

# Glass-armoured multi-fiber loose tube cables - up to 24 fibers



## Design

Cable design	multi-fiber loose tube, jelly-filled
Strain relief and rodent protection	glass-armoured
Jacket material	LSFH™
Jacket colour	black

## Properties

- Metal free indoor / outdoor cable
- Rodent protection (glass-armoured)
- For high mechanical requirements
- Halogen free and non-corrosive fire gases
- Low fire load for high safety requirements
- Longitudinal and transversal watertight cable
- For MASTERLINE applications

## Applications

- For installation directly in the ground and in mechanically unprotected environments
- Data cable in distribution networks
- For installation outdoor, in wet cable ducts and pipes
- Ideal for high safety requirements in case of a fire

According to IEC 60794-1-2

## Approvals

UL listed acc. OFN / OFNG

## Ordering information

12-.../W(ZNG)H-...85  
12-.../W(ZNG)H-...85-UR (optional)  
24-.../W(ZNG)H-...85  
24-.../W(ZNG)H-...85-UR (optional)  
12-.../W(ZNG)H-...120  
Please see page 147

## Glass-armoured multi-fiber loose tube cables - up to 24 fibers

Specification						
Jacket material		LSFH™	LSFH™	LSFH™		
Jacket Ø		8.5	8.5	12.0	mm	
Number of fibers each bundle		2 - 12	24	2 - 12		
Multi fiber loose tube		standard	standard	standard		
Approx. weight		83	83	178	kg/km	

Mechanical properties						
Tensile strength	during installation	3000	3000	9000	N	IEC 60794-1-2 E1
	in service	1500	1500	4500	N	
Min. bend radius	during installation	130	130	180	mm	IEC 60794-1-2 E11
	in service	80	80	120	mm	
Crush resistance	short-term	1000	1000	3000	N/cm	IEC 60794-1-2 E3
	long-term	300	300	1500	N/cm	
Impact resistance	Wp = 4.41 J	30	30	30	impacts	IEC 60794-1-2 E4
Repeated bending	r = 80 mm / 2.5 kg	5000	5000	5000	cycles	IEC 60794-1-2 E6
Torsion	± 1440°	3	3	3	cycles	IEC 60794-1-2 E7
Water penetration	h = 1 m, 24 h, p < 3 m	p	p	p		IEC 60794-1-2 F5B

Thermal properties						
Temperature range	during installation	-10 to +50	-10 to +50	-10 to +50	°C	IEC 60794-1-2 F1
	in service	-40 to +70	-20 to +70	-20 to +70	°C	
	in storage	-40 to +70	-40 to +70	-25 to +70	°C	

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

Combustion properties						
Fire load		1.5	1.5	3.1	MJ/m	
Fire propagation	on a vertical single cable	p	p	p		IEC 60332-1
Fire propagation	on a vertical cable bundle	p	p	p		IEC 60332-3-24
Fire test	with circuit integrity (CI)	180		180	min.	IEC 60331-25
Smoke density		p	p	p		IEC 61034-2
Halogen acid gas	jacket material	p	p	p		IEC 60754-1
Degree of acidity	jacket material	p	p	p		IEC 60754-2
2002/95/EC (RoHS)		compliant				

p = passed