

Glass-armoured multi-fiber loose tube cables – simplex and TWINTUBE



Simplex - up to 12 fibers



TWINTUBE - up to 24 fibers

Design

Cable design	1 – 2 multi-fiber loose tubes, jelly-filled with 2 – 12 fibers
Strain relief	glass-rovings
Rodent protection	steel-armoured
Jacket material	LSFH™
Jacket colour	black

Properties

- Steel-armoured indoor and outdoor cable
- Rodent-protected (steel-armoured)
- For use in ducts and unprotected environment
- For high mechanical requirements
- Halogen free and non-corrosive fire gases
- Longitudinal and transversal watertight cable

Applications

- For outdoor and indoor installations and in mechanically unprotected environments
- As data cable in distribution networks
- For installations directly in the ground

According to IEC 60794-1-2

Ordering information

12-.../W(ZN)HAH-...80
24-.../W(ZNG)HAH-...125
Please see page 150

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Specification	Simplex	TWINTUBE		
Jacket material	LSFH™	LSFH™	mm	
Jacket Ø	8.0	12.5	mm	
Multi-fiber loose tube	standard	standard	mm	
Approx. weight	82	215	kg/km	

Mechanical properties					
Tensile strength	during installation	1000	3000	N	IEC 60794-1-2 E1
	in service	500	1500	N	
Min. bend radius	during installation	120	190	mm	IEC 60794-1-2 E11
	in service	80	125	mm	
Crush resistance	short-term	400	800	N/cm	IEC 60794-1-2 E3
	long-term	200	400	N/cm	
Impact resistance	W _p = 4.41 J	50		impacts	IEC 60794-1-2 E4
	W _p = 15 J		3	impacts	
Repeated bending	r = 80 mm, weight = 2.5 kg	5000		cycles	IEC 60794-1-2 E6
Water penetration	h = 1 m, 24 h, p < 3 m		p		IEC 60794-1-2 F5B

* refers to the flat side of the cable

Thermal properties					
Temperature range	during installation	-10 to +60	-10 to +50	°C	IEC 60794-1-2 F1
	in service	-40 to +70	-20 to +70	°C	
	in storage	-40 to +70	-40 to +70	°C	

Specification for singlemode at 1550 nm, for multimode at 1300 nm

Combustion properties					
Fire load		1.32	3.17	MJ/m	
Fire propagation	on a vertical single cable	p	p		IEC 60332-1
Fire propagation	on a vertical cable bundle	p			IEC 60332-3-23
Fire propagation	on a vertical cable bundle		p		IEC 60332-3-24
Smoke density		p	p		IEC 61034-2
Halogen acid gas	jacket material	p	p		IEC 60754-1
Degree of acidity	jacket material	p	p		IEC 60754-2
Fire test	with circuit integrity (CI)	180	180	min.	IEC 60331-25
2002/95/EC (RoHS)		compliant			

p = passed