

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

Material:

- contact carrier:
 - M12: thermoplastic polyurethane; black
 - RJ45: polycarbonate
- 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

Temperature range: see specific cable catalog page

Rated voltage: 42V
- cable: 1000 (not for power applications)

Rated current: 1.5A

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

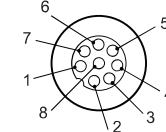
IP Protection class:
- M12: IP67
NEMA 1, 3, 4, 6P
- RJ45: IP20
NEMA 1

Cable type:
- 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

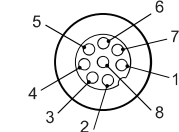
Ethernet M12 8-position, 4 pair

male



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

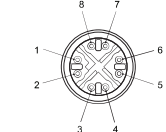
female



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

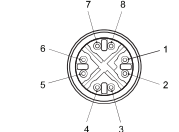
Ethernet M12 X-coded, 4 pair

male



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

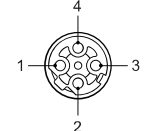
female



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

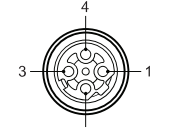
Ethernet M12 D-coded, 2 pair

male



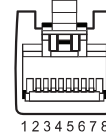
- 1 = white/orange (+TX)
- 2 = white/green (+RX)
- 3 = orange (-TX)
- 4 = green (-RX)

female



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.5e

8-pos. M 12 or 8-wire RJ45 connectors to flying leads

	connector 1	ETHERLINE® 4 pair CAT.5e	connector 2	
male M 12 straight connector				flying leads
male M 12 bulkhead				
female M 12 straight connector				
female M 12 bulkhead				
RJ45 shielded connector				

Cable type	Part number	Page
stationary	2170300	244
continuous flexing	2170489	245







90° M 12 connectors are also available

Connector 1	Connector 2	Part number	
		stationary	continuous flex
M 12 to flying leads			
male M 12 straight	flying leads	C5E003Sxx	C5E003Fxx
male M 12 bulkhead	flying leads	C5E010Sxx	C5E010Fxx
female M 12 straight	flying leads	C5E004Sxx	C5E004Fxx
female M 12 bulkhead	flying leads	C5E011Sxx	C5E011Fxx
RJ45 to flying leads			
RJ45 shielded	flying leads	C5E002Sxx	C5E002Fxx

For part number, replace "xx" with the desired cable length in meters

Ethernet extension cordsets: 4 pair CAT.5e

8-pos. M 12 or 8-wire RJ45 connectors

	connector 1	ETHERLINE® 4 pair CAT.5e	connector 2	
male M 12 straight connector				male M 12 straight connector
female M 12 straight connector				female M 12 straight connector
RJ45 shielded connector				RJ45 shielded connector

Cable type	Part number	Page
stationary	2170300	244
continuous flexing	2170489	245

Connector 1	Connector 2	Part number	
		stationary	continuous flex
M 12 to M 12			
male M 12 straight	male M 12 straight	C5E005Sxx	C5E005Fxx
male M 12 straight	female M 12 straight	C5E007Sxx	C5E007Fxx
female M 12 straight	female M 12 straight	C5E006Sxx	C5E006Fxx

For part number, replace "xx" with the desired cable length in meters
90° M 12 connectors are also available

Connector 1	Connector 2	Part number	
		stationary	continuous flex
M 12 to RJ45			
male M 12 straight	RJ45 shielded	C5E008Sxx	C5E008Fxx
female M 12 straight	RJ45 shielded	C5E009Sxx	C5E009Fxx
RJ45 to RJ45			
RJ45 shielded	RJ45 shielded	C5E001Sxx	C5E001Fxx

Ethernet single-ended cordsets: 2 pair CAT.5e

4-pos. M 12 D-coded or 4-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	2170284	237
continuous flexing	2170289	238

connector 2

flying leads

Connector 1	Connector 2	Part number	
		stationary	continuous flex
M12 to flying leads			
male M12 straight	flying leads	C5E103Sxx	C5E103Fxx
male M12 bulkhead	flying leads	C5E110Sxx	C5E110Fxx
female M12 straight	flying leads	C5E104Sxx	C5E104Fxx
female M12 bulkhead	flying leads	C5E111Sxx	C5E111Fxx
RJ45 to flying leads			
RJ45 shielded	flying leads	C5E102Sxx	C5E102Fxx

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

Ethernet extension cordsets: 2 Pair CAT.5e


4-pos. M 12 D-coded or 4-wire RJ45 connectors

connector 1

male M12 straight connector

female M12 straight connector

female M12 straight connector



Cable type	Part number	Page
stationary	2170284	237
continuous flexing	2170289	238

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	C5E105Sxx	C5E105Fxx
male M12 straight	female M12 straight	C5E107Sxx	C5E107Fxx
female M12 straight	female M12 straight	C5E106Sxx	C5E106Fxx

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	C5E108Sxx	C5E108Fxx
female M12 straight	RJ45 shielded	C5E109Sxx	C5E109Fxx
RJ45 to RJ45			
RJ45 shielded	flying leads	C5E101Sxx	C5E101Fxx