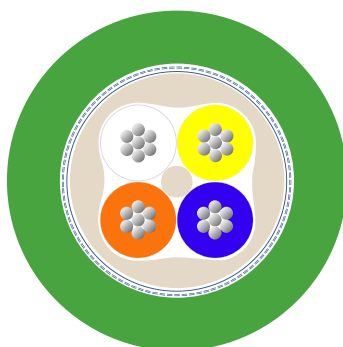


2170894	DATA SHEET	
valid from: 29.04.2025	ETHERLINE® FD P FC Cat. 5 1x4x22/7 AWG	

Application

Field of use:	Highly flexible Industrial Ethernet cable for generic cable system acc. to ISO/IEC 11801 and EN 50173. Suitable for continuous flexing, e.g. applications in drag chains and permanent moved machine parts. Meeting the transmission characteristics of IEC 61156-6, Category 5e and EN 50288-2-2. PROFINET® Type C acc. to the "PROFINET® Cabling and Interconnection Technology" guideline.
Performance:	quad, overall braid and foil screened quad cable (SF/UTQ), having a nominal impedance of 100 Ω, suitable for frequencies up to 500 MHz, supporting a bandwidth of 100 Mbit/s (e.g. 10BASE-T, 100BASE-T) over up to 100 m.
Characteristics:	the "Fast Connect" design allows easy stripping and assembly of the cable, flame retardant, oil resistant, UV resistant, halogen free, PWIS-free and largely resistant to acids, alkalis and certain oils
Applications:	PROFINET® Type C highly flexible cable for use in drag chain applications, EtherCAT, EtherNet/IP, PoE (IEEE 802.3af), PoE+ (IEEE 802.3at), 4PPoE (IEEE 802.3bt) and other



Design

Certification	E236660 c(UL)us CMX 75°C acc. to UL 444 and CSA C22.2 No. 214
Conductor	stranded tinned copper 22/7 AWG (nom. 0.34 mm ²) conductor diameter: nom. 0.75 mm
Insulation	PO (Polyolefine) core diameter: max. 1.5 mm
Core identification code	pair 1: white/blue, pair 2: yellow/orange
Stranding	cores stranded to star quad
Inner sheath	HFFR (Halogen free, flame retardant material) outer diameter: nom. 4.1 mm
Screen	plastic laminated aluminum foil on top: braid of tinned copper wires (coverage: nom. 85 %)
Outer sheath	TPU (Thermoplastic polyurethane) colour: green, similar RAL 6018 outer diameter: 6.5 mm ± 0.3 mm

Electrical properties at 20 °C

Loop resistance	max. 11.48 Ω/100 m
Test voltage	core/core: 700 V core/screen: 700 V
Rated voltage	300 V acc. to UL 444
Maximum operating voltage	125 V (not intended to be used in conjunction with low impedance sources, such as power grids)
Insulation resistance	min. 5 GΩ xkm
Mutual capacitance	nom. 52 nF/km
Transfer impedance	Grade 1 acc. to IEC 61156-6 1 MHz: ≤ 15 mΩ/m 10 MHz: ≤ 10 mΩ/m 30 MHz: ≤ 30 mΩ/m 100 MHz: ≤ 100 mΩ/m

AbN
automation

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