

## Steel-Armoured Gel-Filled Central Loose Tube Cable up to 24 Fibers

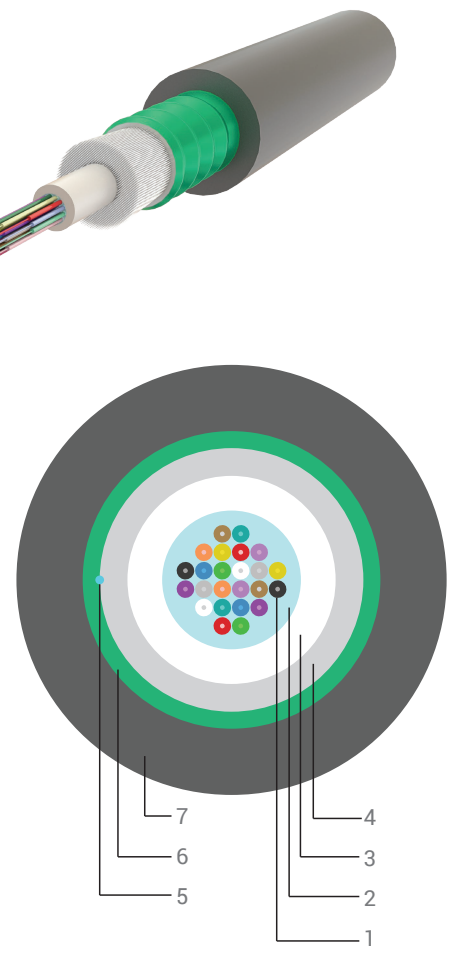
Design Type A-DQ(ZN)(SR)2Y Outdoor

### Properties

- Corrugated Steel Armoured Outdoor Cable
- Glass yarn strength member
- Ripcord for easy stripping
- Gel filled tube
- Halogen free and non-corrosive fire gases
- Low fire load for high safety requirements
- Longitudinal and transversal watertight cable

### Cable Construction

1 Fiber	SM (250 μ)
2 Tube Filling Material	Thixotropic Gel
3 Loose Tube	PBT
4 Strength Member	Swellable Glass Yarn
5 Ripcord	Polyester
6 Armoured Material	Corrugated Steel
7 Outer Sheath	UV Resistant PE



### Sheath Marking

Print Color/Method	White / 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		Black	Black	Black	Black	Black
Tube 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	Value		Unit	Method
Fiber Count	-	4-12F	24F	-	-
Tube Diameter	-	2.5 ±3%	3.0 ±3%	mm	IEC 60811-203
Approx. Cable Diameter	-	8.0 ±0.2	8.2 ±0.2	mm	IEC 60811-203
Approx. Cable Weight	-	68 ±10%	76 ±10%	kg/km	
Max. Tensile Strength	During Installation (Loaded)	1000		N	IEC 60794-1-2 E1
	In Service (Unloaded)	400			
Min. Bending Radius	During Installation (Loaded)	20xD		mm	IEC 60794-1-2 E11
	In Service (Unloaded)	15xD			
Crush Resistance	ShortTerm	3000		N/dm	IEC 60794-1-2 E3
	LongTerm	1600			
Impact Resistance	Wp=1.5J	3		Impact	IEC 60794-1-2 E4
Repeated Bending	r=20xD	35		cycles	IEC 60794-1-2 E6
Water Penetration	h=1m, 48h, p < 3m	passed		-	IEC 60794-1-22 F5B
Temperature Range	During installation	-30 to +60		°C	IEC 60794-1-22 F1
	In service	-20 to +70			
	In storage	0 to +70			

## Combustion Properties

Fiber Type	Test Conditions	Type	Value	Unit	Result	Method
Fire Load	-	All types	1.3	Mj/m	-	-
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

O - 24 - DI - 82 - SCL - DD - H - BK

Type	Fiber Count	Cable Type	Diameter	Tube Type	Fiber Type	Sheath Mat.	Color
Outdoor: O	4 Fiber: 04 6 Fiber: 06 8 Fiber: 08 12 Fiber: 12 24 Fiber: 24	Distribution: DI	8.0 mm: 80 8.2 mm: 82	Steel Armoured Central Loose Tube: SCL	SM G.652 D: DD 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	Polyethylene: P	Black: BK DD Black: BK A2 Black: BK B3 Black: BK M1 Black: BK M2 Black: BK M3 Black: BK M4