

## Duplex Cable - FIG 8

### Design Type I-V(ZN)H-FIG 8 Indoor Cable

### Fiber Optic Cable Data Sheet

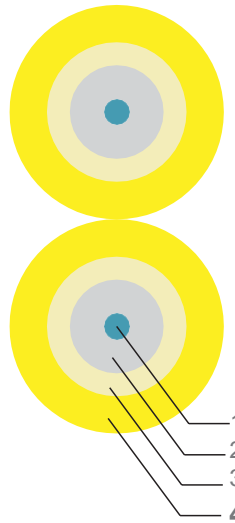
#### Properties

- 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 Fiber	<b>SM or MM (250 μ)</b>
2 Semi-Tight Buffer Tube	<b>900μ LSZH</b>
3 Strength Member	Aramid yarn
4 Inner Jacket	<b>LSZH</b>



#### Sheath Marking

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

#### Optical Characteristics and Physical Properties

Fiber Type		SM	OM1	OM2	OM3	OM4
Jacket Color		<b>Yel/ow</b>	Orange	Orange	<b>Aqua</b>	<b>Violet</b>
Core Diameter (μm)		<b>9.0 ±0.5</b>	<b>62.5 ±2.5</b>	<b>50 ±2.5</b>	<b>50 ±2.5</b>	<b>50 ±2.5</b>
Cladding Diameter (μm)		<b>125 ±5.0</b>	<b>125 ±5.0</b>	<b>125 ±5.0</b>	<b>125 ±5.0</b>	<b>125 ±5.0</b>
Primary Coating Diameter (μm)		<b>245 ±10</b>	<b>245 ±10</b>	<b>245 ±10</b>	<b>245 ±10</b>	<b>245 ±10</b>
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	-	<b>200 Mhz*km</b>	<b>500 Mhz*km</b>	<b>1500 Mhz*km</b>	<b>3500 Mhz*km</b>
	@1300 nm	-	<b>500 Mhz*km</b>	<b>500 Mhz*km</b>	<b>500 Mhz*km</b>	<b>500 Mhz*km</b>
Serial Ethernet	@850 nm	-	-	-	<b>1000 meters</b>	<b>1040 meters</b>
1 Gigabit	@1300 nm	-	-	-	<b>600 meters</b>	<b>600 meters</b>
Serial Ethernet	@850 nm	-	-	-	<b>300 meters</b>	<b>550 meters</b>
10 Gigabit	@1300 nm	-	-	-	<b>300 meters</b>	<b>300 meters</b>

## Mechanical and Environmental Properties

Test	Test Conditions	Type	Value	Unit	Method
Approx. Cable Diameter		<b>1.8x3.7mm</b>	<b>6.6</b>		
Approx. Cable Weight	-	<b>2.0x4.1mm</b>	<b>9.0</b>	kg/km	<b>IEC 60811-203</b>
		<b>2.7x5.5mm</b>	<b>14.3</b>		
Max. Tensile Strength	<b>During installation</b>	<b>1.8x3.7</b>	<b>400</b>	N	<b>IEC 60794-1-2 E1</b>
	In service	<b>2.0x4.1</b>	<b>2x100</b>		
	<b>During installation</b>	<b>2.7x5.5</b>	<b>800</b>	N	<b>IEC 60794-1-2 E1</b>
	In service		<b>2x200</b>		
Min. Bending Radius	<b>During installation</b>	All Types	<b>50</b>	mm	<b>IEC 60794-1-2 E11</b>
	In service		25		
Crush Resistance	Short term	All Types	<b>4000</b>	N/dm	<b>IEC 60794-1-2 E3</b>
	Long term		<b>1000</b>		
Impact Resistance	<b>Wp=0.74J</b>	<b>1.8x3.7</b>	<b>40</b>		
	Wp=1J	<b>2.0x4.1</b>	<b>20</b>	impact	<b>IEC 60794-1-2 E4</b>
	Wp=1J	<b>2.7x5.5</b>	<b>20</b>		
Repeated Bending		<b>1.8x3.7</b>	<b>5000</b>		
	<b>r=25mm w=0.5 kg</b>	<b>2.0x4.1</b>	<b>5000</b>	cycles	<b>IEC 60794-1-2 E6</b>
		<b>2.7x5.5</b>	<b>10000</b>		
Temperature Range	<b>During installation</b>		<b>-10 to +50</b>		
	In service	All types	<b>-25 to +70</b>	°C	<b>IEC 60794-1-22 F1</b>
	In storage		<b>-40 to +70</b>		

## Combustion Properties

Fiber Type	Test Conditions	Type	Value	Unit	Result	Method
Fire Load		<b>1.8x3.7</b>	<b>0.13</b>			
	-	<b>2.0x4.1</b>	<b>0.22</b>	Mj/m	-	-
		<b>2.7x5.5</b>	<b>0.34</b>			
Fire Propagation	On a vertical single cable	-	-	-	passed	<b>IEC 60332-1-2</b>
Smoke Density	Jacket material	All types	-	-	passed	<b>IEC 61034-2</b>
Halogen Acid Gas	Jacket material	All types	-	-	passed	<b>IEC 60754-1</b>
Degree of Acidity	Jacket material	All types	-	-	passed	<b>IEC 60754-2</b>

## Cable Coding System

I - 02 - ZX - 2041 - S9H - A2 - H - YE

Type	Fiber Count	Cable Type	Diameter	Buffer Type	Fiber Type	Sheath Mat.	Color
Indoor: I	<b>2 Fibers: 02</b>	<b>Duplex: ZX</b>	1.8x3.7 mm: 1837 2.0x4.1 mm: 2041 2.7x5.5 mm: 2755	<b>S-Tight900µm:</b> S9H  <b>Tight900µm:</b> T9H	<b>SMG.657A2: A2</b> <b>SMG.657B3: B3</b> <b>MMG.651OM1: M1</b> <b>MMG.651OM2: M2</b> <b>MMG.651OM3: M3</b> <b>MMG.651OM4: M4</b>	<b>LSZH: H</b>	<b>Yellow:</b> YE A2 <b>Yellow:</b> YE B3 Orange: OR M1 Orange: OR M2 <b>Aqua:</b> AQ M3 <b>Violet:</b> VI M4