC E195601 OR PLTC | AWM I/II A/B FT4 LL54185 | -                              | -40°C to +105°C                 | -   | -      |
| K05        | 4             | 0.34mm <sup>2</sup> | TPE YELLOW      | ITC E195601 OR PLTC | AWM I/II A/B FT4 LL54185 | -                              | -40°C to +105°C                 | -   | -      |
| S20        | 4             | 0.34mm <sup>2</sup> | PVC YELLOW      | UL 2661/1731        | C22.2 AWM II             | -30°C to +105°C                | -40°C to +105°C                 | -   | -      |

CABLE LENGTH TOLERANCE

| OVER  | UPTO AND INCLUDING | TOLERANCE     |
|-------|--------------------|---------------|
| 0     | 305                | +19           |
| 305   | 915                | +45           |
| 915   | 1830               | +56           |
| 1830  | 3660               | +89           |
| 3660  | 7320               | +165          |
| 7320  | 14640              | +317          |
| 14640 | 30500              | +610          |
| 30500 | >                  | +2% OF LENGTH |

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DIMENSION UNITS: mm SCALE: 1:1

GENERAL TOLERANCES (UNLESS SPECIFIED): ANGULAR TOL ± 1.0°

4 PLACES ± 0.15  
3 PLACES ± 0.10  
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: 120007

MATERIAL NUMBER: SEE PART LIST

CUSTOMER: GENERAL MARKET

SHEET NUMBER: 2 OF 4

CURRENT REV DESC: OBSOLETE PART NUMBERS AS PER PCN#510807.

EC NO: 726454  
DRWN: LIKITV 2022/09/27  
CHK'D: GGA 2022/11/30  
APPR: GGA 2022/11/30

INITIAL REVISION:  
DRWN: DSOPPIN 2018/09/27  
APPR: RSILLER 2018/10/22

DOCUMENT NUMBER: 1200070026

DOC TYPE: PSD

DOC PART: 000

REVISION: A7

**molex**

CSE M12 XP AC FE STR MA RA XM

PRODUCT CUSTOMER DRAWING

CONTACT POSITION FRONT VIEW:

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

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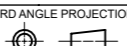
|  |         |  |  |                               |  |
|--|---------|--|--|-------------------------------|--|
| DIMENSION UNITS                                      | SCALE   | CURRENT REV DESC: OBSOLETE PART NUMBERS AS PER PCN#510807. |  | <b>molex</b>                  |  |
| mm   | 1:1     |  |  |                               |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                |         | EC NO: 726454  |  | CSE M12 XP AC FE STR MA RA XM |  |
| ANGULAR TOL  | ± 1.0 ° | DRWN: LIKITV 2022/09/27                                    |  | PRODUCT CUSTOMER DRAWING      |  |
| 4 PLACES   | ±       | CHK'D: GGA 2022/11/30                                      |  | DOCUMENT NUMBER               |  |
| 3 PLACES   | ±       | APPR: GGA 2022/11/30                                       |  | 1200070026                    |  |
| 2 PLACES   | ± 0.05  | INITIAL REVISION:  |  | DOC TYPE                      |  |
| 1 PLACE  | ± 0.3   | DRWN: DSOPPIN 2018/09/27                                   |  | PSD                           |  |
| 0 PLACES   | ± 0.5   | APPR: RSILLER 2018/10/22                                   |  | DOC PART                      |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |         | THIRD ANGLE PROJECTION                                     |  | REVISION                      |  |
|  |         | DRAWING  |  | A7                            |  |
|  |         | SERIES   |  | MATERIAL NUMBER               |  |
|  |         | A3-SIZE  |  | SEE PART LIST                 |  |
|  |         | 120007   |  | CUSTOMER                      |  |
|  |         |  |  | GENERAL MARKET                |  |
|  |         |  |  | SHEET NUMBER                  |  |
|  |         |  |  | 3 OF 4                        |  |

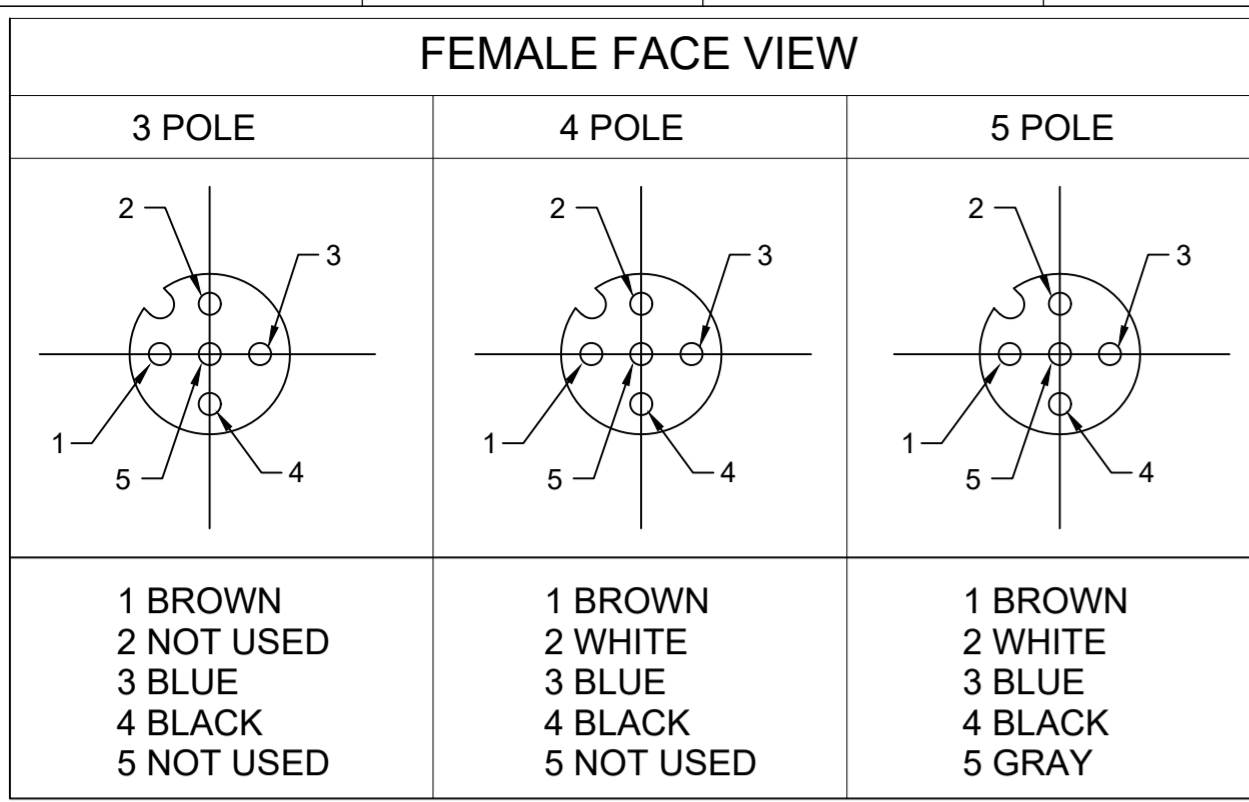
PART LIST

| NO. | MOLEX PN   | ENGINEERING PN | LENGTH (mm) |
|-----|------------|----------------|-------------|
| 1   | 1200070158 | 883032E03M003  | 300         |
| 2   | 1200070159 | 883032E03M006  | 600         |
| 3   | 1200070160 | 883032E03M010  | 1000        |
| 4   | 1200070161 | 883032E03M020  | 2000        |
| 5   | 1200668205 | 883032E03M050  | 5000        |
| 6   | 1200072378 | 883032E03M060  | 6000        |
| 7   | 1200668053 | 883032E03M100  | 10000       |
| 8   | 1200668268 | 883032E03M200  | 20000       |
| 9   | 1200072879 | 883032H09M010  | 1000        |
| 10  | 1200070166 | 883032I03M006  | 600         |
| 11  | 1200668007 | 883032I03M010  | 1000        |
| 12  | 1200070171 | 883032P03M006  | 600         |
| 13  | 1200070172 | 883032P03M010  | 1000        |
| 14  | 1200070173 | 883032P03M020  | 2000        |
| 15  | 1200070174 | 883032P03M030  | 3000        |
| 16  | 1200072294 | 883032P03M0305 | 3000        |
| 17  | 1200668341 | 883032P03M050  | 5000        |
| 18  | 1200668763 | 883032P03M0501 | 5000        |
| 19  | 1200072705 | 883032P03M060  | 6000        |
| 20  | 1200070184 | 883032S20M010  | 1000        |
| 21  | 1200070185 | 883032S20M020  | 2000        |
| 22  | 1200668663 | 884032E02M050  | 5000        |
| 23  | 1200668072 | 884032E03M006  | 600         |
| 24  | 1200668073 | 884032E03M010  | 1000        |
| 25  | 1200668755 | 884032E03M012  | 1200        |
| 26  | 1200668756 | 884032E03M014  | 1400        |
| 27  | 1200665032 | 884032E03M020  | 2000        |
| 28  | 1200071014 | 884032E03M030  | 3000        |
| 29  | 1200072163 | 884032E03M0501 | 5000        |
| 30  | 1200668075 | 884032E03M100  | 10000       |
| 31  | 1200668200 | 884032E03M1001 | 10000       |
| 32  | 1200668307 | 884032E03M1005 | 10000       |
| 33  | 1200668309 | 884032E03M1205 | 12000       |
| 34  | 1200668173 | 884032E03M1501 | 15000       |
| 35  | 1200668223 | 884032E03M200  | 20000       |
| 36  | 1200668308 | 884032E03M2005 | 20000       |
| 37  | 1200071277 | 884032E52M010A | 1000        |
| 38  | 1200070841 | 884032E52M020A | 2000        |
| 39  | 1200668494 | 884032H09M010  | 1000        |
| 40  | 1200668290 | 884032H09M020  | 2000        |
| 41  | 1200668311 | 884032H69M010  | 1000        |
| 42  | 1200668076 | 884032H69M030  | 3000        |
| 43  | 1200668312 | 884032H69M050  | 5000        |
| 44  | 1200665040 | 884032H69M100  | 10000       |
| 45  | 1200072424 | 884032I03M003  | 300         |
| 46  | 1200668522 | 884032I03M020  | 2000        |
| 47  | 1200661012 | 884032K03M006  | 600         |
| 48  | 1200661013 | 884032K03M010  | 1000        |
| 49  | 1200661014 | 884032K03M020  | 2000        |
| 50  | 1200661015 | 884032K03M030  | 3000        |
| 51  | 1200661598 | 884032K03M036  | 3600        |
| 52  | 1200661017 | 884032K03M050  | 5000        |

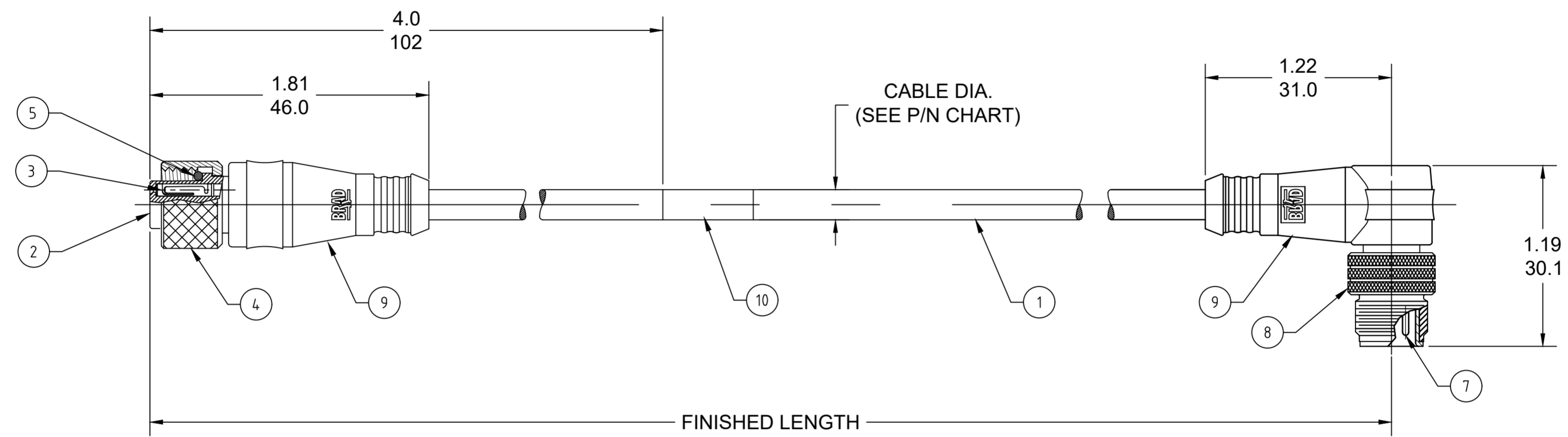
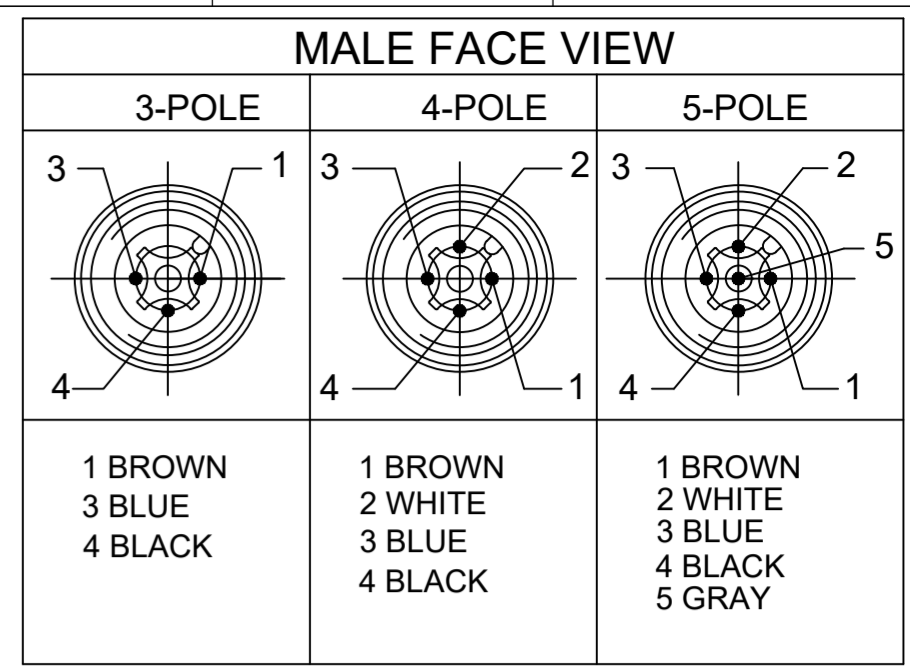
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|-----|------------|----------------|-------------|
| 53  | 1200661018 | 884032K03M060  | 6000        |
| 54  | 1200661021 | 884032K03M090  | 9000        |
| 55  | 1200661022 | 884032K03M100  | 10000       |
| 56  | 1200661023 | 884032K03M120  | 12000       |
| 57  | 1200661480 | 884032K03M200  | 20000       |
| 58  | 1200660398 | 884032K05M005  | 500         |
| 59  | 1200660400 | 884032K05M010  | 1000        |
| 60  | 1200660401 | 884032K05M015  | 1500        |
| 61  | 1200660402 | 884032K05M020  | 2000        |
| 62  | 1200660403 | 884032K05M030  | 3000        |
| 63  | 1200073045 | 884032K05M035  | 3500        |
| 64  | 1200660404 | 884032K05M040  | 4000        |
| 65  | 1200660405 | 884032K05M050  | 5000        |
| 66  | 1200660406 | 884032K05M060  | 6000        |
| 67  | 1200073042 | 884032K05M070  | 7000        |
| 68  | 1200661540 | 884032K05M080  | 8000        |
| 69  | 1200668345 | 884032P03M002G | 200         |
| 70  | 1200072838 | 884032P03M003  | 300         |
| 71  | 1200071519 | 884032P03M006  | 600         |
| 72  | 1200071407 | 884032P03M010  | 1000        |
| 73  | 1200070547 | 884032P03M0105 | 1000        |
| 74  | 1200669261 | 884032P03M015  | 1500        |
| 75  | 1200070026 | 884032P03M020  | 2000        |
| 76  | 1200071520 | 884032P03M030  | 3000        |
| 77  | 1200070914 | 884032P03M050  | 5000        |
| 78  | 1200072213 | 884032P03M1005 | 10000       |
| 79  | 1200668177 | 884032S20M020  | 2000        |
| 80  | 1200668161 | 884032S20M030  | 3000        |
| 81  | 1200070907 | 884032S20M050  | 5000        |
| 82  | 1200668974 | 885032E03M003  | 300         |
| 83  | 1200668979 | 885032E03M006  | 600         |
| 84  | 1200071271 | 885032E03M010  | 1000        |
| 85  | 1200668092 | 885032E03M020  | 2000        |
| 86  | 1200668975 | 885032E03M025  | 2500        |
| 87  | 1200668976 | 885032E03M030  | 3000        |
| 88  | 1200668977 | 885032E03M050  | 5000        |
| 89  | 1200668978 | 885032E03M100  | 10000       |
| 90  | 1200668493 | 885032H09M010  | 1000        |
| 91  | 1200668603 | 885032P03M020G | 2000        |
| 92  | 1200661925 | 885032P03M080  | 8000        |
| 93  | 1200661926 | 885032P03M100  | 10000       |
| 94  | 1200669119 | 885032P03M190  | 19000       |
| 95  | 1200669767 | 888032E02M0201 | 2000        |
| 96  | 1200669768 | 888032E02M0301 | 3000        |
| 97  | 1200669769 | 888032E02M0501 | 5000        |
| 98  | 1200669770 | 888032E02M1001 | 10000       |
| 99  | 1200669892 | 884032E03M009  | 900         |
| 100 | 1200669893 | 884032E03M013  | 1300        |
| 101 | 1200669894 | 884032E03M016  | 1600        |
| 102 | 1200669895 | 884032E03M021  | 2100        |
| 103 | 1200669896 | 884032E03M032  | 3200        |

| NO. | MOLEX PN   | ENGINEERING PN | LENGTH (mm) |
|-----|------------|----------------|-------------|
| 104 | 1200669897 | 884032E03M040  | 4000        |
| 105 | 1200669890 | 884032P03M060  | 6000        |
| 106 | 1200669891 | 884032P03M100  | 10000       |
| 107 |            |                |             |
| 108 |            |                |             |
| 109 |            |                |             |
| 110 |            |                |             |
| 111 |            |                |             |
| 112 |            |                |             |
| 113 |            |                |             |
| 114 |            |                |             |
| 115 |            |                |             |
| 116 |            |                |             |
| 117 |            |                |             |
| 118 |            |                |             |
| 119 |            |                |             |
| 120 |            |                |             |
| 121 |            |                |             |
| 122 |            |                |             |
| 123 |            |                |             |
| 124 |            |                |             |
| 125 |            |                |             |
| 126 |            |                |             |
| 127 |            |                |             |
| 128 |            |                |             |
| 129 |            |                |             |
| 130 |            |                |             |
| 131 |            |                |             |
| 132 |            |                |             |
| 133 |            |                |             |
| 134 |            |                |             |
| 135 |            |                |             |
| 136 |            |                |             |
| 137 |            |                |             |
| 138 |            |                |             |
| 139 |            |                |             |
| 140 |            |                |             |

|   |         |  |            |        |   |                |  |              |  |
|---|---------|--|------------|--------|---|----------------|--|--------------|--|
| 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: OBSOLETE PART NUMBERS AS PER PCN#510807.   |            |        |   |                |  |              |  |
| mm  | 1:1     | <br>CSE M12 XP AC FE STR MA RA XM |            |        |   |                |  |              |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |         |  |            |        |   |                |  |              |  |
| ANGULAR TOL   | ± 1.0 ° | PRODUCT CUSTOMER DRAWING   |            |        |   |                |  |              |  |
| 4 PLACES  | ±       | EC NO: 726454  | 2022/09/27 |        | DOCUMENT NUMBER: 1200070026<br>DOC TYPE: PSD<br>DOC PART: 000<br>REVISION: A7 |                |  |              |  |
| 3 PLACES  | ±       | DRWN: LIKITV   | 2022/11/30 |        |   |                |  |              |  |
| 2 PLACES  | ± 0.05  | CHK'D: GGA   | 2022/11/30 |        | INITIAL REVISION:<br>DRWN: DSOPPIN 2018/09/27<br>APPR: RSILLER 2018/10/22     |                |  |              |  |
| 1 PLACE   | ± 0.3   | APPR: GGA  |            |        |   |                |  |              |  |
| 0 PLACES  | ± 0.5   |  |            |        |   |                |  |              |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |         | THIRD ANGLE PROJECTION   | DRAWING    | SERIES | MATERIAL NUMBER   | CUSTOMER       |  | SHEET NUMBER |  |
|   |         |                                   | A3-SIZE    | 120007 | SEE PART LIST   | GENERAL MARKET |  | 4 OF 4       |  |



| PART NO    | ENGINEERING NO. | FINISHED LENGTH | POLES | CABLE DIA. |
|------------|-----------------|-----------------|-------|------------|
| 1200660228 | 883032K05M005   | 0.5M [1FT 7 IN] | 3     | .20/5.1    |
| 1200662157 | 885032K05M100   | 10M [32FT 9 IN] | 5     | .23/5.8    |
| 1200662223 | 884032K05M200   | 20M [65FT 7 IN] | 4     | .21/5.3    |



- NOTES:
- MATERIAL: AS NOTED
  - FINISH: AS NOTED
  - ELECTRICAL:  
VOLTAGE: 250V  
CURRENT: 4A
  - TEMP RATING: -20°TO +105°C
  - PROTECTION: IP67 (WHEN MATED)
  - COUPLING THREAD: M12X1
  - UL RECOGNIZED FILE: E152210  
CSA CERTIFIED FILE: LR6837
  - ALL DIMENSIONS ARE FOR REFERENCE UNLESS TOLERANCED OR NOTED OTHERWISE

CABLE FLEX CHARACTERISTICS:

|                      |                                    |
|----------------------|------------------------------------|
| 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            |

### PART NO. MATRIX 883032K05M020

| POLES (3,4 & 5) | FINISHED LENGTH  |
|-----------------|------------------|
|                 | M005 = 0.5 METER |
|                 | M010 = 1 METER   |
|                 | M100 = 10 METER  |

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  |

| ITEM | DESCRIPTION    | MATERIAL     | FINISH        |
|------|----------------|--------------|---------------|
| 10   | WRAP LABEL     | VINYL        | BLACK/YELLOW  |
| 9    | OVERMOLD       | TPC          | YELLOW        |
| 8    | COUPLING NUT   | BRASS        | NICKEL PLATED |
| 7    | CONTACT PIN    | COPPER ALLOY | GOLD PLATED   |
| 6    | MALE INSERT    | PUR          | BLACK         |
| 5    | O-RING         | VITON        | RED           |
| 4    | COUPLING NUT   | BRASS        | NICKEL PLATED |
| 3    | CONTACT SOCKET | COPPER ALLOY | GOLD PLATED   |
| 2    | FEMALE INSERT  | PUR          | BLACK         |
| 1    | CABLE 22AWG    | TPE JACKET   | YELLOW        |

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| FUNCTIONAL SYMBOLS | DIMENSION UNITS                                      | SCALE                  | CURRENT REV DESC: ITEM# 9 WAS TPE. UPDATED TEMP RATING. MODIFIED MATERIAL TABLE |
|--------------------|--|------------------------|---|
| $F_A=0$            | INCH/MM  | NTS                    |   |
| $F_C=0$            | GENERAL TOLERANCES (UNLESS SPECIFIED)                |                        |   |
| $F_P=0$            |  |                        |   |
|                    |  | 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 SERIES  |
|                    |  |                        | C-SIZE 120066   |

|                   |            |  |
|-------------------|------------|--|
| EC NO: 645633     | 2020/09/18 | <br>MICRO-CHANGE CORDSET, M12<br>3/4/5 POLE, FE STR/MA 90, SINGLE KEY,<br>22 AWG HI-FLEX |
| DRWN: ABENJAMINLW | 2020/09/29 |  |
| CHK'D: RSTONE     | 2020/10/23 |  |
| APPR: BWOODMAN    | 2020/10/23 | PRODUCT CUSTOMER DRAWING   |
| INITIAL REVISION: |            | DOCUMENT NUMBER  |
| DRWN: LSTEMMLE    | 2010/02/01 | SD-120066-025  |
| APPR: FPACHER     | 2010/02/03 | DOC TYPE/DOC PART/REVISION   |
|                   |            | PSD 001 E  |
|                   |            | MATERIAL NUMBER  |
|                   |            | SEE CHART  |
|                   |            | CUSTOMER   |
|                   |            | GENERAL MARKET   |
|                   |            | SHEET NUMBER   |
|                   |            | 1 OF 1   |