

PART MATRIX

**E 1 1 A 0 6 0 1 6 M X X X X**

E = ETHERNET/  
EtherCat

HEADS:  
1=M12 D-Coding  
1=M12 D-Coding

HEADS STYLE:  
060 = MALE STR/MALE STR

CABLE TYPE :

Units:  
M = Meter  
T = 10x Meter

Length  
Examples:  
005 = 0.5 m  
010 = 1 m  
050 = 5 m  
100 = 10 m  
150 = 15 m

H=2 PCS  
ID CARRIER

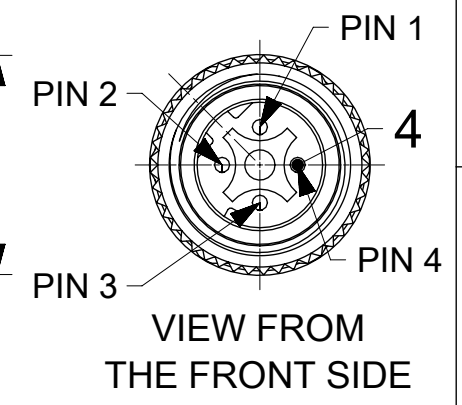
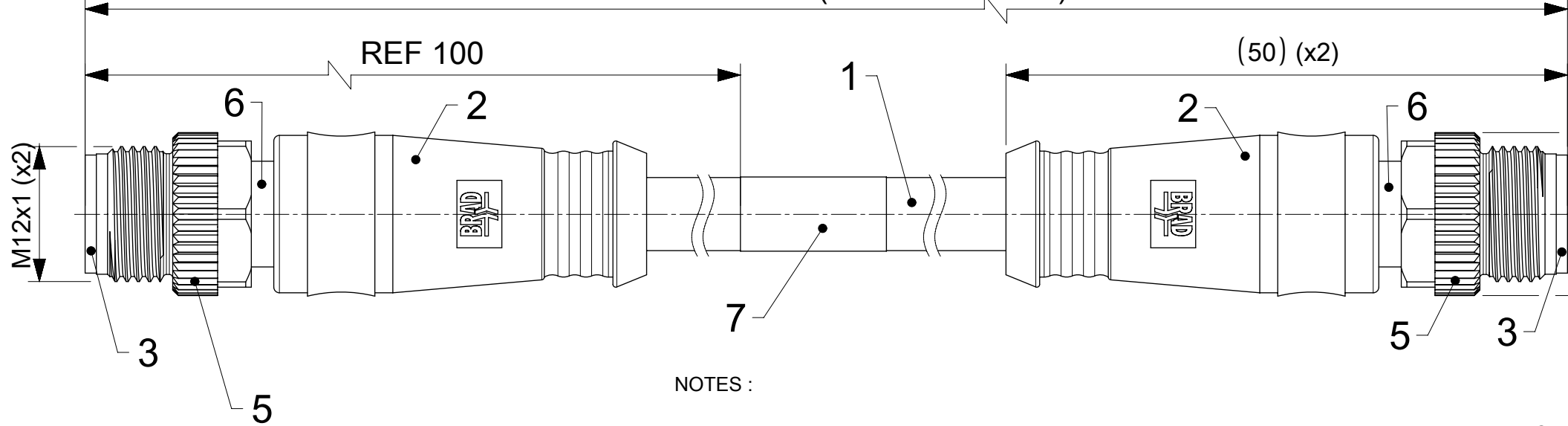
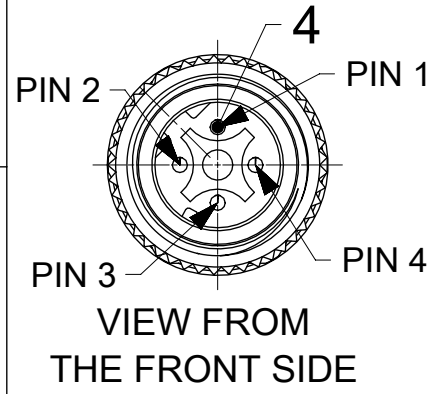
WIRING TYPE:  
A=4 Pole  
(STRAIGHT WIRED)

WIRING DIAGRAM



L+Tol. (SEE PART LIST)

SHIELD CONNECTED TO THE HOUSING



NOTES :

ELECTRICAL DATA :  
VOLTAGE RATING : 30V AC/DC  
AMPERAGE RATING : 1.5A  
INSULATION RESISTANCE : 10<sup>9</sup>Ω MIN.  
MATING CYCLES : MIN. 100

ENVIRONMENTAL :  
PROTECTION : IP67 IN MATED AND LOCKED POSITION  
OPERATING TEMPERATURE : -25°C TO +85°C

TRANSMISSION CHARACTERISTICS ACCORDING TO ISO/IEC 11801 CATEGORY 5e  
PATCH CORD PROFINET TYPE C

CABLE SPECIFICATION  
CONDUCTOR:  
MATERIAL: BARE COPPER  
SECTION: 0.22mm<sup>2</sup> - 24AWG  
INSULATION:  
COMPOUND: PE  
DIAMETER: Ø1.20mm  
COLOR: WHITE/ORANGE, WHITE/GREEN,  
ORANGE, GREEN  
JACKET:  
COMPOUND: TPU  
COLOR: TEAL  
DIAMETER: Ø6.5mm

PART LIST

| MOLEX PN   | ENGINEERING NO | L+Tol.[mm] |
|------------|----------------|------------|
| 1201088438 | E11A06016M380  | 38000      |
| 1201088420 | E11A06016M010  | 1000       |
| 1201088421 | E11A06016M020  | 2000       |
| 1201088422 | E11A06016M030  | 3000       |
| 1201088423 | E11A06016M040  | 4000       |
| 1201088424 | E11A06016M050  | 5000       |
| 1201088425 | E11A06016M060  | 6000       |
| 1201088426 | E11A06016M080  | 8000       |
| 1201088427 | E11A06016M100  | 10000      |
| 1201088428 | E11A06016M120  | 12000      |
| 1201088429 | E11A06016M150  | 15000      |
| 1201088430 | E11A06016M180  | 18000      |
| 1201088431 | E11A06016M200  | 20000      |
| 1201088432 | E11A06016M230  | 23000      |
| 1201088433 | E11A06016M250  | 25000      |
| 1201088434 | E11A06016M270  | 27000      |
| 1201088435 | E11A06016M300  | 30000      |
| 1201088436 | E11A06016M340  | 34000      |
| 1201088437 | E11A06016M350  | 35000      |
| 1201088438 | E11A06016M380  | 38000      |
| 1201088439 | E11A06016M400  | 40000      |
| 1201088440 | E11A06016M450  | 45000      |

| MOLEX PN   | ENGINEERING NO | L+Tol.[mm] |
|------------|----------------|------------|
| 1201088441 | E11A06016M500  | 50000      |
| 1201088442 | E11A06016M550  | 55000      |
| 1201088443 | E11A06016M600  | 60000      |
| 1201088444 | E11A06016M650  | 65000      |
| 1201088445 | E11A06016M700  | 70000      |
| 1201088446 | E11A06016M750  | 75000      |
| 1201088447 | E11A06016M760  | 76000      |
| 1201088448 | E11A06016M800  | 80000      |
| 1201088449 | E11A06016M850  | 85000      |
| 1201088506 | E11A06016M070  | 7000       |
| 1201088509 | E11A06016M420  | 42000      |
| 1201088510 | E11A06016M530  | 53000      |
| 1201088511 | E11A06016M570  | 75000      |
| 1201088525 | E11A06016M900  | 90000      |
| 1201088585 | E11A06016M460  | 46000      |
| 1201088586 | E11A06016M540  | 54000      |
| 1201088587 | E11A06016M610  | 61000      |
| 1201088588 | E11A06016M950  | 95000      |
| 1201088763 | E11A06016M680  | 68000      |
| 1201088774 | E11A06016M003  | 300        |
| 1201088775 | E11A06016M006  | 600        |
| 1201088844 | E11A06016M002  | 200        |

BOM

| ITEM | QTY | DESCRIPTION                         | MATERIAL | FINISH                    |
|------|-----|-------------------------------------|----------|---------------------------|
| 7    | 1   | LABEL                               | VINYL    | YELLOW                    |
| 6    | 2   | M12 SHIELD SLEEVE                   | BRASS    | Ni-PLATED                 |
| 5    | 2   | NUT M12 MA HEX SW13                 | BRASS    | Ni-PLATED                 |
| 4    | 8   | CONTACT 10 MA STA                   | BRASS    | SELECTED GOLD OVER NICKEL |
| 3    | 2   | INSERT M12 MA 4P DC                 | PUR      | BLACK                     |
| 2    | -   | OVER MOULD                          | TPU      | BLACK                     |
| 1    | -   | CABLE #24-2-2 TEAL WELD SLAG RESIST | TPU      | TEAL                      |

TABLE 2  
CABLE LENGTH TOLERANCES

| LENGTH   | TOLERANCE  |
|----------|------------|
| 0m-1m    | +40 mm     |
| >1m-5m   | +60 mm     |
| >5m-10m  | +80 mm     |
| >10m-20m | +140 mm    |
| >20m-30m | +160 mm    |
| >30m     | +1% length |

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FUNCTIONAL SYMBOLS:  $\nabla/A = 0$ ,  $\nabla/E = 0$ ,  $\nabla/F = 0$

DIVISIONAL SYMBOLS

THIRD ANGLE PROJECTION

SCALE: mm 2:1

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

CURRENT REV DESC:

EC NO: 689781  
DRWN: MDHARMANTI 2021/08/03  
CHK'D: RSILLER 2021/12/21  
APPR: RSILLER 2021/12/21

INITIAL REVISION:  
DRWN: MDHARMANTI 2021/08/03  
APPR: RSILLER 2021/12/21

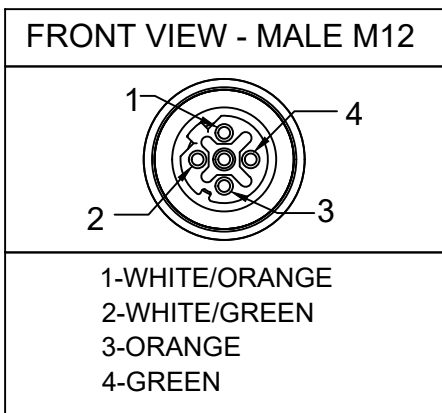
DOCUMENT NUMBER: 1201088420  
DOC TYPE: PSD  
DOC PART: 000  
REVISION: A

**molex**

CSE M12 ETH 4P DC MA MA STR WSOR XM DE

PRODUCT CUSTOMER DRAWING

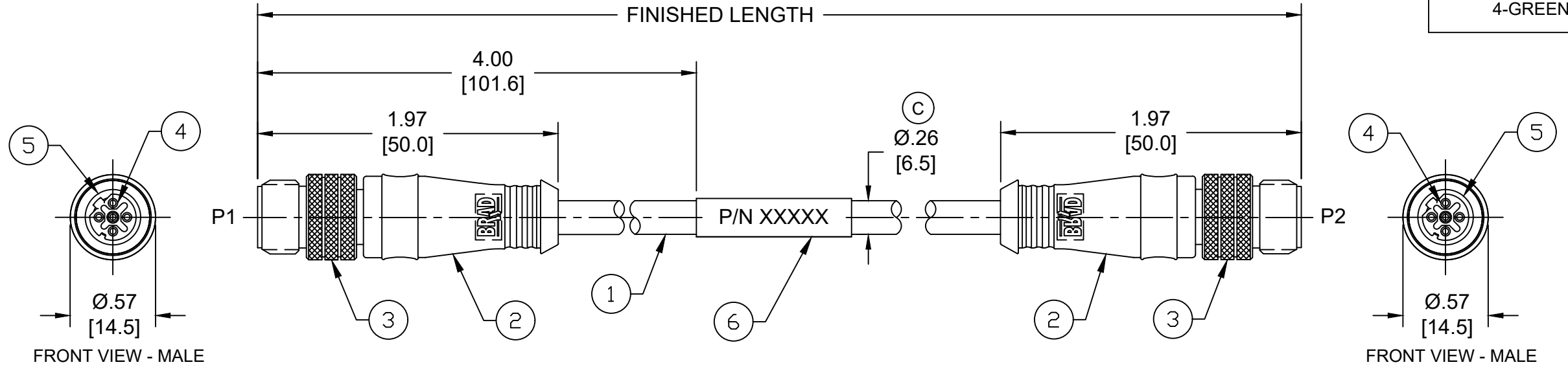
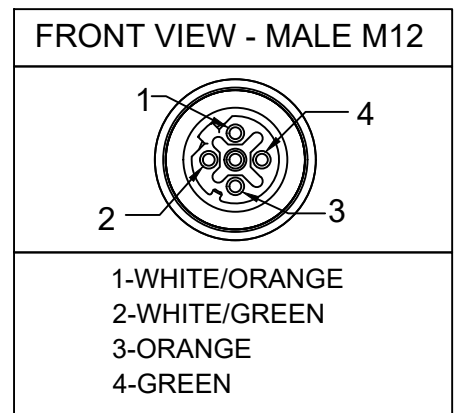
MATERIAL NUMBER: SEE PART LIST  
CUSTOMER: GENERAL MARKET  
SHEET NUMBER: 1 OF 1



**PART NUMBER LEGEND**  
E11A06016M002

FINISHED LENGTH  
M002 - 0.2 METER  
M010 - 1 METER  
M200 - 20 METER

| MATERIAL NUMBER | ENGINEERING NUMBER | FINISHED LENGTH |
|-----------------|--------------------|-----------------|
| 1201088844      | E11A06016M002      | 0.2M [8 IN]     |
| 1201088440      | E11A06016M450      | 45M[147FT 8 IN] |
| 1201088588      | E11A06016M950      | 95M[311FT 8 IN] |



**ADDITIONAL CABLE INFORMATION**

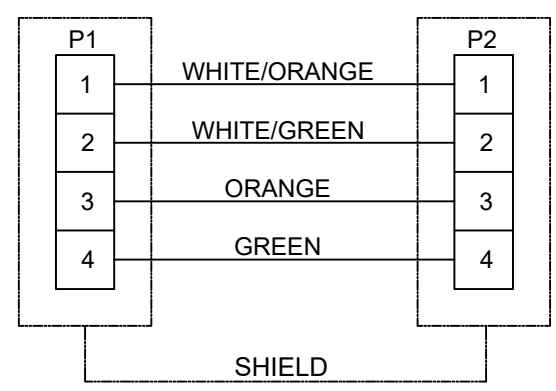
PHYSICAL CHARACTERISTICS:

|                     |  |
|---------------------|--|
| CONDUCTOR SIZE      | 24AWG 2 PAIR (19/0.12mm) BARE COPPER                         |
| INSULATION MATERIAL | POLYOLEFIN   |
| SHIELD/BRAID        | TINNED COPPER 85% COVERAGE                                   |
| JACKET MATERIAL     | TPU (TEAL)   |
| CONDUCTOR TAPE      | ORANGE, ORANGE-WHITE & GREEN, GREEN-WHITE ALUMINUM-POLYESTER |

CABLE:

|                                |                        |
|--------------------------------|------------------------|
| TEMPERATURE RATING (STORAGE)   | -40 / +80°C            |
| TEMPERATURE RATING (OPERATION) | -20 / +50°C            |
| WELD SLAG RESISTANCE           | YES, S-300 MOLEX TEST  |
| FREE SUBSTANCE'S               | FCKW, SILICONE, AND PB |
| FIRE PERFORMANCE               | IEC60332-1, UL1581     |
| OIL RESISTANCE                 | ISO6722, UL758/2556    |

- NOTES:**
- MATERIAL: AS NOTED
  - FINISH: AS NOTED
  - ELECTRICAL:  
VOLTAGE: 30V AC/DC  
CURRENT: 1.5A
  - PROTECTION: IP67 (WHEN MATED)
  - COUPLING THREAD: M12X1
  - ALL DIMENSIONS ARE FOR REFERENCE UNLESS TOLERANCED OR NOTED OTHERWISE



**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           |
|------|--------------|--------------|------------------|
| 6    | WRAP LABEL   | VINYL        | BLACK/YELLOW     |
| 5    | INSERT       | PUR          | BLACK            |
| 4    | PIN CONTACT  | COPPER ALLOY | GOLD OVER NICKEL |
| 3    | COUPLING NUT | BRASS        | NICKEL PLATED    |
| 2    | OVERMOLD     | TPU          | BLACK            |
| 1    | CABLE #24AWG | TPU          | TEAL             |

|  |   |                           |                              |  |
|--|---|---------------------------|------------------------------|--|
| FUNCTIONAL SYMBOLS<br>F=0<br>E=0<br>P=0              | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                           |                              |  |
|  | DIMENSION UNITS   | SCALE                     |                              |  |
|  | INCH/MM   | NTS                       | EC NO: 703079                |  |
|  | GENERAL TOLERANCES (UNLESS SPECIFIED)   |                           | DRWN: ABENJAMINLW 2022/03/14 |  |
| 4 PLACES ±--- ±---                                   |   | CHK'D: RSTONE 2022/04/12  |                              |  |
| 3 PLACES ±--- ±---                                   |   | APPR: BWOODMAN 2022/04/18 |                              |  |
| 2 PLACES ±--- ±---                                   |   | INITIAL REVISION:         |                              |  |
| 1 PLACE ±--- ±---                                    |   | DRWN: MZIELINS 2015/05/06 |                              |  |
| 0 PLACES ±--- ±---                                   |   | APPR: BWOODMAN 2015/06/03 |                              |  |
| ANGULAR TOL ± --- °                                  |   | DRAWING                   |                              |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |   | THIRD ANGLE PROJECTION    |                              |  |
|  |   | SERIES                    |                              |  |
|  |   | MATERIAL NUMBER           |                              |  |
|  |   | CUSTOMER                  |                              |  |
|  |   | SHEET NUMBER              |                              |  |