Data communication systems for Ethernet technology

Industrial Ethernet cable for special applications

ETHERLINE® ROBUST FR

Chemical-resistant industrial Ethernet cable for flexible applications

LAPP KABEL STUTTGART ETHERLINE® ROBUST FR CAT.5e

LAPP KABEL STUTTGART ETHERLINE® ROBUST FR CAT.7

ETHERLINE® ROBUST FR flexible cables are suitable for CAT.5e and CAT.7 applications that require a flame-retardant jacket as well as chemical, UV, and weather resistance. They are designed with a foil and braid shield to protect against EMI and ensure reliable data transmission.

Recommended applications

Machine tool building; medical technology; laundries; car washing equipment; chemical industry; composting plants; sewage works; food & beverage industry, especially for production and processing of dairy and meat products

Approvals



EtherNet/IP



Construction

Conductors: stranded bare copper Pairs: CAT.5e: 2 pair • CAT.7: 4 pair

Insulation: polyolefin

Shielding: foil and tinned copper braid

Jacket: TPE; black

Application advantage

- · Flame-retardant jacket
- · Suitable for indoor and outdoor applications
- Suitable for EtherCAT® and EtherNet/IP applications
- Suitable for PoE per IEEE 802.3at (see table below)

OR-01 FLAME FR-02 MOTION MP-01





Technical data

Minimum bend radius:

- for stationary use: 4 x cable diameter - for flexible use:

10 x cable diameter

Temperature range:

- for stationary use: -50°C to +80°C - for flexible use: -40°C to +80°C

z_∞ Characteristic impedance: $100\Omega \pm 15\Omega (1 - 100 \text{ MHz})$

Color code:

- 2 pair: - 4 pair:

white/blue & blue, white/orange & orange, white/green & green,

white/brown & brown

white & yellow, blue & orange

Part number	Construction	Stranding	Jacket material	Jacket color	Approvals	PoE	Nominal outer diameter		Approx. weight	SKINTOP® MS-SC
							in	mm	lbs/mft	PG thread
CAT.5e										
2170454	22 AWG/2pr	7 wire	TPE	black	PROFINET®	yes	0.268	6.8	37	53112220
CAT.7										
2170455	24 AWG/4pr	7 wire	TPE	black	PROFINET®	yes	0.355	9.0	54	53112230
2170456	26 AWG/4pr	7 wire	TPE	black	_	no	0.256	6.5	27	53112220