



HES Cabling Systems

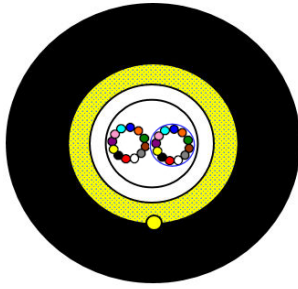
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Technical Specification

24x50/125μ OM4 MM All-dielectric Single-Loose-Tube Indoor/Outdoor LS0H FO Cables

HCS Part Number: S56-02401-xx7-BB

Revision 05/20 Date: 17 December 2020



24 color coded OM4 multimode bare fibers contained in a single air-core loose tube, overall served with water-blocking swellable glass yarn and jacketed with black, UV resistant LS0H compound. The cable conforms to EU Regulation 305/2011 (CPR) Class B2ca-s1a,d1,a1 and it is suitable for both indoor and outdoor installations.

Cable Construction

Optical fiber	50/125μm Multimode OM4 - ISO/IEC 11801 A1a.3 - IEC 60793-2-10 - TIA-492 AAAD TIA-568.3-D-1
Core diameter	50±3.0 μm
Clad diameter	125±2.0 μm
Cladding non-circularity	2% max.
Core/Cladding concentricity error	3.0 μm max.
Primary coating diameter	245±15 μm
Proof test level	100 kpsi min.
Buffer coating	None.
Number of optical fibers	24
Fibers Color code	Below. The fibers are arranged in two groups of 12 fibers, each having the same color code. One group marked with a blue tape.
Core formation	24 color coded bare fibers contained in a single loose tube, arranged in two bundles.
Tube design	Air-core tube made of LS0H FR Polybutylene Terephthalate (PBT). Tube diameter: 3.0 mm nom.
Strength elements	Served swellable glass yarn, providing longitudinal water blocking.
Rip cord	PET rope inserted longitudinally under the jacket.
Overall jacket	UV resistant LS0H compound for indoor and outdoor use.
Jacket thickness	2.0 mm nom.
Overall diameter	8.8±0.8 mm.
Color	Black, RAL 9005.
Surface Marking	HCS S56-02401 DataLight SLT 24x50/125μ OM4 MM IEC 60332-1 INDOOR/OUTDOOR LS0H FO CABLE CE CPR Class B2ca-s1a,d1,a1 CE 2011/65/EU (RoHS-2) [Fwwyy] [Meter Mark] METER --- LGCE ---

Physical Properties	Value	Test Method
Tensile strength - short term	2000 N max. Fiber strain: ≤ 0.33%	IEC-60794-1-21 E1
Tensile strength - long term	700 N max. ΔIL: 0.05dB max.	IEC-60794-1-21 E1
Crush resistance	1500N/100mm max. 15 minutes. ΔIL: 0.05dB max.	IEC-60794-1-21 E3
Impact resistance	10 N·m max. 3 impacts. R=300mm ΔIL: 0.05dB max.	IEC-60794-1-21 E4
Torsion	1m, 100N, max. ±180° 10 cycles. No damage	IEC-60794-1-21 E7
Repeated bending	R=20D, 100N, max. 35 cycles. No damage	IEC-60794-1-21 E6
Storage Temperature range	-40 to +70C	-
Installation Temperature range	-30 to +60C	-
Operating Temperature range	-40 to +70C	-
Bend radius during installation	20D min.	-
Bend radius - long term	10D min.	-
Longitudinal water blocking (outer section)	1m water, 3m cable, 24 hours, no water leak.	IEC-60794-1-22 F5A
Flame test	IEC 60332-1-2 & IEC 60332-1-3	IEC 60332-1
Acid gas	IEC 60754	IEC 60754
Smoke density	IEC 61034	IEC 61034
EU Regulation 305/2011 (CPR) conformance	Class B2ca-s1a,d1,a1. NB 1783	EN 13501
Total Weight	98 kg/km nom.	-

Optical Transmission Properties

Fiber P/N	Multimode Fiber Type	Multimode Fiber Grade & Standard	Attenuation (dB/km)				Min. Bandwidth (MHz·km)		Min. Bandwidth (MHz·km)		Numerical Aperture
			850nm		1300nm		850nm	1300nm	850nm	1300nm	
			Nom	Max	Nom	Max					
56	50/125μm	OM4 - ISO/IEC 11801 TIA-492 AAAD A1a.3 - IEC 60793-2-10 TIA-568.3-D-1	2.6	3.0	0.8	1.0	3500	500	4700	500	0.200±0.015

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

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