

4

3

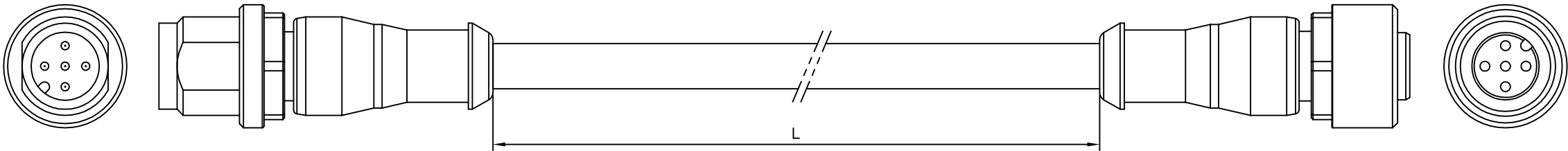
2

1

|                              |                                     |
|------------------------------|-------------------------------------|
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| LOC | DIST | REVISIONS |     |                 |           |      |
|-----|------|-----------|-----|-----------------|-----------|------|
|     |      | P         | LTR | DESCRIPTION     | DATE      | APVD |
| H   | —    |           | A   | INITIAL RELEASE | 22DEC2014 | BvH  |
|     |      |           | B   | ECR-15-007034   | 07MAY2015 | BvH  |
|     |      |           | B1  | ECR-15-008302   | 02JUN2015 | BvH  |

NOTES:  
Tolerances cable lengths:  
0m to 0.5m +30mm  
0.5m to 1.0m +50mm  
1.0m to 3.0m +100mm  
< 3.0m +1.5%

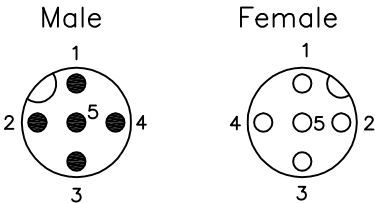


| Mechanical data |                                                                      |
|-----------------|----------------------------------------------------------------------|
| Housing:        | M12 female straight, black                                           |
| Screw:          | M12x1 zinc pressure die casting surface Ni                           |
| Connection:     | pluggable screw locking A/F 13<br>recommended breakaway torque 0.6Nm |
| Temp. range:    | -25°C to +85°C (for connector)                                       |
| Protection:     | IP67                                                                 |

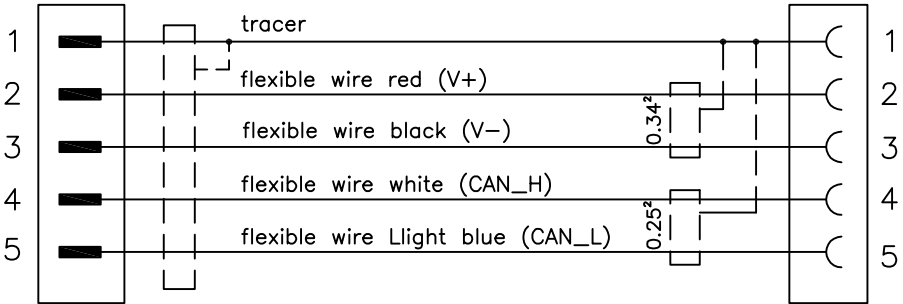
| Electrical data       |                                      |
|-----------------------|--------------------------------------|
| Nominal voltage:      | max. 60V AC/DC (UL rating 30V AC/DC) |
| Rated current:        | max. 4A per contact                  |
| Rated impuls voltage: | 1.5kV                                |
| Pollution degree:     | 3                                    |
| Material group:       | Categorie I according to IEC 60664-1 |
| Fieldbus:             | CANopen / DeviceNet                  |

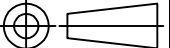
|            |        |          |              |             |                  |      |
|------------|--------|----------|--------------|-------------|------------------|------|
| 5 pos      | 75mtr  | PUR      | BLACK        | 1-2289297-6 | 5x22AWG PUR 75m  | 16   |
|            | 60mtr  |          |              | 1-2289297-5 | 5x22AWG PUR 60m  | 15   |
|            | 45mtr  |          |              | 1-2289297-4 | 5x22AWG PUR 45m  | 14   |
|            | 35mtr  |          |              | 1-2289297-3 | 5x22AWG PUR 35m  | 13   |
|            | 25mtr  |          |              | 1-2289297-2 | 5x22AWG PUR 25m  | 12   |
|            | 20mtr  |          |              | 1-2289297-1 | 5x22AWG PUR 20m  | 11   |
|            | 15mtr  |          |              | 1-2289297-0 | 5x22AWG PUR 15m  | 10   |
|            | 13mtr  |          |              | 2289297-9   | 5x22AWG PUR 13m  | 9    |
|            | 12mtr  |          |              | 2289297-8   | 5x22AWG PUR 12m  | 8    |
|            | 10mtr  |          |              | 2289297-7   | 5x22AWG PUR 10m  | 7    |
|            | 9mtr   |          |              | 2289297-6   | 5x22AWG PUR 9m   | 6    |
|            | 7.5mtr |          |              | 2289297-5   | 5x22AWG PUR 7.5m | 5    |
|            | 6mtr   |          |              | 2289297-4   | 5x22AWG PUR 6m   | 4    |
|            | 4.5mtr |          |              | 2289297-3   | 5x22AWG PUR 4.5m | 3    |
|            | 3mtr   |          |              | 2289297-2   | 5x22AWG PUR 3m   | 2    |
|            | 1.5mtr |          |              | 2289297-1   | 5x22AWG PUR 1.5m | 1    |
| LENGTH "L" |        | MATERIAL | JACKET COLOR | TE PN       | DESCRIPTION      | ITEM |

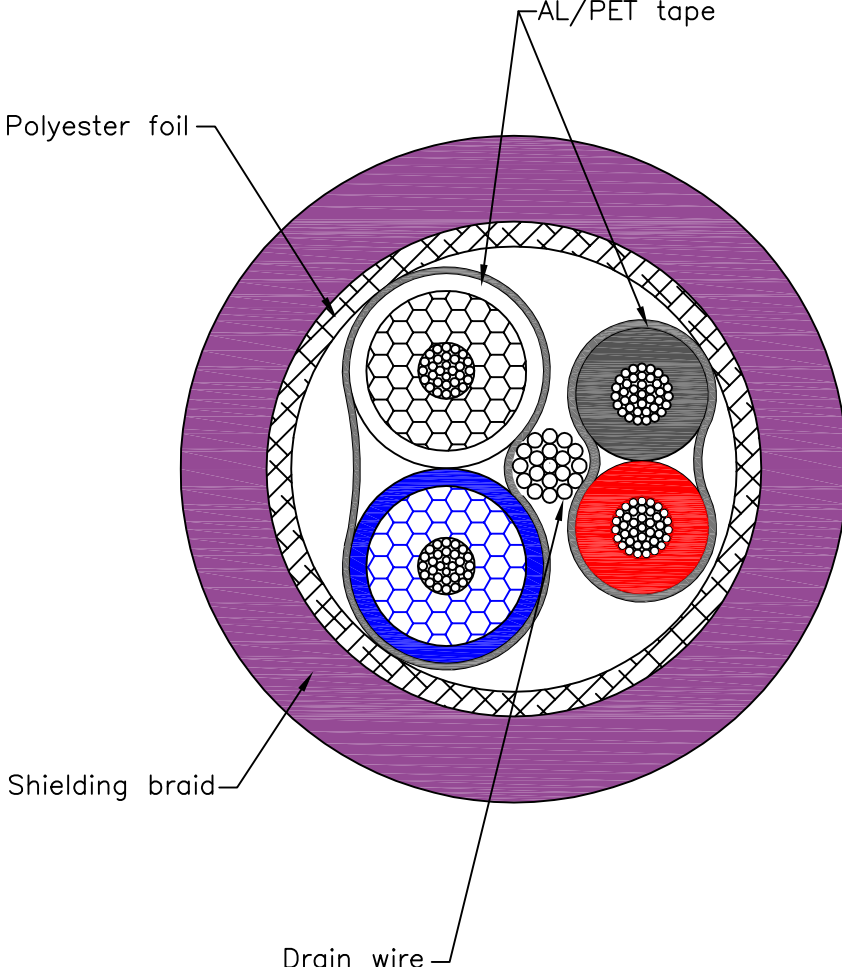
Contact Layout



Schematic diagram



|                                                                                       |                                                                             |                                      |                                                                                                                 |                    |                         |                    |  |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------|-------------------------|--------------------|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT.                                                |                                                                             | DWN<br>SATHISH KUMAR G<br>22DEC2014  | <div>TE Connectivity</div> |                    |                         |                    |  |
|                                                                                       |                                                                             | CHK<br>B.VELDHOVEN<br>22DEC2014      |                                                                                                                 |                    |                         |                    |  |
| DIMENSIONS:<br>mm                                                                     | TOLERANCES UNLESS<br>OTHERWISE SPECIFIED:                                   | APVD<br>A.VAN ZANDVOORT<br>22DEC2014 | NAME<br>M12 STRGT PLUG TO M12 STRGT SOCKET AA                                                                   |                    |                         |                    |  |
|  | 0 PLC ± -<br>1 PLC ± -<br>2 PLC ± -<br>3 PLC ± -<br>4 PLC ± -<br>ANGLES ± - | PRODUCT SPEC<br>108-19483            |                                                                                                                 |                    |                         |                    |  |
| MATERIAL<br>-                                                                         | FINISH<br>-                                                                 | APPLICATION SPEC<br>114-32127        | SIZE<br>A3                                                                                                      | CAGE CODE<br>00779 | DRAWING NO<br>C-2289297 | RESTRICTED TO<br>- |  |
| CUSTOMER DRAWING                                                                      |                                                                             |                                      | SCALE<br>NTS                                                                                                    | SHEET<br>1 of 2    | REV<br>B1               |                    |  |

|                                                                                      |  |                          |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
|--------------------------------------------------------------------------------------|--|--------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------|--|------------------------------|--|-----------------------------------|--|------------------|--|---------------------------------------|--|------|--|-----------|--|------------|--|---------------|--|----|--|
| 4                                                                                    |  | 3                        |  | 2                                                                                                                                                   |  | 1                                                                           |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
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| NOTES:                                                                               |  |                          |  |                                                                                                                                                     |  |                                                                             |  |                              |  | —                                 |  | SEE SHEET 1      |  | —                                     |  | —    |  | —         |  |            |  |               |  |    |  |
| Tolerances cable lengths:                                                            |  |                          |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| 0m to 0.5m                                                                           |  | +30mm                    |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| 0.5m to 1.0m                                                                         |  | +50mm                    |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| 1.0m to 3.0m                                                                         |  | +100mm                   |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| < 3.0m                                                                               |  | +1.5%                    |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| CABLE DATA SHEET                                                                     |  |                          |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Cable diameter                                                                       |  | 2x0.25+<br>2x0.34mm²     |  | 6.9mm±5%                                                                                                                                            |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Conductor colors                                                                     |  |                          |  | DATA PAIR: BLUE, WHITE 0.25mm²; POWER PAIR: BLACK, RED 0.34mm²                                                                                      |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Conductor construction                                                               |  |                          |  | 0.25: tinned copper wire 22/19AWG, paired in AL/PET tape<br>0.34mm²: tinned copper wire 24/19AWG, paired in AL/PET tape                             |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Conductor isolation<br>DIN VDE 0207–7                                                |  |                          |  | 0.25mm²: solid polyethylene outer dia 2.10mm ±5%<br>0.34mm²: foam skin polyethylene outer dia 1.55mm ±5%                                            |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Banding                                                                              |  |                          |  | Polyester foil, tinned copper wires (coverage min. 65%), drain wire 24/19AWG                                                                        |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Outer jacket                                                                         |  |                          |  | Halogen free PUR, color: Violet                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Resistance                                                                           |  |                          |  | Good oil, petrol and chemical resistance,<br>UV resistance compliant UL1581                                                                         |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Electrical data<br>Nominal voltage<br>Dielectric strength                            |  |                          |  | 300v max operating voltage<br>cond/cond, cond/shield: 1.5kVac/1min                                                                                  |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Temperature range                                                                    |  |                          |  | –40°C to +80°C Fixed<br>–30°C to +70°C Flexible                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Drag chain data                                                                      |  |                          |  | Translation speed: < 3.0m/s; acceleration: < 3.0m/s (proper installation)<br>Bending radius:6x outer dia (static); 12x outer dia (axial drag chain) |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Drag chain data<br>Torsion range                                                     |  |                          |  | 12x outer diameter, max. 5 million cycles<br>Not recommended for torsion                                                                            |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Permission                                                                           |  |                          |  | UL (AWM style 20233), CSA                                                                                                                           |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| Manufacturer & type                                                                  |  |                          |  | CEAM 0502688                                                                                                                                        |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
|  |  |                          |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| 1470–19 (3/11)                                                                       |  |                          |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| THIS DRAWING IS A CONTROLLED DOCUMENT.                                               |  |                          |  |                                                                                                                                                     |  |                                                                             |  |                              |  |                                   |  |                  |  |                                       |  |      |  |           |  |            |  |               |  |    |  |
| DIMENSIONS:                                                                          |  | mm                       |  | TOLERANCES UNLESS OTHERWISE SPECIFIED:                                                                                                              |  | DWN 22DEC2014<br>SATHISH KUMAR G                                            |  | CHK 22DEC2014<br>B.VELDHOVEN |  | APVD 22DEC2014<br>A.VAN ZANDVOORT |  | NAME             |  | M12 STRGT PLUG TO M12 STRGT SOCKET AA |  | SIZE |  | CAGE CODE |  | DRAWING NO |  | RESTRICTED TO |  |    |  |
|                                                                                      |  |                          |  |                                                                                                                                                     |  | 0 PLC ± –<br>1 PLC ± –<br>2 PLC ± –<br>3 PLC ± –<br>4 PLC ± –<br>ANGLES ± – |  | PRODUCT SPEC<br>108–19483    |  | APPLICATION SPEC<br>114–32127     |  |                  |  |                                       |  |      |  | A3        |  | 00779      |  | C=2289297     |  | —  |  |
| MATERIAL                                                                             |  | —                        |  | FINISH                                                                                                                                              |  | —                                                                           |  | WEIGHT                       |  | —                                 |  | CUSTOMER DRAWING |  | SCALE                                 |  | NTS  |  | SHEET     |  | 2 of 2     |  | REV           |  | B1 |  |