# Data communication systems for Ethernet technology

### Industrial Ethernet cable for special applications

# ETHERLINE<sup>®</sup> 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<sup>®</sup> 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

# pppf¶® Nét**é**





# Construction

<u>Conductors:</u> stranded bare copper <u>Pairs:</u> CAT.5e: 2 pair • CAT.7: 4 pair <u>Insulation:</u> polyolefin <u>Shielding:</u> foil and tinned copper braid <u>Jacket:</u> 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)

Cable attributes	page 648	Complete the installation		ÖLFLEX <sup>®</sup> CONNECT solution
<b>OR-01 OR-01</b>	FLAME         FR-02           MECH.         MP-01	SKINTOP® MS-SC page 522	RJ45 connectors page 258	ÖLFLEX® CONNECT CABLES page 605
Technical data				

K Minimum bend radius:		Color code:	
<ul> <li>for stationary use:</li> </ul>	4 x cable diameter	- 2 pair:	white & yellow, blue & orange
- for flexible use:	10 x cable diameter	- 4 pair:	white/blue & blue, white/orange & orange,
Temperature range:			white/green & green,
- for stationary use:	-50°C to +80°C		white/brown & brown
- for flexible use:	-40°C to +80°C		
$\mathbb{Z}_{\infty}$ Characteristic impedance:	$100\Omega \pm 15\Omega$ (1 - 100 MHz)		

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

> PROFINET® is a registered trademark of the PNO (PROFIBUS User Organization). EtherCAT® is a registered trademark of Beckhoff Automation GmbH. Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section.

If not otherwise specified, all values relating to the product are nominal values. Photographs are not to scale and are not true representations of the products in question.

