# Data communication systems for ETHERNET technology

Industrial Ethernet, Cat.5 / 5e • Cables for flexible applications

## ETHERLINE<sup>®</sup> Cat.5e FLEX

Ethernet cable Category 5e, Class D for flexible use - verified up to 100 MHz



- · Industrial Ethernet cable
- Only for patch cable applications (max. 60 m)

## Benefits

ÖLFLEX®

**UNITRONIC®** 

**ETHERLINE®** 

**HITRONIC®** 

- · Seamless communication from the sensor/actuator level to the Internet
- Screened against interference
- Can be used in dry or damp rooms
- Can be used for Industrial Ethernet in harsh industrial environments
- Cables with PUR jacket: 1000 V UL- rating for installation next to power cables

#### Application range

- 2pair: 10/100 Mbit/s for Industrial Ethernet
- 4pair: 10/100/1000 Mbit/s for Industrial Ethernet
- Suitable for EtherCAT and EtherNet/IP applications
- · For flexible applications (7-wire stranded conductor)
- · Only for patch cable applications (max. 60 m)

#### **Product features**

- · High-quality, double screening ensures high transmission reliability in areas with electromagnetic interference
- · Halogen-free outer sheath
- · PUR outer sheath is highly resistant to mineral oils and abrasion

## Norm references / Approvals

- PVC version with UL/CSA (CMX) • certification
- PUR versions: UL AWM Style 21576
- Flame-retardant according IEC 60332-1-2
- Cable with PUR or halogenfree compound: Halogen-free according to VDE 0472-815

#### Product Make-up

- Stranded conductor, bare, 7-wire
- Core insulation made of foam skin
- 2 or 4-pair version
- SF/UTP: braid of tinned copper wire and plastic laminated aluminum foil as overall screening
- · Outer sheath as either PUR or LSZH
- Colour: water blue (RAL 5021)
- PVC jacket colour: green (based on RAL 6018)

Tech	nical data
ETIM	Classification ETIM 5/6 ETIM 5.0/6.0 Class-ID: EC000830 ETIM 5.0/6.0 Class-Description: Data cable
4	<b>Peak operating voltage</b> (not for power applications) 125 V
$\square$	<b>Minimum bending radius</b> Fixed installation: 8 x outer diameter Flexing: 15 x outer diameter
4	Test voltage Core/core: 1000 V Core/screen: 500 V
Z∞	Characteristic impedance 100 $\Omega \pm 15\%$
	<b>Temperature range</b> cable with PUR jacket Fixed installation: VDE -30°C to +80°C UL/CSA -30°C to +80°C flexing: VDE -5°C to +50°C; UL/CSA -5°C to +80°C cable halogenfree compound Fixed installation: -30°C to +80°C flexing: -5°C to +60°C cable with PVC jacket Fixed installation: -40°C to +80°C flexing: -10°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Core diameter in mm	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
2-pair version						
Halogen-free jacke	et					
2170283	ETHERLINE <sup>®</sup> H Flex CAT.5e	2 x 2 x AWG26/7	0.95	5.6	19	43
PUR outer sheath,	halogen-free					
2170284	ETHERLINE <sup>®</sup> P Flex CAT.5e	2 x 2 x AWG26/7	0.95	5.6	19	45
1-pair version						
lalogen-free jacke	et					
2170299	ETHERLINE <sup>®</sup> H Flex CAT.5e	4 x 2 x AWG26/7	0.95	6.1	25	48
UR outer sheath,	halogen-free					
2170300	ETHERLINE <sup>®</sup> P Flex CAT.5e	4 x 2 x AWG26/7	0.95	6.1	25	54
VC outer sheath		· · · · · · · · · · · · · · · · · · ·	· · · ·			
2170486	ETHERLINE <sup>®</sup> Y Flex CAT.5e	4 x2 x AWG26/7	0.9	6.4	30	54

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.

Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths Packaging size: coil  $\leq$  30 kg or  $\leq$  250 m, otherwise drum

Detailed data sheets are available upon request. Please specify the type/dimensions of the required cable. Photographs and graphics are not to scale and do not represent detailed images of the respective products.

## Accessories

- Field-Terminable Connector RJ45 CAT.5e FM45 refer to page 472
- EPIC<sup>®</sup> DATA AX RJ45 Cat.6<sub>↓</sub> refer to page 459
- EPIC<sup>®</sup> DATA 90 RJ45 Cat.6 refer to page 459
- EPIC<sup>®</sup> DATA HS RJ45F Cat.6<sub>↓</sub> refer to page 461
- EPIC® DATA M12D refer to page 462

- EPIC<sup>®</sup> DATA M12X refer to page 462
- KNIPEX Elektronik Super Knips<sup>®</sup> refer to page 983
- EPIC® DATA CCR FA refer to page 463
- DATA STRIP stripping tool refer to page 986
- Fibre Strip DC

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ACCESSORIES

SILVYN®

SKINTOP<sup>®</sup>