

# 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

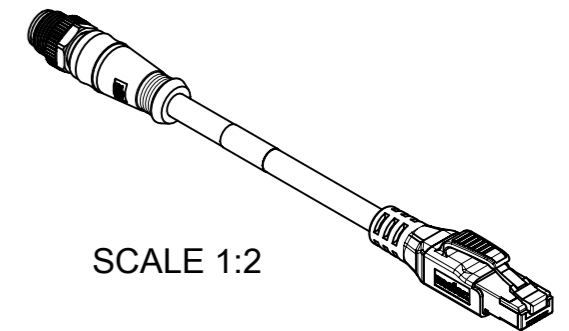
CABLE TYPE :  
CABLE 16

UNITS:  
M= METER  
T=10x METER

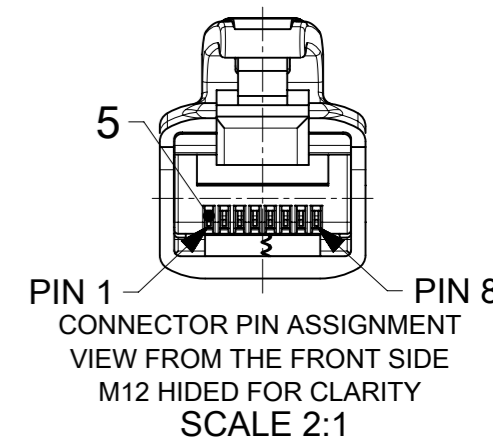
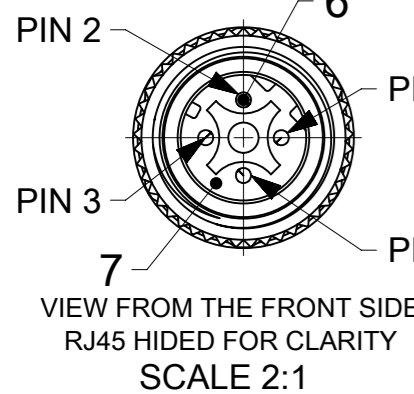
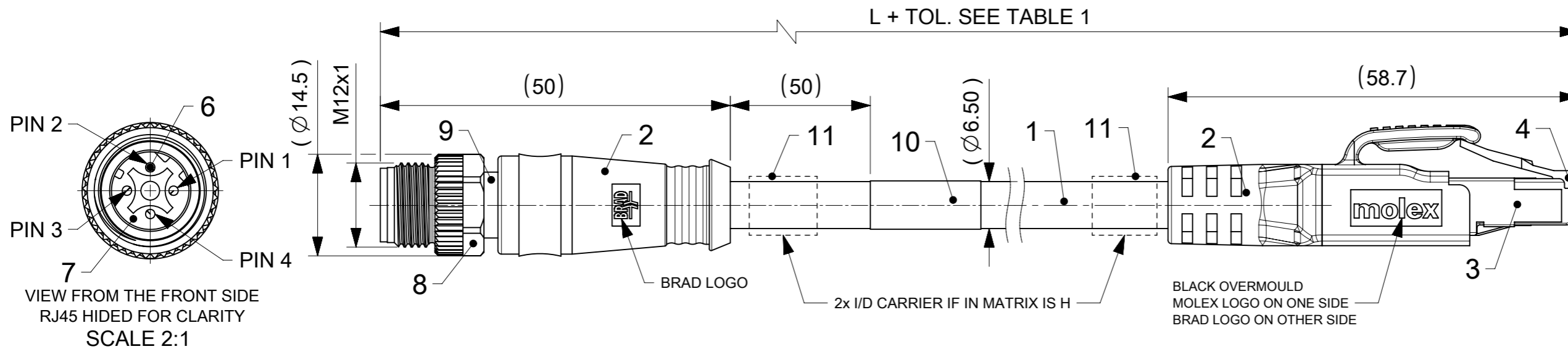
LENGTH EXAMPLES:  
005=0.5 m  
010=1 m  
150=15 m  
T100=100 m

H= 2 PCS. OF I/D Carrier

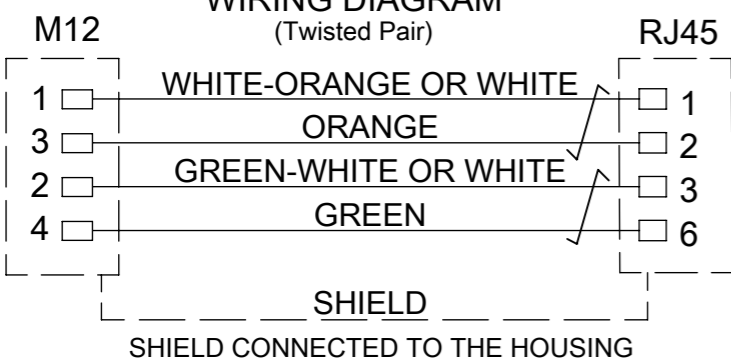
WIRING TYPE:  
A=4 Pole (STRAIGHT WIRED)



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

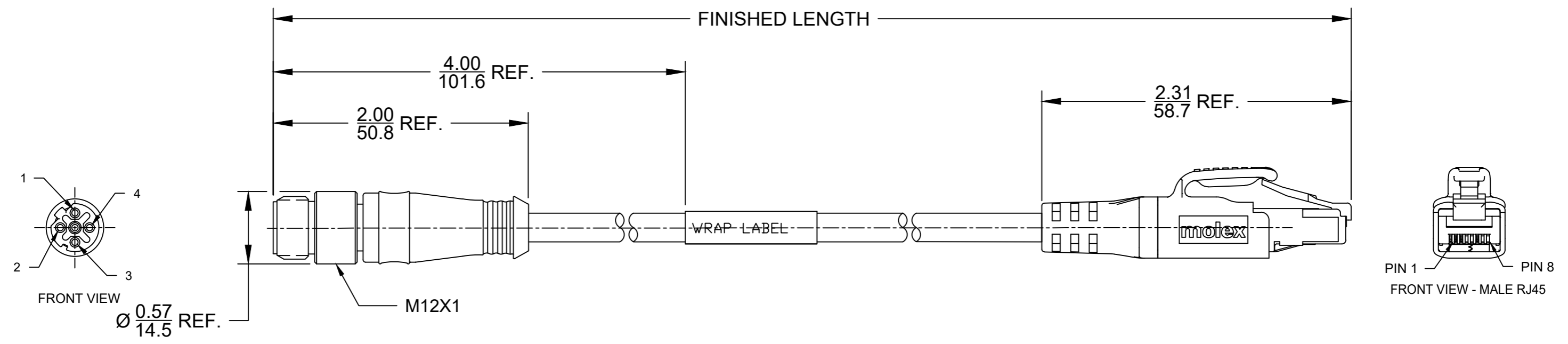
TABLE 2

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: <b>mm</b> SCALE: <b>3:2</b> 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: <b>A3-SIZE</b> SERIES: <b>120108</b>
CSE M12 ETH 4P DC MA STR WSOR RJ45 XM DE SHLD D6.5 TEAL	
PRODUCT CUSTOMER DRAWING	
DOCUMENT NUMBER: <b>1201088450</b>	DOC TYPE: PSD DOC PART: 000 REVISION: <b>A1</b>
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

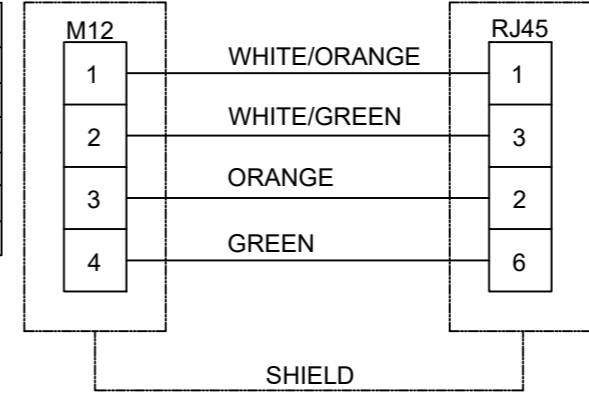
WRAP LABEL:  
MARKED WITH P/N, DATE CODE, VOLTAGE & AMPERAGE

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 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

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$F=0$ $E=0$ $P=0$	DIMENSION UNITS	SCALE	CURRENT REV DESC: ADD TOL CHART AND PN TABLE
	INCH/MM	NTS	
	GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	INCH	
	4 PLACES	±----	±----
	3 PLACES	±----	±0.005
	2 PLACES	±0.05	±0.01
	1 PLACE	±0.1	±0.02
	0 PLACES	±----	±----
	ANGULAR TOL ± 0.5 °		
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		
	THIRD ANGLE PROJECTION	DRAWING	SERIES
		B-SIZE	120108
	MATERIAL NUMBER		CUSTOMER
	SEE TABLE		GENERAL MARKET
	SHEET NUMBER		1 OF 1

**molex**

M12 TO RJ45 CORDSET

4P MALE M12/RJ45 ST #24-2TP TEAL PUR CAT5E

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER: SD-120108-084

DOC TYPE: PSD

DOC PART: 001

REVISION: C