



# STRUCTURED CABLING SYSTEMS

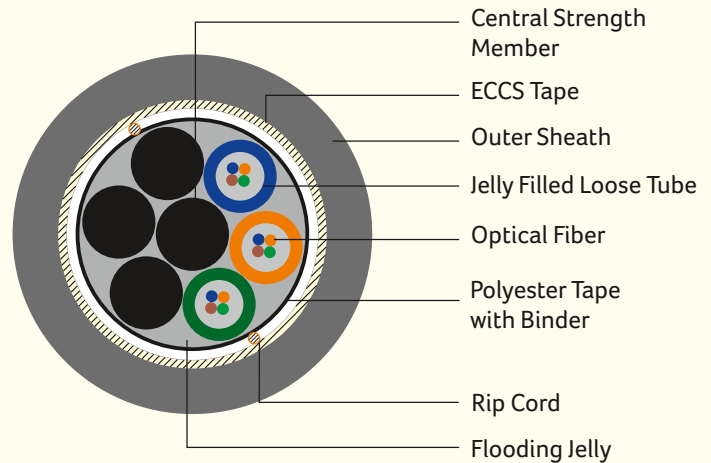
## DIGISOL Single Mode (OS2), Multitube Single Sheath Armoured Cable

### Introduction:-

DIGISOL Single Mode (OS2) Multitube Armoured Cable is a direct burial cable. It has multi loose tubes having fibers filled with thixotropic jelly to prevent water ingress and armoring made with high quality electro chromium corrugated steel tape. Fiber Reinforced Plastic provides better tensile strength and antibuckling properties along with cable flooding compound in interstices of core to prevent water ingress in core. Available in UV HDPE sheath and LSZH sheath.

### Key Features:-

- Suitable for Outdoor network direct burial
- Rodent proof
- UV protection
- Polyester based cord below armour tape for easy ripping
- Thermoplastic material loose tube
- Core covering Polyester tape with binder
- Excellent water proof layer and moisture resistance
- Excellent Crush resistance performance
- Light weight and Compact structure



### Constructional Specifications:-

Parameters / Fiber Cores	04 F	06 F	08 F	12 F	24 F	48 F	72 F	96 F
Number of Fiber per Tube	02	02	04	04	04	08	12	12
Fiber Colours	* *							
Number of Loose Tube	02	03	02	03	06	06	06	08
Loose Tube Colours	* *							
Number of Fillers	04	03	04	03	00	00	00	00
Loose Tube Internal Diameter	1.2 ± 0.1 mm (PBT)						1.4 ± 0.1 mm (PBT)	
Loose Tube Outer Diameter	1.9 ± 0.1 mm (PBT)						2.1 ± 0.1 mm (PBT)	
Central Strength Member	2.0 ± 0.1 mm (FRP Rod)						2.2 ± 0.1 mm <small>upgraded to 3.3mm</small>	
Moisture Barrier	Flooding Gel / Water Swellable Yarn							
Core Wrapping	Polyester Tape / Water Swellable Tape							
Armoring	≥ 0.150 mm (ECCS Tape)							
Number of Rip Cords	02 nos (Polyester)							
Outer Sheath Thickness	1.5 mm (Nominal) (HDPE/LSZH Black)							
Cable Diameter (mm)	10.5 ± 0.5				11.5 ± 0.5		12.5 ± 0.5	
Cable Weight (kg/km) (HDPE/LSZH)	110.0 ± 10 / 120.0 ± 10				125.0 ± 10 / 130.0 ± 10		145.0 ± 15 / 155.0 ± 15	

Fiber colours and Loose tube colours: \* \*

04 to 96 Fibers: Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Pink, Aqua, Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Pink, Natural

Fillers : Black

### Environmental Specifications:-

Storage Temperature : -40 °C to +60 °C  
 Installation Temperature : -20 °C to +70 °C  
 Operating Temperature : -20 °C to +60 °C

### Standards:-

IEC 60793-1 & 60794-1                      Teledcordia GR-20 Core  
 ANSI/TIA 568-C.3 & ISO/IEC 11801        ITU-T REC G.652D

### Mechanical Specifications:-

Parameters	Fiber Core : 04, 06, 08, 12, 24, 48, 72, 96 F	Standards
Tensile Strength	2200 N	IEC 60794-1-2-E1
Crush Resistance	4000 N/100 mm	IEC 60794-1-2-E3
Impact Strength	25 N.m	IEC 60794-1-2-E4
Torsion	± 180°	IEC 60794-1-2-E7
Minimum Bend Radius	20 x D	IEC 60794-1-2-E11

### Optical Fiber Specifications:-

Parameters	Fiber Core : 04, 06, 08, 12, 24, 48, 72, 96 F
Fiber Type	G.652D (OS2)
Attenuation	≤ 0.38 dB/km (@1310 nm) ≤ 0.25 dB/km (@1550 nm)
Chromatic Dispersion	≤ 3.5 ps/nm.km (@1285 - 1330 nm) ≤ 18 ps/nm.km (@1550 nm)
Zero Dispersion Wavelength	1300 - 1324 nm
Zero Dispersion Slope	≤ 0.092 ps/nm <sup>2</sup> .km
Polarisation Mode Dispersion	≤ 0.2 ps/km
Cut-off Wavelength	≤ 1260 nm
Mode Field Diameter	9.2 ± 0.4 μm (@1310 nm)
Core Cladding Concentricity Error	≤ 0.8 μm
Cladding Diameter	125 ± 1 μm
Cladding Non-circularity	≤ 1 %
Coating Diameter	245 ± 10 μm

### Cable Size & Standard Length:-

4F to 12F : 4.0 kms ± 10%  
 24F to 96F : 2.0 kms ± 10%

### Ordering Information:-

Part Codes	Description
DGF-CAS2OMSX-YY	DIGISOL SM(OS2) MULTITUBE, ARMOURED, SS, Y CORE, XX

Note: X / XX - Sheath Material - H / HDPE, L / LSZH

YY / Y - Number of fiber cores - 04 / 4, 06 / 6, 08 / 8, 12 / 12, 24 / 24, 48 / 48, 72 / 72, 96 / 96.

Example: DGF-CAS2OMSH-24 - DIGISOL SM(OS2), MULTITUBE, ARMOURED, SS, 24 CORE, HDPE  
 DGF-CAS2OMSL-06 - DIGISOL SM(OS2), MULTITUBE, ARMOURED, SS, 6 CORE, LSZH