

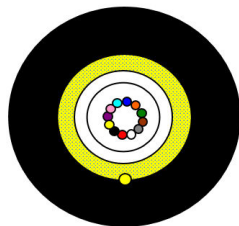


Technical Specification

2-24 x 9/125µ G.657.A1 SM All-dielectric Single-Loose-Tube Indoor/Outdoor LS0H-3 FO Cables

HCS Part Number: SA1-Cxx01-xx7-BB

Revision 05/23 Date: 19 July 2023



2~24 Color coded G.657.A1 singlemode bare fibers (250 microns OD) contained in a single jell-filled loose tube, overall served with water-blocking swellable glass yarn and jacketed with black, UV resistant LS0H compound. suitable for both indoor and limited outdoor installations in ducts.

Cable Construction

Optical fibers	9/125 µm ITU-T G.657.A1 Bend-insensitive Category A1 (MBR: 10mm).
Optical transmission properties	See below
Core diameter	See MFD below.
Clad diameter	125±0.7 µm
Cladding non-circularity	0.7% max.
Core/Cladding concentricity error	0.5 µm max.
Coating/Cladding concentricity error	12 µm max.
Primary coating diameter	242±7 µm
Proof test level	0.69 Gpa
Buffer coating	None.
Number of optical fibers	2~24
Fibers Color code	See below.
Core formation	Color coded bare fibers contained in a single jell-filled loose tube, 2.8 mm OD.
Strength elements	Served swellable glass yarn, providing longitudinal water blocking.
Rip cord	Inserted longitudinally under the jacket.
Overall jacket	LS0H compound, UV-resistant, conforming to EN 50290-2-27.
Jacket thickness	1.5 mm nom.
Overall diameter	7.5±0.3 mm nom.
Color	Black, RAL 9005.
Surface Marking	HCS SA1-C XX 01 DataLight SLT XX x9/125µ G.657.A1 SM IEC 60332-1 & 60332-3-24 INDOOR/OUTDOOR LS0H Dielectric FO CABLE CE CPR Class B2ca-s1a,d1,a1 CE 2011/65/EU (RoHS-2) [Nwwyy] [Meter Mark] METER -LGCE -
Notes	XX shall be replaced by the actual number of fibers. ww=Production week number. yy=Production year

Physical Properties	Value	Test Method
Tensile strength - short term	3000 N max. Max. Fiber strain: 0.6% max.	IEC-60794-1-21 E1
Tensile strength - long term	1000 N max. Max. Fiber strain: 0.2% max.	IEC-60794-1-21 E1
Compressive load (crush resistance)	3000 N/10cm. No broken fiber. IL change reversible. 1500 N/10cm. No broken fiber. No IL change.	IEC-60794-1-21 E3
Impact	20J, Striking surface r=300 mm. No broken fiber. 5J, Striking surface r=12.5 mm. No broken fiber.	IEC-60794-1-21 E4
Torsion	5 cycles. No broken fiber.	IEC-60794-1-21 E7
Kink	No kink in 100 mm loop.	IEC-60794-1-21 E10
Storage & Operation temperature range	-40 to +70C	IEC-60794-1-22 F1
Installation Temperature range	-20 to +60C	-
Bend radius during installation, loaded	150 min.	-
Bend radius - long term, unloaded	75 mm, Temp > -20C.	IEC-60794-1-21 E11
Longitudinal water blocking	1m water, 3m cable, 24 hours, no water leak.	IEC-60794-1-22 F5C
Flame tests	Pass defaults values	IEC 60332-3-24, IEC 60754-1 & IEC 61034.
EU Regulation 305/2011 (CPR) conformance	Class B2ca-s1a,d1,a1. NB 2652	EN 13501
Total Weight	73 kg/km nom.	-

Optical Transmission Properties

Fiber	Fiber Type	Standards & basic properties	Attenuation dB/km			MFD	
			@1310nm Max	@1383nm Max	@1550nm Max	@1310nm µm	@1550nm µm
A1	9/125µm Single Mode Optical Fiber	ITU-T G.657.A1 Bend Insensitive Zero dispersion wavelength: 1300-1322 nm Cable cutoff wavelength: 1260 nm max.	0.36	0.36	0.24	9.0±0.4	10.1±0.5

Fibers Color Code

#	Color	#	Color	#	Color	#	Color	#	Color	#	Color
1	Blue	2	Orange	3	Green	4	Brown	5	Gray	6	White
7	Red	8	Black	9	Yellow	10	Violet	11	Pink	12	Aqua
13	Blue/Black	14	Orange/Black	15	Green/Black	16	Brown/Black	17	Gray/Black	18	White/Black 70 mm
19	Red/Black	20	White/Black 35mm	21	Yellow/Black	22	Violet/Black	23	Pink/Black	24	Aqua/Black

This cable fully conforms to EU Directive 2011/65/EU (RoHS-2)