

## Mini Breakout Cable up to 24 Fibers

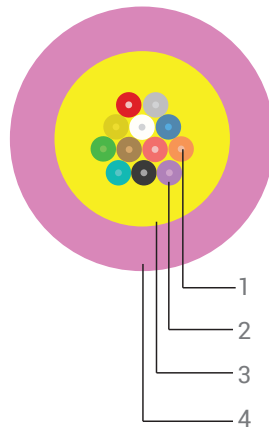
Design Type IT-V(ZN)H Indoor

### Properties

- Metal free indoor and outdoor 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

### Cable Construction

1 Fiber	SM or MM (250 μ)
2 Tight Buffer Tube	900μ LSZH
3 Strength Member	Aramid
4 Outer Jacket	LSZH



- Perfect for Cord Manufacture
- All Dry Materials
- Compact and Flexible
- All Dielectric Construction

### 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	@850 nm	-	-	-	1000 meters	1040 meters
1 Gigabit	@1300 nm	-	-	-	600 meters	600 meters
Serial Ethernet	@850 nm	-	-	-	300 meters	550 meters
10 Gigabit	@1300 nm	-	-	-	300 meters	300 meters

## Mechanical and Environmental Properties

Test	Test Conditions	Type	Value	Unit	Method
Tight Diameter	-	All types	0.9	mm	IEC 60811-203
Approx. Cable Diameter - Weight	-	4 Fibers	4.6 - 16	mm - kg/km	IEC 60811-203
		6 Fibers	5.2 - 20		
		8 Fibers	5.8 - 31		
		12 Fibers	6.5 - 42		
		24 Fibers	8.0 - 55		
Max. Tensile Strength	During Installation	All types	800	N	IEC 60794-1-2 E1
	In Service		500		
Min. Bending Radius	During Installation	All types	15xD	mm	IEC 60794-1-2 E11
	In Service		10xD		
Crush Resistance	Short Term	All types	4000	N/dm	IEC 60794-1-2 E3
	Long Term		1500		
Impact Resistance	Wp=2.21J	All types	100	Impact	IEC 60794-1-2 E4
Repeated Bending	r=40mm, weight=1 kg	4 Fibers	1000	cycles	IEC 60794-1-2 E6
	r=50mm, weight=1 kg	6-24 Fibers	2000		
Temperature Range	During installation	All types	-10 to +50	°C	IEC 60794-1-22 F1
	In service		-20 to +70		
	In storage		-25 to +70		

## Combustion Properties

Property	Test Conditions	Type	Value	Unit	Result	Method
Fire Load	-	4 FO	0.4	Mj/m	-	-
		6 FO	0.7			
		8 FO	0.9			
		12 FO	1.1			
		24 FO	1.7			
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

I - 12 - RI - 65 - T9H - M4 - H - VT

Type	Fiber Count	Cable Type	Diameter	Buffer Type	Fiber Type	Sheath Mat.	Color
Indoor: I	4 Fiber: 04 6 Fiber: 06 8 Fiber: 08 12 Fiber: 12 24 Fiber: 24	Riser: RI	4.6 mm: 46 5.2 mm: 52 5.8 mm: 58 6.5 mm: 65 8.0 mm: 80	S-Tight 900µm: S9H  Tight 900µm: T9H	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	Yellow: YE A2 Yellow: YE B3 Orange: OG M1 Orange: OG M2 Aqua: AQ M3 Violet: VT M4