



HES Cabling Systems

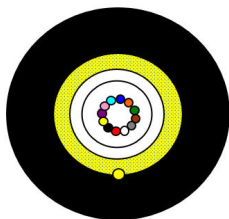
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Technical Specification

2-12x50/125μ OM3 MM All-dielectric Single-Loose-Tube Indoor/Outdoor LS0H FO Cables

HCS Part Number: S54-xxx01-xx7-BA

Revision 04/20 Date: 03 July 2020



2-12 color coded OM3 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

Basic optical fibers	50/125μm multimode fibers conforming to ISO/IEC-11801 OM3 & TIA-568.3-D-1 Laser-Optimized 10GBE.
Optical transmission properties	See below
Core diameter	50 μm nom.
Clad diameter	125 ± 1.0 μm
Primary coating diameter	245 ± 10 μm
Proof test level	100 kpsi min.
Buffer coating	None.
Number of optical fibers	2-12
Fibers Color code	Below.
Core formation	2-12 color coded bare fibers contained in a single loose tube
Tube design	Air-core tube made of LS0H FR Polybutylene Terephthalate (PBT). Tube diameter: 2.30 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	2.1 mm nom.
Overall diameter	8.3±0.8 mm.
Color	Black, RAL 9005.
Surface Marking	HCS S54- xxx 01 DataLight SLT NN x50/125μ OM3 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
Notes	HCS xxx and NN shall be replaced with the actual number of fibers.

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	92 kg/km nom.	-

Optical Transmission Properties

Fiber P/N	Multimode Fiber Type	Multimode Fiber Grade & Standard	Optical Transmission Reports								Numerical Aperture
			Attenuation (dB/km)				Min. Bandwidth (MHz·km)		Min. Bandwidth (MHz·km)		
			850nm		1300nm		850nm	1300nm	850nm	1300nm	
			Nom	Max	Nom	Max	OFL		Laser EMB		
54	50/125μm	OM3 - ISO/IEC 11801 TIA-568.3-D-1 TIA-492 AAAC-B A1a.2 IEC 60793-2-10	2.6	3.0	0.8	1.0	1500	500	2000	500	0.200±0.020

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)