

Industry Link TWINFLEX and rugged minicord breakout cables



Rugged minicord breakout



Industry Link TWINFLEX

Properties

- Metal free indoor and outdoor cable
- For direct connector assembly with strain relief
- Strain relieved with aramide yarn
- Ripcord for easy jacket removal
- Halogen free and non-corrosive fire gases
- Improved crush resistance
- For high thermal and mechanical stability
- High chemical resistance against acids and alkalies
- High abrasive resistance

Applications

- For flexible, moved and fixed use
- Industrial Ethernet and LAN
- Machine cabling, drag chains
- As control or data cable in factory automation
- Mobile data cabling for harsh environment
- Connection to outdoor devices

Design

Cable design	2 single fiber cables with tight tubes 1 ripcord
Strain relief	aramide yarn
Jacket material	TPU
Jacket colour	black

According to IEC 60794-1-2

Ordering information

Rugged minicord breakout	02-.../FJ(ZN)Z-...17
TWINFLEX	02-.../...(ZN)Z-...22

Please see page 166.

Conformance

TWINFLEX cables with H200 and POF meet PROFINET specification.

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Specification							
Cable type		rugged minicord breakout		Industry Link TWINFLEX			
Fiber types		E9, G50, G62	H200	G50, G62	H200	POF980	
Jacket Ø	mm	6.0		7.5 × 8.0			
Single fiber cable Ø	mm	1.7		2.2			
Tube Ø	mm	0.9	0.9	0.9	0.5	2.2	
Channel marking on single fiber		numbered		black and orange with arrows			
Approx. weight	kg/km	28		46			

Mechanical properties								
Tensile strength	during installation	N	2000	2000	2000	2000	2000	IEC 60794-1-2 E1
	in service	N	1000	500	1000	1000	1000	
Min. bend radius	during installation	mm	25	25	40	60	25	IEC 60794-1-2 E11
	in service	mm	25	25	25	50	25	
Crush resistance	short-term	N/dm	6000	2000	6000	6000	6000	IEC 60794-1-2 E3
	long-term	N/dm	2000	1000	2000	2000	4000	
Impact resistance	Wp = 1.5 J Wp = 2.2 J	impacts	200	200	200	200	200	IEC 60794-1-2 E4
Repeated bending	r = 30 mm/10 kg r = 60 mm/1 kg	cycles	20 000		10 000	10 000	10 000	IEC 60794-1-2 E6
Flexing	r = 77 mm	cycles	100 000					HUBER+SUHNER ¹⁾
Flexing	r = 70 mm r = 80 mm				100 000	100 000	100 000	IEC 60794-1-2 E8 IEC 60794-1-2 E8
Torsion	± 360° ± 1440°	cycles	3		100	10	10	IEC 60794-1-2 E7

Thermal properties						
Temperature range	during installation	°C	-20 to +60	-10 to +60	-30 to +70	IEC 60794-1-22 F1
	in service	°C	-40 to +70	-20 to +70	-30 to +70	
	in storage	°C	-40 to +70	-25 to +70	-30 to +70	

Combustion properties							
Fire load	MJ/m	0.6	0.6	0.75	0.75	0.93	
2011/65/EC (RoHS)		compliant					

Conformance							
PROFINET	Specification ²⁾					yes	yes

¹⁾ Drag chain test

²⁾ Standard with H+S marking. According to PROFINET specification with PROFINET marking (PROFINET Type C 2K200/230 or PROFINET Type C 2P980/1000)