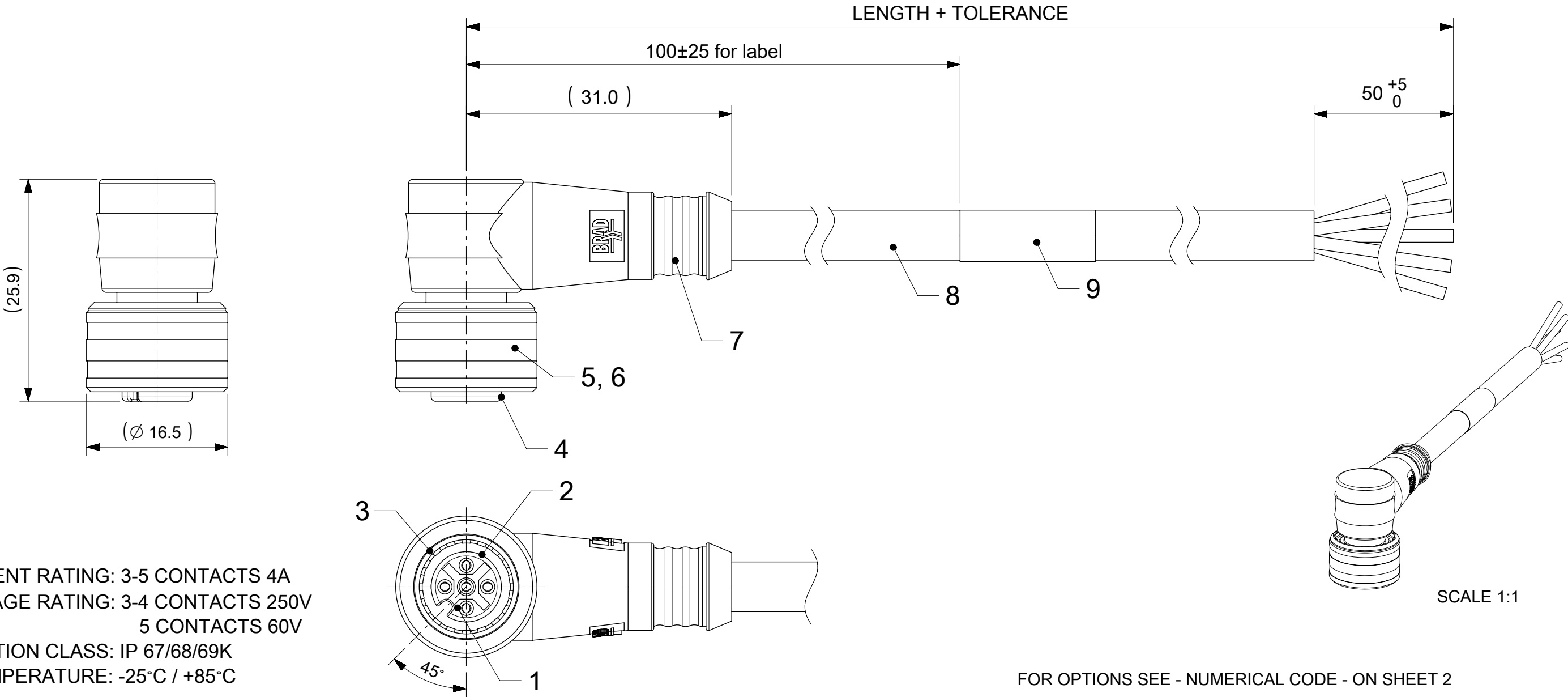


FEMALE PLUG ULTRA LOCK U12 90° ANGLED



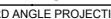
NOTES:  
CURRENT RATING: 3-5 CONTACTS 4A  
VOLTAGE RATING: 3-4 CONTACTS 250V  
5 CONTACTS 60V  
PROTECTION CLASS: IP 67/68/69K  
TEMPERATURE: -25°C / +85°C

CONTACTS POSITION FRONT VIEW:

| 3 CONTACTS                          |       | 4 CONTACTS |       | 5 CONTACTS |       |
|-------------------------------------|-------|------------|-------|------------|-------|
|                                     |       |            |       |            |       |
| PIN                                 | WIRE  | PIN        | WIRE  | PIN        | WIRE  |
| 1                                   | BROWN | 1          | BROWN | 1          | BROWN |
| 2                                   | ---   | 2          | WHITE | 2          | WHITE |
| 3                                   | BLUE  | 3          | BLUE  | 3          | BLUE  |
| 4                                   | BLACK | 4          | BLACK | 4          | BLACK |
| 5                                   | ---   | 5          | ---   | 5          | GREY  |
| CODING ACCORDING TO IEC 61076-2-101 |       |            |       |            |       |

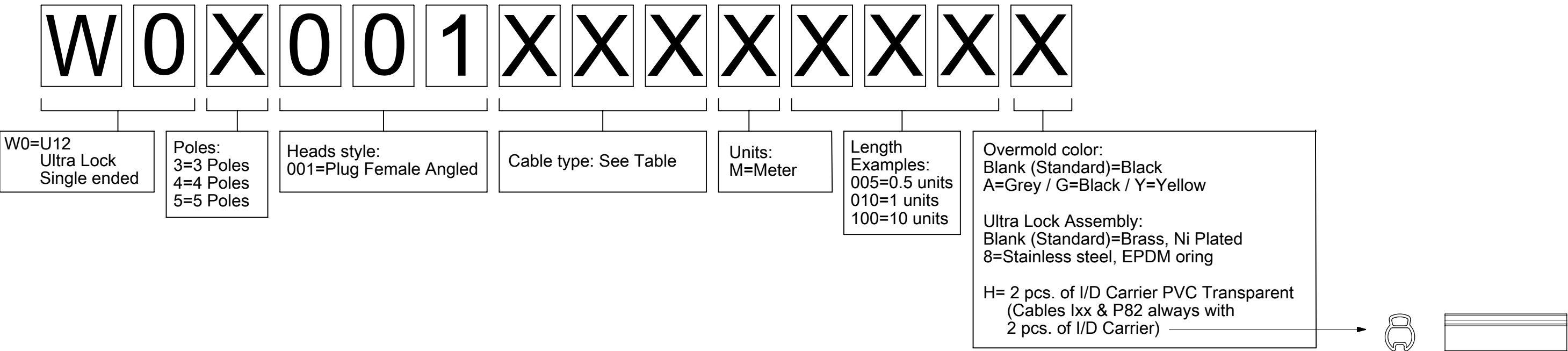
FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2

|      |           |                     |             |                            |
|------|-----------|---------------------|-------------|----------------------------|
| 9    | 1         | LABEL YELLOW        | VINYL       | ---                        |
| 8    | -         | CABLE               | SEE SHEET 2 | ---                        |
| 7    | -         | OVERMOULD BLACK     | TPU         | ---                        |
| 6    | 1         | SLEEVE U12 INNER    | BRASS       | NICKEL                     |
| 5    | 1         | SLEEVE U12 OUTER    | BRASS       | NICKEL                     |
| 4    | 1         | INSERT FEMALE BLACK | PUR         | ---                        |
| 3    | 1         | SPRING U12          | V4A         | ---                        |
| 2    | 1         | ORING GREEN         | FPM         | ---                        |
| 1    | 3 / 4 / 5 | CONTACT M12 FEMALE  | BRONZE      | SELECTIVE GOLD OVER NICKEL |
| ITEM | QTY.      | DESCRIPTION         | MATERIAL    | FINISH                     |

|                                                                                                                                               |  |        |  |                                                                                           |  |         |        |                        |  |                |          |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--|--------|--|-------------------------------------------------------------------------------------------|--|---------|--------|------------------------|--|----------------|----------|-----------------|
| 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<br>AS PER PCN#506884                              |  |         |        | <div>molex</div>       |  |                |          |                 |
| mm                                                                                                                                            |  | 2:1    |  |                                                                                           |  |         |        |                        |  |                |          |                 |
| GENERAL TOLERANCES<br>(UNLESS SPECIFIED)                                                                                                      |  |        |  | EC NO: 662770<br>DRWN: SUGEEB 2021/02/26<br>CHK'D: GGA 2021/06/02<br>APPR: GGA 2021/06/02 |  |         |        |                        |  |                |          |                 |
| ANGULAR TOL ± 1.0 °                                                                                                                           |  |        |  |                                                                                           |  |         |        |                        |  |                |          |                 |
| 4 PLACES                                                                                                                                      |  | ±      |  |                                                                                           |  |         |        |                        |  |                |          |                 |
| 3 PLACES                                                                                                                                      |  | ±      |  |                                                                                           |  |         |        |                        |  |                |          |                 |
| 2 PLACES                                                                                                                                      |  | ± 0.05 |  |                                                                                           |  |         |        |                        |  |                |          |                 |
| 1 PLACE                                                                                                                                       |  | ± 0.3  |  | PRODUCT CUSTOMER DRAWING                                                                  |  |         |        |                        |  |                |          |                 |
| 0 PLACES                                                                                                                                      |  | ± 0.5  |  |                                                                                           |  |         |        |                        |  |                |          |                 |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                    |  |        |  | INITIAL REVISION:<br>DRWN: JMARSZALEK 2016/06/22<br>APPR: RSILLER 2016/06/29              |  |         |        | DOCUMENT NUMBER        |  | DOC TYPE       | DOC PART | REVISION        |
|                                                                                                                                               |  |        |  |                                                                                           |  |         |        | 1200790281             |  | PSD            | 000      | A5              |
|                                                                                                                                               |  |        |  |                                                                                           |  |         |        | THIRD ANGLE PROJECTION |  | DRAWING        | SERIES   | MATERIAL NUMBER |
|                                                          |  |        |  |                                                                                           |  | A3-SIZE | 120079 | SEE SHEET2             |  | GENERAL MARKET |          | 1 OF 2          |

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

## OPTIONS



## 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 |
|------------|--------------|---------------------|-----------------|----------------|-------------------------|--------------------------------|---------------------------------|---------------------------------|--------|
| E03        | 3 / 4 / 5    | 0.34mm <sup>2</sup> | PVC BLACK       | UL 2464/1729   | C22.2 I/II A/B 80°/300V | -30°C to +80°C, 10xO.D.        | -10°C to +80°C, 15xO.D.         | -                               | -      |
| H09        | 3 / 4 / 5    | 0.34mm <sup>2</sup> | PUR BLACK LS0H  | UL 21198/10493 | C22.2 I/II A/B 80°/300V | -40°C to +80°C, 5xO.D.         | -25°C to +80°C, 10xO.D.         | 2 000 000 cycles, Temp max 60°C | -      |
| 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.          | -                               | -      |

## PART LIST

| No. | Molex P/N  | Engineering no. | Cable Length | No. | Molex P/N  | Engineering no. | Cable Length |
|-----|------------|-----------------|--------------|-----|------------|-----------------|--------------|
| 1   | 1200200003 | W04001E03M005   | 0.5m         | 21  | 1200798051 | W04001H09M020   | 2m           |
| 2   | 1200790269 | W04001E03M020   | 2m           | 22  | 1200798100 | W05001H09M350   | 35m          |
| 3   | 1200790272 | W04001E03M100   | 10m          | 23  | 1200798122 | W05001H09M030   | 3m           |
| 4   | 1200790281 | W05001E03M020   | 2m           | 24  | 1200798143 | W03001E03M020   | 2m           |
| 5   | 1200790282 | W05001E03M040   | 4m           | 25  | 1200798144 | W03001E03M050   | 5m           |
| 6   | 1200795042 | W04001E03M050   | 5m           | 26  | 1200798145 | W03001E03M100   | 10m          |
| 7   | 1200795044 | W05001E03M050   | 5m           | 27  | 1200798159 | W05001H09M050   | 5m           |
| 8   | 1200795071 | W04001P03M040   | 4m           | 28  |            |                 |              |
| 9   | 1200795072 | W04001P03M100   | 10m          | 29  |            |                 |              |
| 10  | 1200795073 | W04001P03M060   | 6m           | 30  |            |                 |              |
| 11  | 1200795088 | W05001P03M020   | 2m           | 31  |            |                 |              |
| 12  | 1200795089 | W05001P03M040   | 4m           | 32  |            |                 |              |
| 13  | 1200795090 | W05001P03M050   | 5m           | 33  |            |                 |              |
| 14  | 1200795091 | W05001P03M060   | 6m           | 34  |            |                 |              |
| 15  | 1200795092 | W05001P03M100   | 10m          | 35  |            |                 |              |
| 16  | 1200798007 | W04001P03M050   | 5m           | 36  |            |                 |              |
| 17  | 1200798013 | W04001P03M020   | 2m           | 37  |            |                 |              |
| 18  | 1200798040 | W04001E03M010   | 1m           | 38  |            |                 |              |
| 19  | 1200798047 | W03001H09M020   | 2m           | 39  |            |                 |              |
| 20  | 1200798048 | W05001H09M020   | 2m           | 40  |            |                 |              |

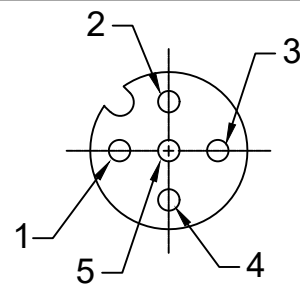
## CABLE LENGTH TOLERANCES

| OVER    | UP TO AND INCLUDING | TOLERANCES             |
|---------|---------------------|------------------------|
| 0       | 305mm               | +19mm                  |
| 305mm   | 915mm               | +45mm                  |
| 915mm   | 1830mm              | +56mm                  |
| 1830mm  | 3660mm              | +89mm                  |
| 3660mm  | 7320mm              | +165mm                 |
| 7320mm  | 14640mm             | +317mm                 |
| 14640mm | 30500mm             | +610mm                 |
| 30500mm | >                   | +2% of finished length |

|                                                                                                                                               |        |                                                                                                                 |  |                                                              |  |                            |  |                              |    |        |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------|--|----------------------------|--|------------------------------|----|--------|--|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |        |                                                                                                                 |  |                                                              |  |                            |  |                              |    |        |  |
| DIMENSION UNITS<br><b>mm</b>                                                                                                                  |        | SCALE<br><b>1:1</b>                                                                                             |  | CURRENT REV DESC: OBSOLETE PART NUMBERS<br>AS PER PCN#506884 |  | <b>molex</b>               |  |                              |    |        |  |
| GENERAL TOLERANCES<br>(UNLESS SPECIFIED)                                                                                                      |        | EC NO: 662770<br>DRWN: SUGEEB 2021/02/26<br>CHK'D: GGA 2021/06/02<br>APPR: GGA 2021/06/02                       |  |                                                              |  |                            |  |                              |    |        |  |
| ANGULAR TOL ± 1.0°                                                                                                                            |        |                                                                                                                 |  |                                                              |  |                            |  |                              |    |        |  |
| 4 PLACES                                                                                                                                      | ±      |                                                                                                                 |  |                                                              |  |                            |  |                              |    |        |  |
| 3 PLACES                                                                                                                                      | ±      |                                                                                                                 |  |                                                              |  |                            |  |                              |    |        |  |
| 2 PLACES                                                                                                                                      | ± 0.05 | INITIAL REVISION:                                                                                               |  | DOCUMENT NUMBER                                              |  | DOC TYPE DOC PART REVISION |  |                              |    |        |  |
| 1 PLACE                                                                                                                                       | ± 0.3  | DRWN: JMARSZALEK 2016/06/22                                                                                     |  | 1200790281                                                   |  | PSD                        |  | 000                          | A5 |        |  |
| 0 PLACES                                                                                                                                      | ± 0.5  | APPR: RSILLER 2016/06/29                                                                                        |  | MATERIAL NUMBER                                              |  | CUSTOMER                   |  | SHEET NUMBER                 |    |        |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                    |        | THIRD ANGLE PROJECTION<br> |  | DRAWING<br>A3-SIZE                                           |  | SERIES<br>120079           |  | SEE SHEET2<br>GENERAL MARKET |    | 2 OF 2 |  |

FEMALE FACE VIEW

## 5-POLE



## WIRING DIAGRAM

1 BROWN  
2 WHITE  
3 BLUE  
4 BLACK  
5 GRAY

NOTES:

1. MATERIAL: SEE TABLE

2. FINISH: SEE TABLE

### 3. ELECTRICAL:

VOLTAGE: 250V

CURRENT: 4A

4. TEMP RATING: -20°TO +105°C<sup>(B)</sup>

5. PROTECTION: IP67/69K (WHEN MATED)

6. CSA CERTIFIED FILE: LR6837 (B)

7. ALL DIMENSIONS ARE FOR REFERENCE

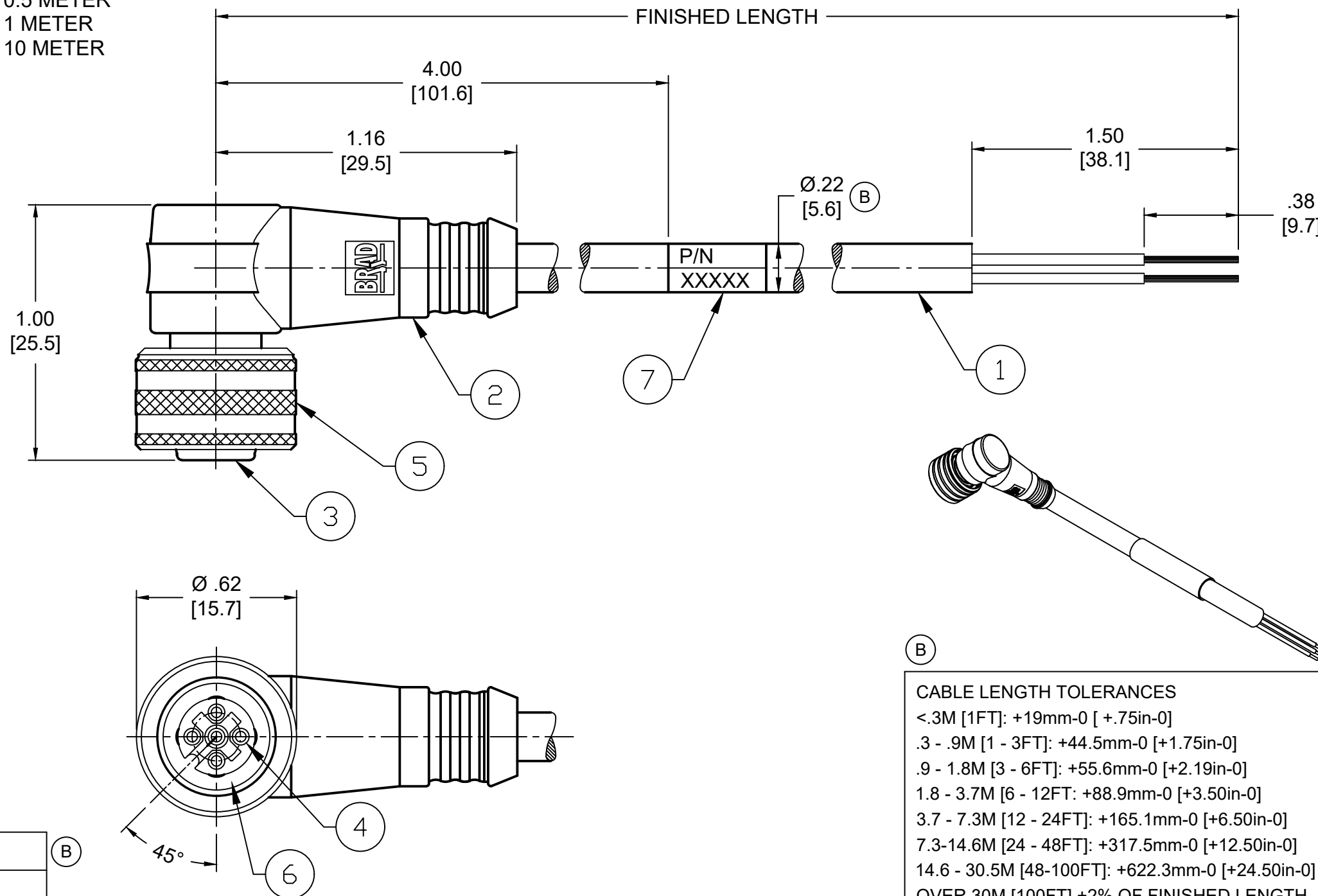
UNLESS TOLERANCED OR NOTED OTHERWISE

|      |                |              |                  |
|------|----------------|--------------|------------------|
| 7    | WRAP LABEL     | VINYL        | BLACK/YELLOW     |
| 6    | O-RING         | VITON        | GREEN            |
| 5    | COUPLER        | BRASS        | NICKEL PLATED    |
| 4    | CONTACT SOCKET | COPPER ALLOY | GOLD OVER NICKEL |
| 3    | INSERT         | PUR          | BLACK            |
| 2    | OVERMOLD       | PUR          | YELLOW           |
| 1    | #22/5 CABLE    | PVC          | YELLOW           |
| ITEM | DESCRIPTION    | MATERIAL     | FINISH           |

|                 |    |              |            |          |
|-----------------|----|--------------|------------|----------|
| DOCUMENT STATUS | P1 | RELEASE DATE | 2022/04/16 | 16:04:41 |
|-----------------|----|--------------|------------|----------|

PART NUMBER LEGEND  
W05001A09M020

FINISHED LENGTH  
M005 = 0.5 METER  
M010 = 1 METER  
M100 = 10 METER



| PART NO    | ENGINEERING NO. | FINISHED LENGTH  |
|------------|-----------------|------------------|
| 1200790223 | W05001A09M020   | 2M [ 6FT 7 IN ]  |
| 1200790203 | W05001A09M050   | 5M [16FT 5 IN]   |
| 1200790205 | W05001A09M100   | 10M [32FT 10 IN] |

### 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  |

|                                                      |                                                                                                                                               |          |       |                        |                                                                                                               |                          |  |                  |  |                                                                               |  |                            |  |                        |  |               |  |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------|--|------------------|--|-------------------------------------------------------------------------------|--|----------------------------|--|------------------------|--|---------------|--|
| 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: ADDED ITEM-7, CSA NUMBER, PN LEGEND, CABLE DIA & TOL CHART. MODIFIED MATERIAL NUMBER CHART. |                          |  |                  |  | <div>molex</div>                                                              |  |                            |  |                        |  |               |  |
|                                                      | INCH/MM                                                                                                                                       |          | NTS   |                        |                                                                                                               |                          |  |                  |  |                                                                               |  |                            |  |                        |  |               |  |
|                                                      | GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                         |          |       |                        | EC NO: 702709<br>DRWN: ABENJAMINLW 2021/09/24<br>CHK'D: RSTONE 2022/04/11<br>APPR: BWOODMAN 2022/04/16        |                          |  |                  |  | MICRO-CHANGE ULTRA LOCK, M12<br>5-POLE, FEMALE, 90DEG, SINGLE KEY,<br>#22 AWG |  |                            |  |                        |  |               |  |
|                                                      |                                                                                                                                               | mm       | INCH  |                        |                                                                                                               |                          |  |                  |  |                                                                               |  |                            |  |                        |  |               |  |
|                                                      | 4 PLACES                                                                                                                                      |          | ±---- | ±----                  | INITIAL REVISION:<br>DRWN: TWOLDEGE 2009/07/06<br>APPR: JFMURPHY 2009/07/20                                   |                          |  |                  |  | DOCUMENT NUMBER<br>SD-120079-012                                              |  | DOC TYPE<br>PSD            |  | DOC PART<br>001        |  | REVISION<br>B |  |
|                                                      | 3 PLACES                                                                                                                                      |          | ±---- | ±----                  |                                                                                                               |                          |  |                  |  |                                                                               |  |                            |  |                        |  |               |  |
|                                                      | 2 PLACES                                                                                                                                      |          | ±---- | ±----                  |                                                                                                               |                          |  |                  |  |                                                                               |  |                            |  |                        |  |               |  |
|                                                      | DIVISIONAL SYMBOLS                                                                                                                            | 1 PLACE  |       | ±----                  | ±----                                                                                                         | PRODUCT CUSTOMER DRAWING |  |                  |  |                                                                               |  |                            |  |                        |  |               |  |
|                                                      |                                                                                                                                               | 0 PLACES |       | ±----                  | ±----                                                                                                         |                          |  |                  |  |                                                                               |  |                            |  |                        |  |               |  |
| ANGULAR TOL ± ---- °                                 |                                                                                                                                               |          |       |                        |                                                                                                               |                          |  |                  |  |                                                                               |  |                            |  |                        |  |               |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                                                                                                                                               |          |       | THIRD ANGLE PROJECTION |                                                                                                               | DRAWING<br>A3-SIZE       |  | SERIES<br>120079 |  | MATERIAL NUMBER<br>SEE CHART                                                  |  | CUSTOMER<br>GENERAL MARKET |  | SHEET NUMBER<br>1 OF 1 |  |               |  |