

## Industrial Ethernet cordsets



The use of both RJ45 and M12 connectors in Ethernet network protocols is common. LAPP continuous flex CAT.5e & CAT.6A cables offer a unique solution for the demanding needs of motion systems, where a network connection has been integrated for program interface from remote locations. LAPP's product offering supports both flexing and stationary industrial Ethernet requirements.

### Available configurations

- single-ended cordsets: 4 pair
- extension cordsets: 4 pair
- single-ended cordsets: 2 pair
- extension cordsets: 2 pair

### Technical data

<b>Material:</b>	
- contact carrier:	thermoplastic polyurethane; black polycarbonate
- M12:	
- RJ45:	
- molded head:	
- M12, 8-position:	thermoplastic polyurethane; black*
- M12, 4-position D-code:	thermoplastic polyurethane; blue-gray*
- RJ45:	thermoplastic polyurethane; black*
- contacts:	gold-plated brass
- coupling nut:	nickel-plated brass
- shield:	copper braid or foil & copper braid
- outer jacket:	polyurethane; teal or green
- conductor insulation:	polyethylene

\* color is typical, not standard

<b>Temperature range:</b>	see specific cable catalog page
---------------------------	---------------------------------

<b>Rated voltage:</b>	42V
- cable:	1000 (not for power applications)

<b>Rated current:</b>	1.5A
-----------------------	------

<b>Number of conductors:</b>	
- M12 D-code/RJ45 shielded:	26 - 22 AWG/2pr, stranded or solid
- M12 8-pos. & RJ45S:	26 - 22 AWG/4pr, stranded or solid

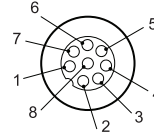
<b>IP Protection class:</b>	
- M12:	IP67 NEMA 1, 3, 4, 6P
- RJ45:	IP20 NEMA 1

<b>Cable type:</b>	
- for stationary use:	CAT.5e: ETHERLINE® 2 pair CAT.5e, page 237 ETHERLINE® 4 pair CAT.5e, page 244 CAT.6A: ETHERLINE® 4 pair CAT.6A, page 247
- continuous flex:	CAT.5e: ETHERLINE® 2 pair CAT.5e, page 238 ETHERLINE® 4 pair CAT.5e, page 245 CAT.6A: ETHERLINE® 4 pair CAT.6A, page 248

### Pin outs

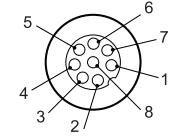
#### Ethernet M12 8-position, 4 pair

##### male



- 1 = white/blue
- 2 = white/brown
- 3 = brown
- 4 = orange (-TX)

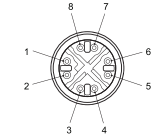
##### female



- 5 = white/green (+RX)
- 6 = white/orange (+TX)
- 7 = blue
- 8 = green (-RX)

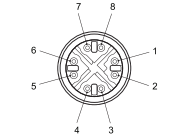
#### Ethernet M12 X-coded, 4 pair

##### male



- 1 = white/orange (+TX)
- 2 = orange (-TX)
- 3 = white/green (+RX)
- 4 = green (-RX)

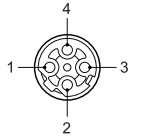
##### female



- 5 = white/brown
- 6 = brown
- 7 = white/blue
- 8 = blue

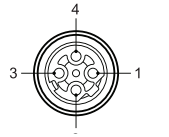
#### Ethernet M12 D-coded, 2 pair

##### male



- 1 = white/orange (+TX)
- 2 = white/green (+RX)
- 3 = orange (-TX)
- 4 = green (-RX)

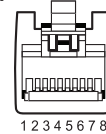
##### female



- 5 = white/brown
- 6 = brown
- 7 = white/blue
- 8 = blue

#### Ethernet RJ45 shielded

##### 4 pair



- 1 = white/orange (+TX)
- 2 = orange (-TX)
- 3 = white/green (+RX)
- 4 = blue
- 5 = white/blue
- 6 = green (-RX)
- 7 = white/brown
- 8 = brown

##### 2 pair



- 1 = white/orange (+TX)
- 2 = orange (-TX)
- 3 = white/green (+RX)
- 4 = N/C
- 5 = N/C
- 6 = green (-RX)
- 7 = N/C
- 8 = N/C

## Ethernet single-ended cordsets: 4 pair CAT.6A

### 8-pos. M12 or 8-wire RJ45 connectors to flying leads

**connector 1**


male M12 straight connector

male M12 bulkhead

female M12 straight connector

female M12 bulkhead

RJ45 shielded connector



Cable type	Part number	Page
stationary	2170464	247
continuous flexing	2170484	248

**connector 2**

flying leads

Connector 1	Connector 2	Part number	
		stationary	continuous flex
M12 to flying leads			
male M12 straight	flying leads	C6A003Sxx	C6A003Fxx
male M12 bulkhead	flying leads	C6A010Sxx	C6A010Fxx
female M12 straight	flying leads	C6A004Sxx	C6A004Fxx
female M12 bulkhead	flying leads	C6A011Sxx	C6A011Fxx
RJ45 to flying leads			
RJ45 shielded	flying leads	C6A002Sxx	C6A002Fxx

For part number, replace "xx" with the desired cable length in meters  
90° M12 connectors are also available

## Ethernet extension cordsets: 4 pair CAT.6A


### 8-pos. M12 or 8-wire RJ45 connectors

**connector 1**

male M12 straight connector

female M12 straight connector

RJ45 shielded connector



Cable type	Part number	Page
stationary	2170464	247
continuous flexing	2170484	248

**connector 2**

male M12 straight connector

female M12 straight connector

RJ45 shielded connector

Connector 1	Connector 2	Part number	
		stationary	continuous flex
M12 to M12			
male M12 straight	male M12 straight	C6A005Sxx	C6A005Fxx
male M12 straight	female M12 straight	C6A007Sxx	C6A007Fxx
female M12 straight	female M12 straight	C6A006Sxx	C6A006Fxx

For part number, replace "xx" with the desired cable length in meters  
90° M12 connectors are also available

Connector 1	Connector 2	Part number	
		stationary	continuous flex
M12 to RJ45			
male M12 straight	RJ45 shielded	C6A008Sxx	C6A008Fxx
female M12 straight	RJ45 shielded	C6A009Sxx	C6A009Fxx
RJ45 to RJ45			
RI45 shielded	RI45 shielded	C6A001Sxx	C6A001Fxx