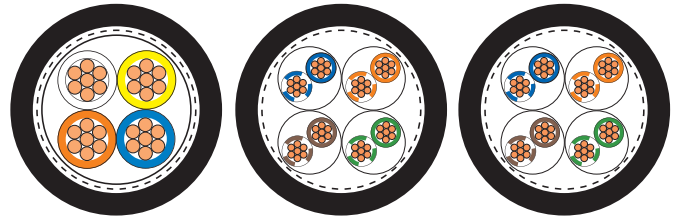




ETHERLINE® ROBUST FR

**i Info**

- For PROFINET applications
- Flame-retardant



**Benefits**

- Outstanding weather, ozone and UV resistance together with the wide temperature range enable versatile use for indoor and outdoor applications
- Good resistance to cold and hot water as well as water-soluble cleaning and cooling agents
- Well-suited to steam cleaning

**Application range**

- For flexible applications (7-wire stranded conductor)
- Machine tool building, medical technology, laundries, car washing equipment, chemical industry, composting plants, sewage works
- Food and beverage industry, especially for production and processing equipment of milk and meat products
- For industrial secondary and tertiary cabling according to EN 50173-3 ISO/IEC 24702
- Suitable for EtherCAT and EtherNet/IP applications

**Product features**

- High-quality, double screening ensures high transmission reliability in areas with electromagnetic interference
- Flame retardance makes it suitable for indoor and outdoor installations
- 2pair: 10/100 Mbit/s for Industrial Ethernet
- 4pair: 100Mbit/s up to 10 Gbit/s for Industrial Ethernet
- Many applications with Industrial Ethernet, e.g. PROFINET type B, i.e. fixed installation and flexible use.

**Norm references / Approvals**

- UV-resistant according to ISO 4892-2 and ozone-resistant according to EN 50396
- Flame-retardant according IEC 60332-1-2

**Product Make-up**

- 7-wire bare stranded copper conductor
- Core insulation: Based on Polyolefin
- Screening: wrapped with braided tinned-copper wires
- Outer sheath made of special TPE
- Colour: black

**Technical data**

**Classification ETIM 5/6**  
 ETIM 5.0/6.0 Class-ID: EC000830  
 ETIM 5.0/6.0 Class-Description: Data cable

**Minimum bending radius**  
 Flexing: 10 x outer diameter  
 Fixed installation: 4 x Outer diameter

**Characteristic impedance**  
 nom. 100 Ω acc. to IEC 61156-6

**Temperature range**  
 Occasional flexing: -40°C to +80°C  
 Fixed installation: -50°C to +80°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)
<b>PROFINET Cat.5e</b>						
2170454	ETHERLINE® ROBUST PN FR Cat.5	2x2xAWG22/7	1.5	6.5	30.4	55
<b>PROFINET Cat.7</b>						
2170455	ETHERLINE® ROBUST PN FR Cat.7	4x2xAWG23/7	1.5	8.7	48	80
<b>Industrial Ethernet Cat.7</b>						
2170456	ETHERLINE® ROBUST FR Cat.7 FLEX	4x2xAWG26/7	1	6.2	27	40

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](http://www.lappkabel.de/en/cable-standardlengths) PROFINET® is a registered trademark of the PNO (PROFIBUS user organisation). 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**

- EPIC® DATA PN AX RJ45 refer to page 458
- EPIC® DATA PN 90 RJ45 refer to page 458
- EPIC® DATA AX RJ45 Cat.6<sub>A</sub> refer to page 459
- EPIC® DATA 90 RJ45 Cat.6<sub>A</sub> refer to page 459
- EPIC® DATA AX RJ45 Cat.6<sub>A</sub> IP68 refer to page 460
- EPIC® DATA M12D refer to page 462
- EPIC® DATA M12X refer to page 462
- EPIC® DATA CCR FA refer to page 463