

Ruggedized Breakout Fiber Cable

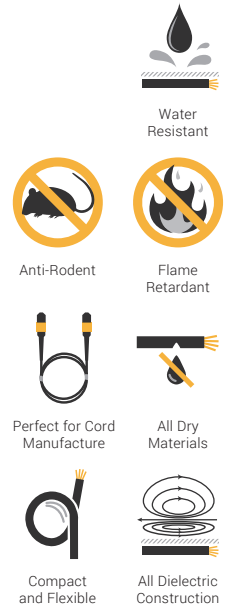
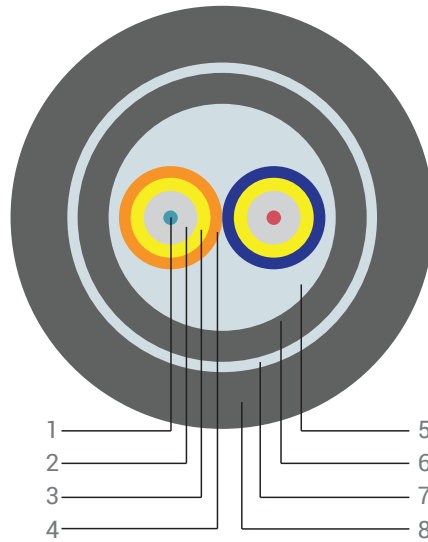
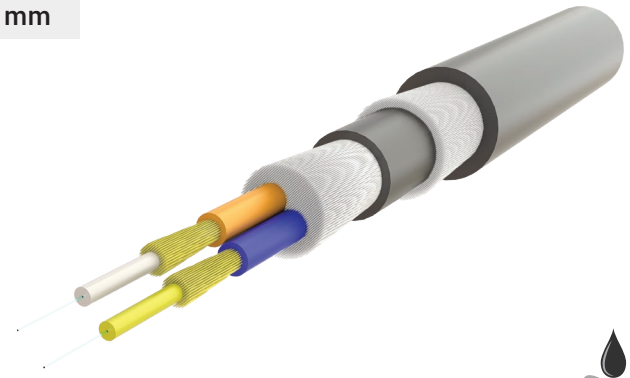
Design Type **UT-V(ZN)H(ZN)BH(ZN)BH Universal 8.2 mm**

Properties

- Metal free indoor and outdoor cable
- Completely dry design
- Rodent-protected with glass-armoured
- For direct connector assembly with strain relief
- High flexibility and light weight
- Halogen free and non-corrosive fire gases
- Low fire load for high safety requirements
- LSZH - FR, UV Resistant Outer Jacket

Cable Construction

1 Fiber	SM or MM (250 μ)
2 Tight Buffer Tube	900μ LSZH
3 Strength Member	Swellable Aramid
4 Sub-unit Jacket	LSZH
5 Strength Member	Swellable Glass Yarn
6 Inner Jacket	LSZH - FR, UV Resistant
7 Strength Member	Swellable Glass Yarn
8 Outer Jacket	LSZH - FR, UV Resistant



Sheath Marking

Print Color/Method	White / Ink-Jet	(length marking 1 m intervals)
Cable Printing	Manufacturer name, fiber count, fiber type, product code, cable type, date, meter marking	

Optical Characteristics and Physical Properties

Fiber Type		A2	OM2	OM3
Jacket Color		Black	Black	Black
Core Diameter (μm)		9.0 ±0.5	50 ±2.5	50 ±2.5
Cladding Diameter (μm)		125 ±5.0	125 ±5.0	125 ±5.0
Primary Coating Diameter (μm)		245 ±10	245 ±10	245 ±10
Attenuation (dB/km) (max. in cable)	@1310 nm	≤ 0.40	-	-
	@1550 nm	≤ 0.30	-	-
	@850 nm	-	≤ 3.0	≤ 3.0
	@1300 nm	-	≤ 1.0	≤ 1.0
Bandwidth (overfilled)	@850 nm	-	500 Mhz*km	1500 Mhz*km
	@1300 nm	-	500 Mhz*km	500 Mhz*km
Serial Ethernet	@850 nm	-	-	1000 meters
1 Gigabit	@1300 nm	-	-	600 meters
Serial Ethernet	@850 nm	-	-	300 meters
10 Gigabit	@1300 nm	-	-	300 meters

Mechanical and Environmental Properties

Test	Test Conditions	Value	Unit	Method
Tight Buffer Diameter	-	0.9	mm	IEC 60811-203
Sub-unit Diameter	-	2.0 ± 0.1	mm	IEC 60811-203
Inner Jacket Diameter	-	5.7 ± 0.1	mm	IEC 60811-203
Outer Jacket Diameter	-	8.2 ± 0.2	mm	IEC 60811-203
Approx. Weight	-	70 ± 10%	kg/km	-
Max. Tensile Strength	During installation	2000	N	IEC 60794-1-2 E1
	In service	1500		
Min. Bending Radius	During installation	120	mm	IEC 60794-1-2 E11
	In service	80		
Crush Resistance	Short term	3000	N/dm	IEC 60794-1-2 E3
	Long term	1500		
Impact Resistance	Wp=2,21J	50	impact	IEC 60794-1-2 E4
Repeated Bending	r=120mm, 1 kg	10	cycles	IEC 60794-1-2 E6
Torsion	±360°	10	cycles	IEC 60794-1-2 E7
Water Penetration	L=1m, 24 h, p<1m	passed	-	IEC 60794-1-2 F5A
Temperature Range	During installation	+5 to +50		IEC 60794-1-22 F1
	In service	-40 to +70	°C	
	In storage	-40 to +70		

Combustion Properties

Property	Test Conditions	Value	Unit	Result	Method
Fire Load	-	1.15	Mj/m	-	-
Fire Propagation	On a vertical single cable	-	-	passed	IEC 60332-1-2
Smoke Density	-	-	-	passed	IEC 61034-2
Halogen Acid Gas	Jacket material	-	-	passed	IEC 60754-1
Degree of Acidity	Jacket material	-	-	passed	IEC 60754-2

Cable Coding System

U - 02 - B20 - 82 - T9H - M2 - H - H - H - BK

Type	Fiber Count	Cable Type	Diameter	Buffer Type	Fiber Type	Sheath Mat.	Sheath Mat.	Sheath Mat.	Color
Universal: U	2 Fibers: 02	Breakout 2mm: B20	8.2 mm: 82	Tight 900µm: T9H	SM G.657 A2: A2 MM G.651 OM2: M2 MM G.651 OM3: M3	LSZH: H	LSZH: H	LSZH: H	Black: BK A2 Black: BK B3 Black: BK M2