

PART No. MATRIX

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

E=ETHERNET/
Ethernet

HEADS:
1 = M12 D-Coding
6 = RJ45

HEADS STYLE:
060 = MALE STR / MALE STR

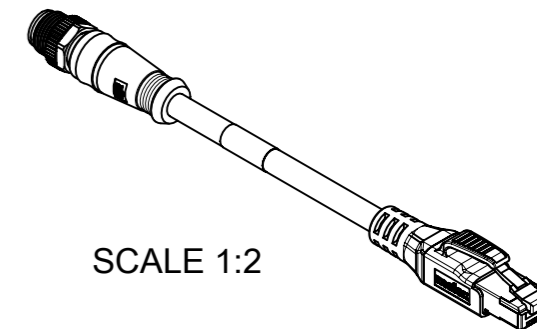
CABLE TYPE :
CABLE 16

UNITS:
M= METER
T=10x METER

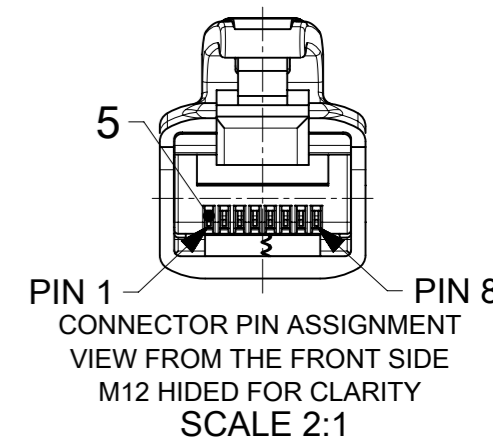
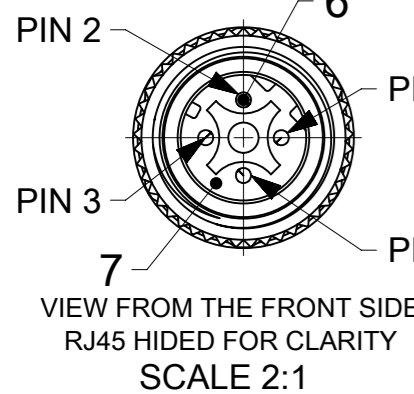
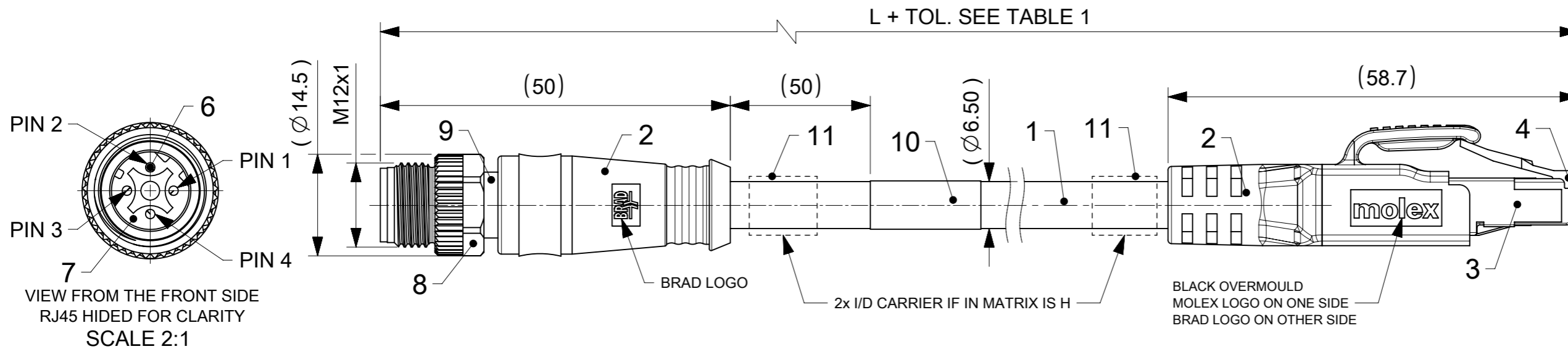
LENGTH EXAMPLES:
005=0.5 m
010=1 m
150=15 m
T100=100 m

H= 2 PCS. OF I/D Carrier

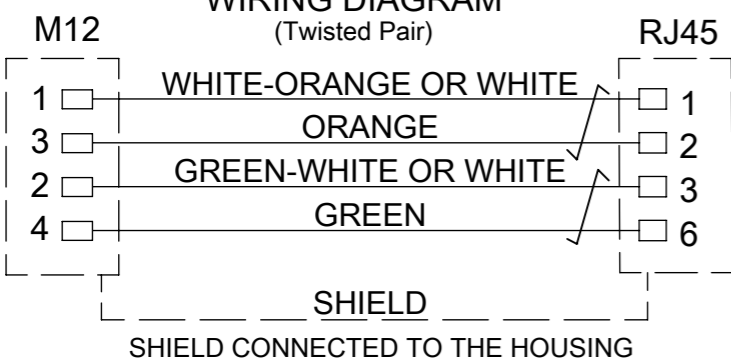
WIRING TYPE:
A=4 Pole (STRAIGHT WIRED)



SCALE 1:2



WIRING DIAGRAM (Twisted Pair)



TECHNICAL DATA :

- M12 D-CODED TO RJ45 CAT5e CORDSET AWG24 STRAIGHT TEAL INLINE 360° SHIELDED.
- POLES : 4
Max. VOLTAGE : 30V A.C. or 42V D.C.
Max. CURRENT : 1.5A
CONTACT RESISTANCE : ≤10 mΩ
INSULATION WITHSTAND : >100MΩ
PROTECTION CLASS M12 / RJ45 : IP67 / IP20
TEMPERATURE RANGE : -25°C to 80°C
- TRANSMISSION CHARACTERISTICS : (CATEGORY) : CAT5e, EtherNET
- PACKAGING : THE CORDSETS ARE PACKED IN POLYBAG
- TRANSMISSION CHARACTERISTICS ACCORDING TO ISO/IEC 11801 CATEGORY 5e PATCH CORD PROFINET TYPE C

BOM

* NOTE : ID CARRIER APPLICABLE, IF ENGINEERING No. HAS "H" (SEE TABLE1)

| ITEM | QTY | DESCRIPTION | MATERIAL | FINISH/COLOR |
|------|-----|------------------------|-----------------|------------------|
| 11 | 2 | ID CARRIER | PVC | TRANSPARENT |
| 10 | 1 | LABEL 2.0X1.75 | VINYL | YELLOW |
| 9 | 1 | M12 M STR SHLD | BRASS | Ni-PLATED |
| 8 | 1 | NUT M12 MALE | BRASS | Ni-PLATED |
| 7 | 1 | INSERT 4P M12 MALE | PUR | BLACK |
| 6 | 4 | CONTACT 10 MALE | Cu/Ni2 | GOLD OVER NICKEL |
| 5 | 4 | CONTACT RJ45 | PHOSPHOR BRONZE | SELECTIVE GOLD |
| 4 | 1 | PLUG RJ45 TRANSPARENT | PC | - |
| 3 | 1 | SHIELD | BRASS | TIN |
| 2 | - | MOULDING MATERIAL | TPU | BLACK |
| 1 | - | CABLE 2x2x24AWG SHIELD | TPU | TEAL |

TABLE 1

| MOLEX PN | ENGINEERING NO | L (m) | MOLEX PN | ENGINEERING NO | L (m) |
|------------|----------------|-------|------------|----------------|-------|
| 1201088776 | E16A06016M003 | 0.3 | 1201088462 | E16A06016M250 | 25 |
| 1201088777 | E16A06016M006 | 0.6 | 1201088460 | E16A06016M150 | 15 |
| 1201088450 | E16A06016M010 | 1 | 1201088463 | E16A06016M300 | 30 |
| 1201088451 | E16A06016M020 | 2 | 1201088461 | E16A06016M200 | 20 |
| 1201088452 | E16A06016M030 | 3 | 1201088464 | E16A06016M350 | 35 |
| 1201088453 | E16A06016M040 | 4 | 1201088465 | E16A06016M400 | 40 |
| 1201088454 | E16A06016M050 | 5 | 1201088466 | E16A06016M450 | 45 |
| 1201088455 | E16A06016M060 | 6 | 1201088467 | E16A06016M500 | 50 |
| 1201088533 | E16A06016M070 | 7 | 1201088468 | E16A06016M550 | 55 |
| 1201088456 | E16A06016M080 | 8 | 1201088469 | E16A06016M600 | 60 |
| 1201088457 | E16A06016M090 | 9 | 1201088470 | E16A06016M650 | 65 |
| 1201088458 | E16A06016M100 | 10 | 1201088471 | E16A06016M700 | 70 |
| 1201088459 | E16A06016M120 | 12 | 1201088472 | E16A06016M750 | 75 |
| 1201088534 | E16A06016M140 | 14 | 1201088473 | E16A06016M800 | 80 |
| | | | 1201088526 | E16A06016M850 | 85 |
| | | | 1201088527 | E16A06016M900 | 90 |

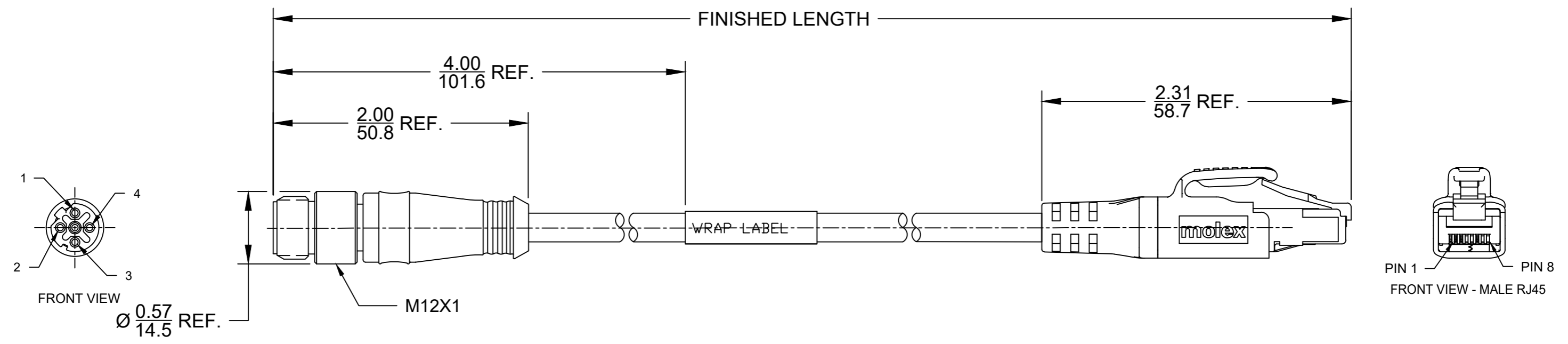
TABLE 2

| 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 |

| | |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| FUNCTIONAL SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |
| $\nabla_A = 0$ $\nabla_E = 0$ $\nabla_F = 0$ | DIMENSION UNITS: mm SCALE: 3:2 GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL ± 1.0° DIVISIONAL SYMBOLS |
| EC NO: 689781 DRWN: SSM CHK'D: RSILLER APPR: RSILLER | 2021/08/18 2021/12/21 2021/12/21 |
| INITIAL REVISION: DRWN: MDHARMANTI APPR: RSILLER | 2020/08/10 2020/09/02 |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | THIRD ANGLE PROJECTION DRAWING: A3-SIZE SERIES: 120108 |
| | |
| CSE M12 ETH 4P DC MA STR WSOR RJ45 XM DE SHLD D6.5 TEAL | |
| PRODUCT CUSTOMER DRAWING | |
| DOCUMENT NUMBER: 1201088450 | DOC TYPE: PSD DOC PART: 000 REVISION: A1 |
| MATERIAL NUMBER: SEE TABLE 1 CUSTOMER: GENERAL MARKET | SHEET NUMBER: 1 OF 1 |

| MATERIAL NUMBER | ENG. NUMBER | FINISHED LENGTH |
|-----------------|---------------|-----------------|
| 1201088450 | E16A06016M010 | 1 M |
| 1201088462 | E16A06016M250 | 25 M |
| 1201088473 | E16A06016M800 | 80 M |

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CABLE TYPE
24 AWG TPU-TEAL

E16A06016M005

LENGTH
M005 - 0.5M
M050 - 5M
M250 - 25M

NOTES:
STANDARDS:
PROTECTION:
IP20 RJ45 END
IP67 M12 END

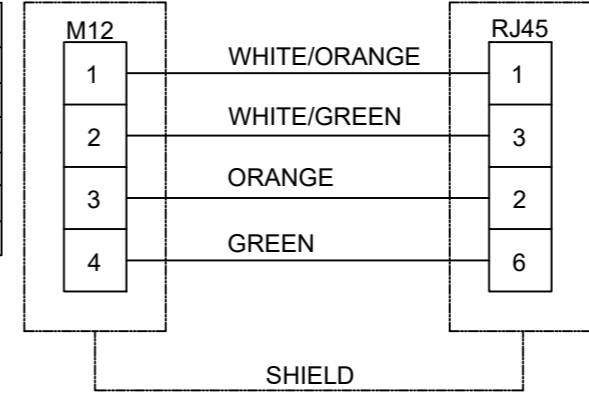
WRAP LABEL:
MARKED WITH P/N, DATE CODE, VOLTAGE & AMPERAGE

ELECTRICAL
ACCORDING TO CAT5e
VOLTAGE RATING: 125V AC/DC
AMPERAGE: 1.5A

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 |
| TAPE | 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 |



WIRING DIAGRAM

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

| QTY | DESCRIPTION | MATERIAL | FINISH |
|-----|------------------------|---------------|---------------|
| 1 | LABEL | VINYL | BLACK/YELLOW |
| 1 | INSTERT | PUR | BLACK |
| 4 | M12 FEMALE PIN CONTACT | COPPER ALLOY | GOLD PLATED |
| 1 | M12 COUPLING NUT | BRASS | NICKEL PLATED |
| 1 | RJ45 OVERMOLD | TPU | BLACK |
| 1 | RJ45 PLUG | POLYCARBONATE | CLEAR |
| 1 | OVERMOLD | TPU | BLACK |
| - | CABLE | TPU | TEAL |

| | | | | |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------|----------------------------|
| FUNCTIONAL SYMBOLS F=0 E=0 P=0 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | CURRENT REV DESC: ADD TOL CHART AND PN TABLE | |
| | DIMENSION UNITS INCH/MM | SCALE NTS | <p>molex</p> <p>M12 TO RJ45 CORDSET</p> <p>4P MALE M12/RJ45 ST #24-2TP TEAL PUR CAT5E</p> | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | |
| | 4 PLACES ±---- | ±---- | | |
| DIVISIONAL SYMBOLS | 3 PLACES ±---- | ±0.005 | EC NO: 633676 | DRWN: CCHRASTKA 2020/03/09 |
| 2 PLACES ±0.05 | ±0.01 | 1 PLACE ±0.1 | ±0.02 | CHK'D: ALEON01 2020/03/10 |
| 0 PLACES ±---- | ±---- | ANGULAR TOL ± 0.5 ° | INITIAL REVISION: | APPR: BWOODMAN 2020/03/12 |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | THIRD ANGLE PROJECTION | DRAWING | SERIES |
| | | | B-SIZE | 120108 |
| DOCUMENT STATUS | P1 | RELEASE DATE | 2020/03/12 | 22:11:00 |
| SD-120108-084 | | PSD | 001 | C |
| SEE TABLE | GENERAL MARKET | SHEET NUMBER | | 1 OF 1 |