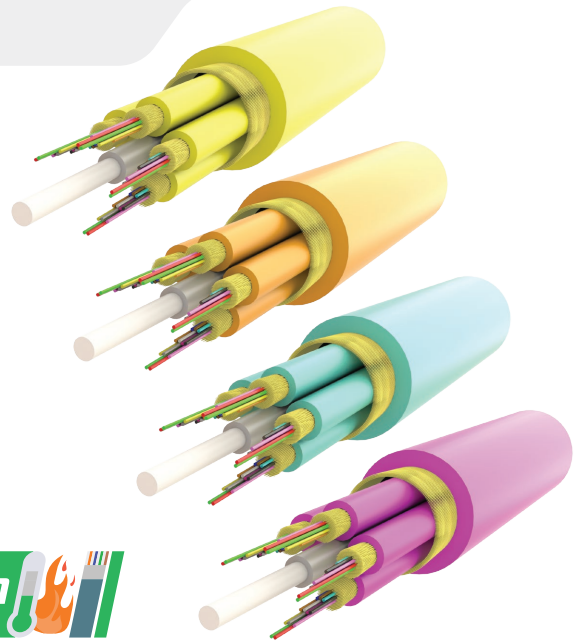


## Multi-Fiber Breakout Cable up to 288 Fibers

Design Type UT-(ZN)H(ZN)H Universal



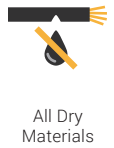
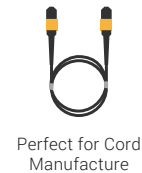
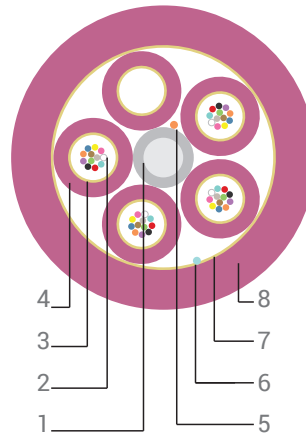
### Properties

- Metal free indoor cable
- Completely dry design
- For direct connector assembly
- High flexibility and light weight
- Halogen free and non-corrosive fire gases
- Low fire load for high safety requirements
- Jacket material in accordance with UL 94V-0



### Cable Construction

1	Central Strength Member	FRP
2	Fiber	SM or MM (250 μ)
3	Strength Member	Swellable Aramid Yarn
4	Inner Jacket	LSZH UV Resistant
5	Water Blocking Element	Water Swellable Yarn
6	Ripcord	Polyester
7	Strength Member	Swellable Aramid Yarn
8	Outer Jacket	LSZH - FR, UV Resistant



### Sheath Marking

Print Color/Method	Black / 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		SM	OM1	OM2	OM3	OM4
Jacket Color		Yellow	Orange	Orange	Aqua	Violet
Core Diameter (μm)		9.0 ±0.5	62.5 ±2.5	50 ±2.5	50 ±2.5	50 ±2.5
Cladding Diameter (μm)		125 ±5.0	125 ±5.0	125 ±5.0	125 ±5.0	125 ±5.0
Primary Coating Diameter (μm)		245 ±10	245 ±10	245 ±10	245 ±10	245 ±10
Attenuation (max. in cable) (dB/km)	@1310 nm	≤ 0.40	-	-	-	-
	@1550 nm	≤ 0.30	-	-	-	-
	@850 nm	-	≤ 3.4	≤ 3.0	≤ 3.0	≤ 3.0
	@1300 nm	-	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0
Bandwidth (overfilled)	@850 nm	-	200 Mhz*km	500 Mhz*km	1500 Mhz*km	3500 Mhz*km
	@1300 nm	-	500 Mhz*km	500 Mhz*km	500 Mhz*km	500 Mhz*km
Serial Ethernet 1 Gigabit	@850 nm	-	-	-	1000 meters	1040 meters
	@1300 nm	-	-	-	600 meters	600 meters
Serial Ethernet 10 Gigabit	@850 nm	-	-	-	300 meters	550 meters
	@1300 nm	-	-	-	300 meters	300 meters

## Mechanical and Environmental Properties

Test	Test Conditions	Type	Value	Unit	Method
Tube Diameter	-	All types	3.0	mm	-
Approx. Cable Diameter - Weight		4x12	11.5 - 124.0	mm-kg/km	-
		6x12	12.4 - 147.0		
		12x12	18.0 - 315.0		
		12x24	18.6 - 350.0		
Max. Tensile Strength	During installation	4x12	1800/1300	N	IEC 60794-1-2 E1
	/ In service	6x12 / 12x12	2400/1500		
		12x24	4000/3000		
Min. Bending Radius	During installation	4x12	115/170	mm	IEC 60794-1-2 E11
	/ In service	6x12	125/185		
		12x12	180/270		
		12x24	185/280		
Crush Resistance	Short term	All types	3000	N/dm	IEC 60794-1-2 E3
	Long term		1500		
Impact Resistance	Wp=2.21 J	All types	20	impact	IEC 60794-1-2 E4
Temperature Range	During installation		-10 to +50	°C	IEC 60794-1-22 F12
	In service	-	-30 to +70		
	In storage		-40 to +70		

## Combustion Properties

Property	Test Conditions	Type	Result	Method
Euroclass CPR Level	-	All types	B2ca, s1 a, d0, a1	-
Fire Propagation	On a vertical single cable	All types	passed	IEC 60332-1-2
Smoke Density	-	All types	passed	IEC 61034-2
Halogen Acid Gas	Jacket material	All types	passed	IEC 60754-1
Degree of Acidity	Jacket material	All types	passed	IEC 60754-2

## Cable Coding System

U - 48 - MFB - 115 - MF - M4 - H - H - VT - B2ca

Type	Fiber Count	Cable Type	Diameter	Tube Type	Fiber Type	Sheath Mat.	Sheath Mat.	Color
Universal: U	48 Fiber: 48 72 Fiber: 72 144 Fiber: 144 288 Fiber: 288	Multi-Fiber Breakout: MFB	11.5 mm: 115 12.4 mm: 124 18.0 mm: 180 18.6 mm: 186	Multi-Fiber: MF	SM G.657 A2: A2 SM G.657 B3: B3 MM G.651 OM1: M1 MM G.651 OM2: M2 MM G.651 OM3: M3 MM G.651 OM4: M4	LSZH: H	LSZH: H	Yellow: YE A2 Yellow: YE B3 Orange: OG M1 Orange: OG M2 Aqua: AQ M3 Violet: VT M4