



Metallurgica Bresciana s.p.a.

Technical Dept.

TECHNICAL DATA SHEET

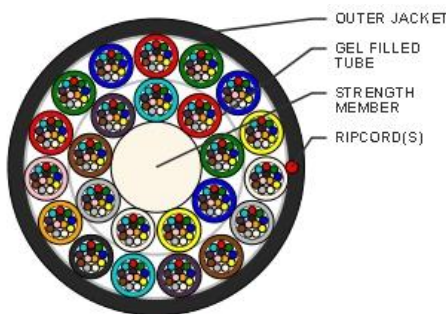
Specification n°3357.FO.800

MICRO A-DQ(ZN)2Y nn x ff E9/125 (nn = 1 to 24; ff = 12 or 24) OFC

Product Details

STL Multitube Single Jacket Fibre Optic Micro Cables are typically used in micro duct application. This cable is a stranded micro loose tube cable with optical fibre placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel to prevent water ingress in the cable.

Construction Diagram



* Typical Construction Diagram - Not to Scale

Features & Benefits

• As compared to conventional cable, Micro Cable diameter is less and thereby reducing installation costs • Excellent solutions for new and existing duct systems • Typically blown into micro ducts previously installed into large ducts • Dry water-blocking technology for gel free core helps in quicker end preparation • Easily removable rugged thermoplastic jacket • Flexible, light weight, easy to handle & install

Specifications

Physical Characteristics

Fibre Type	Sterlite Fibre ITU-T G.657.A1/ITU-T G.652D
Maximum Cabled Attenuation (dB/km)	1310nm : 0.35 & 1550nm : 0.23 & 1625nm : 0.26
PMD LDV (ps/sqrt.km)	<= 0.1
Fibres per Tube	12 or 24
Fibre Color Sequence	Blue,Orange,Green,Brown,Slate,White,Red,Black,Yellow,Violet,Pink,Aqua. Fibre optics from 13 to 24, will have the same colour with the addition of black rings every 50 mm. Black ring fibre substituted with a transparent (natural colour) + black ring
Central Strength Member	FRP (Fibre Reinforced Plastic)
Tube Color Sequence	Blue,Orange,Green,Brown,Slate,White,Red,Black,Yellow,Violet,Pink,Aqua, Blue#,Orange#,Green#,Brown#,Slate#,White#,Red#,Black#,Yellow#,Violet#, Pink#,Aqua#.
Filler Color	Natural
Outer Sheath Material	UV Stabilized Black Polyethylene
Nominal Sheath Thickness (mm)	0.5
No of Ripcords Below Sheath	1

Notes: # - denotes single black stripe marking. White stripe on black tube.
- Other fibres and tubes colour sequences are available on request.

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Cable Designs with 250 µm Fibres ⁴							
Fibre Count	Tubes/ Fillers	Min. Duct Inner Diameter (mm)	Cable Diameter ⁵ (mm) ± 0.3 mm	Cable Weight (kg/km) ± 10%	FRP/Overcoating Diameter (mm)	Loose Tube Diameter (mm)	Max. Tensile Strength Short Term (N)
12	1/5	8	5.7	28	1.6	1.5	500
24	2/4	8	5.7	28	1.6	1.5	500
36	3/3	8	5.7	28	1.6	1.5	500
48	4/2	8	5.7	28	1.6	1.5	500
72	6/0	8	5.7	28	1.6	1.5	500
96	8/0	8	6.0	35	2.2	1.4	500
144	12/0	12	8.0	50	2.5/4.0	1.4	1000
144	6/0	10	6.8	40	2.0	1.9	500
192	8/0	10	7.8	56	2.8	1.9	1000
288	(9+15)/0	18	9.4	75	2.8	1.4	1500
432	(6+12)/0	18	12.5	118	2.2	2.2	1000
576	(9+15)/0	18	13.4	130	2.8/4.2	2.0	1000

Cable Designs with 200 µm Fibres ⁴							
Fibre Count	Tubes/ Fillers	Min. Duct Inner Diameter (mm)	Cable Diameter ⁵ (mm) ± 0.3 mm	Cable Weight (kg/km) ± 10%	FRP/Overcoating Diameter (mm)	Loose Tube Diameter (mm)	Max. Tensile Strength Short Term (N)
12	1/5	8	4.6	20	1.4	1.2	500
24	2/4	8	4.6	20	1.4	1.2	500
36	3/3	8	4.6	20	1.4	1.2	500
48	4/2	8	4.6	20	1.4	1.2	500
72	6/0	8	4.6	20	1.4	1.2	500
96	8/0	8	5.9	34	2.2	1.3	500
144	12/0	10	7.6	45	2.5	1.3	500
144	6/0	8	6.1	34	1.8	1.65	500
192	8/0	10	7.2	51	2.5	1.65	500
216	9/0	10	7.5	54	2.8	1.65	500
288	(9+15)/0	10	7.9	70	2.3	1.25	800
432	(6+12)/0	12	8.8	70	1.8	1.55	1000
576	(9+15)/0	14	10.3	92	3.2	1.55	1000

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Mechanical & Environmental Characteristics

Cable Characteristics	Testing Standard	Cable Performance
Tensile Strength (N)	IEC-60794-1-21-E1	As per above tables
Crush Resistance (N/100 mm)	IEC-60794-1-21-E3	500
Impact Strength(Nm)	IEC-60794-1-21-E4	2
Torsion	IEC-60794-1-21-E7	±360°
Repeated Bending	IEC-60794-1-21-E6	20 D
Bend	IEC-60794-1-21-E11	20 D
Min. Bend Radius (During Installation)		20 D
Min. Bend Radius (After Installation)		15 D
Water Penetration Test	IEC-60794-1-22-F5	1m waterhead, 3m samples, 24 h
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 h
Temperature Performance	IEC-60794-1-22-F1	Max. change in attenuation shall be ≤ 0.15 dB/km
Installation		-5°C to +50°C
Operation		-30°C to +70°C
Storage		-40°C to +70°C

Note : All tests shall be carried out as per IEC standards. Change in attenuation after testing shall be ≤ 0.1 dB/km

Cable Performance Standards

Cable complies to the following standards IEC 60793, IEC 60794-5-10, ITU-T, RoHS, REACH.

Packing and Lengths

Drum Type	: Wooden Drums
Length Multiple (km)	: $4/6 \pm 5\%$
Order Tolerance	: $\pm 5\%$
Short Lengths	: Max 5%, Customer Approval

Printing Details

Printing : STL SM FIBRE TYPE FIBRE COUNT – F MICRO OFC double sine symbol phone symbol YEAR OF MANUFACTURE LENGTH CODE METER MARKING

Note : The accuracy of marking shall be $\pm 0.5\%$. Occasional loss of printing & remarking shall be as per Bell core GR 20 and this supersedes the earlier markings.

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