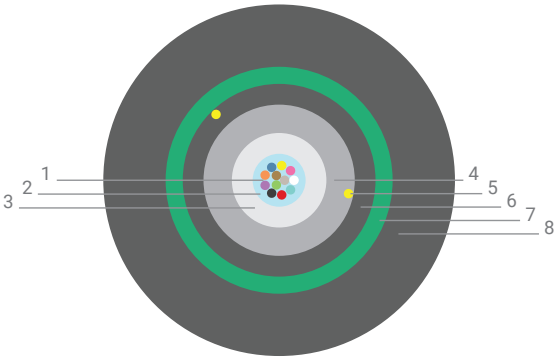
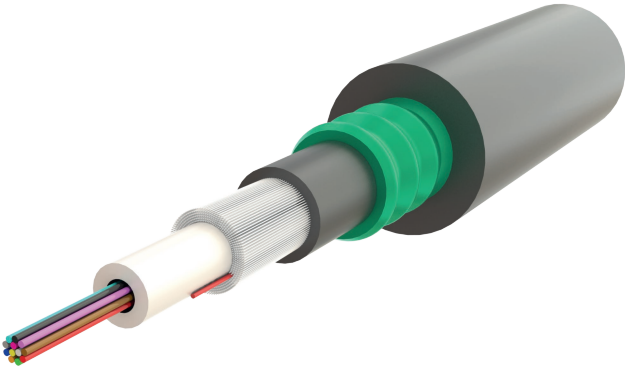
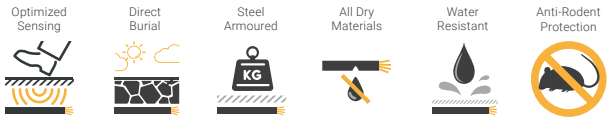


CLT, Gel-Filled, Dry Core, Steel Armoured, DJ, PE, DAS Sensing Cable

Design Type A-D1Q(ZN-GY)2Y(SR)2Y-1D250

Standards: IEC 60794-1 / IEC 60794-3 / IEC 60793-1



The FOTAS sensing cable is designed to integrate seamlessly with Distributed Acoustic Sensing (DAS) systems. It is optimized for direct burial applications such as pipeline monitoring, perimeter security, and border surveillance, ensuring optimal performance in these scenarios. The cable is engineered to withstand harsh field conditions while maintaining the sensitivity required to accurately detect intrusion events.

Properties

Corrugated Steel Armoured Outdoor Cable Up to 24Fibers
Optimized sensitivity for intrusion events detection in FOTAS systems
Glass yarn strength member
Gel-filled central tube
Has a ripcord for easy stripping
Double Jacket for Direct Burial
Longitudinal and transversal water resistant cable
PE outer jacket for use in ducts and unprotected environments

Cable Construction

1	Fiber	Single-mode or Multi-mode
2	Tube Filling Material	Thixotropic Gel
3	Loose Tube	PBT
4	Strength Member	Swellable Glass Yarn
5	Ripcord	Polyester
6	Inner Jacket	UV Resistant PE
7	Armoured Material	Corrugated Steel
8	Outer Jacket	UV Resistant PE

Identification

Print Color	White	(length marking 1 m intervals)
Sub-Unit Identification	Tube Coloring and Fiber Coloring; According to coloring code (ANSI/TIA-598)	
Cable Printing	SAMM, Design Type, Fiber Count, Fiber Type, WO Number, Date, Meter	

Mechanical Properties

Test	Conditions	Test Standard	Specified Value
Tensile Force	Installation	IEC 60794-1-21-E1	1500 N
	In Service		750 N
Crush Resistance	-	IEC 60794-1-21-E3	4000 N / 10 cm
Impact	-	IEC 60794-1-21-E4	Wp=20J, R:30cm, 3 impacts
Repeated Bending	-	IEC 60794-1-21-E6	R= 20 x D, 25 cycles
Torsion	-	IEC 60794-1-21-E7	L:1 m, ±180°, 5 cycles
Cable Bending	-	IEC 60794-1-21-E11A	R= 20 x D, 4 turns, 3 cycles

Environmental Properties

Property	Conditions	Test Standard	Result / Value
Temperature Range	Installation	-	-30 to +50 °C
	In Service		-40 to +70 °C
	Storage		-40 to +80 °C
Water Penetration	3 meter specimen,1 m water altitude	IEC 60794-1-22-F5B	No leakage in 24 hours
Fire Propagation	Vertical single cable	IEC 60332-1-2	passed
Smoke Density	-	IEC 61034-2	passed
Halogen Acid Gas	Jacket material	IEC 60754-1	passed
Degree of Acidity	Jacket material	IEC 60754-2	passed
2011/65/EC (RoHS)	-	-	compliant
(EU) No 305/2011 (CPR)	-	EN 50575	Fca

Ordering Codes

Order Code	Fiber Count	Tube Count	Tube Diameter (mm) nom.	Cable Diameter (mm) nom.	Cable Weight (kg) nom.
004F-A-D1Q(ZN-GY)2Y(SR)2Y-1D250-1x4-...-BK-Fca-1.5kN	4	1	2.5	9.3	92
008F-A-D1Q(ZN-GY)2Y(SR)2Y-1D250-1x8-...-BK-Fca-1.5kN	8	1	2.5	9.3	92
012F-A-D1Q(ZN-GY)2Y(SR)2Y-1D250-1x12-...-BK-Fca-1.5kN	12	1	2.5	9.3	92
024F-A-D1Q(ZN-GY)2Y(SR)2Y-1D300-1x24-...-BK-Fca-1.5kN	24	1	3.0	9.8	100

* Available fiber types are G652.D, G657.A1, G657.A2, G651.OM2, G651.OM3, G651.OM4

* Sample Code: 024F-A-D1Q(ZN-GY)2Y(SR)2Y-1D300-1x24-...-BK-Fca-1.5kN

Packaging

Drum length/Tolerance	2000 m ± 5%	4000 m ± 5%
Drum Flange diameter	1000 mm	1200 mm
Drum core diameter	500 mm	500 mm
Outside width	650 mm	650 mm