

# Glass-armoured multi-fiber loose tube cables – from 72 fibers



## Design

Cable design	6 - 12 multi-fiber loose tube, jelly-filled with 2 - 12 fibers strength member 2 ripcords
Strain relief and rodent protection	glass-armoured
Jacket material	LSFH™
Jacket colour	black (optional with 2 orange stripes)

## Properties

- Metal free indoor / outdoor cable
- Rodent protection (glass-armoured)
- Ripcord for easy jacket removal
- For high mechanical requirements
- Low smoke, halogen free and self-extinguishing
- Longitudinal and transversal watertight cable

## Applications

- Data cable in distribution networks
- For outdoor installation in ducts
- For applications involving high safety requirements in case of fire
- Maximum 12 loose tubes with maximum 12 fibers = 144 fibers

According to IEC 60794-1-2

## Ordering information

72-.../BWSN(ZNG)H-...117  
96-.../BWSN(ZNG)H-...130  
120-.../BWSN(ZNG)H-...140  
144-.../BWSN(ZNG)H-...150  
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Specification	6	8	10	12		stranding
Fiber up to	72	96	120	144		
Jacket material	LSFH™	LSFH™	LSFH™	LSFH™		
Jacket Ø	11.7	13.0	14.0	15.0	mm	
Multi fiber loose tube	mini	mini	mini	mini		
Approx. weight	135	154	197	244	kg/km	

Mechanical properties							
Tensile strength	during installation	9000	9000	12000	15000	N	IEC 60794-1-2 E1
	in service	4500	4500	6000	7500	N	
Min. bend radius	during installation	165	180	200	225	mm	IEC 60794-1-2 E11
	in service	110	120	135	150	mm	
Crush resistance	short-term	800	800	800	800	N/cm	IEC 60794-1-2 E3
	long-term	300	300	300	300	N/cm	
Impact resistance	Wp = 2.21 J	50	50	50	50	impact	IEC 60794-1-2 E4
Water penetration	h = 1 m, 24 h, p < 3 m	p	p	p	p		IEC 60794-1-2 F5A

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

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

Combustion properties							
Fire load		3.1	3.8	4.9	5.8	MJ/m	
Fire propagation	on a vertical single cable	p	p	p	p		IEC 60332-1
Fire propagation	on a vertical cable bundle	p	p	p	p		IEC 60332-3-24
Smoke density		p	p	p	p		IEC 61034-2
Halogen acid gas	jacket material	p	p	p	p		IEC 60754-1
Degree of acidity	jacket material	p	p	p	p		IEC 60754-2
2002/95/EC (RoHS)		compliant					

p = passed