

Technical Specification
Nx9/125µ SM G.652.D SLT CSA SJ SLIM Outdoor FO Cable
Part Number: E94-xxxT3-xx7
Revision 15/23 Date: 16 July 2023



Color coded G.652.D Single mode optical fibers buffered in a single gel-filled loose tube. The tube is wrapped with water blocking glass yarn. A corrugated bonded steel tape is applied to ensure the fibers are protected against rodents damage followed by a black PE jacket rendering the cable suitable for outdoor installations in harsh environments.

Basic fibers

Basic optical fibers	G.652.D - 9/125 µm singlemode conforming to ITU-T G.652.D	
Core diameter	9 µm nom.	
Clad diameter	125 ± 1.0 µm	
Primary coating diameter	245 ± 10 µm	
Fibers attenuation (cabled)	Max. 0.36 dB/km @ 1310nm	Max. 0.22 dB/km @ 1550nm
Mode field diameter (MFD)	9.2±0.4 µm @ 1310nm	10.4 ± 0.5 µm @ 1550nm

Cable Construction

Central strength element	None
Buffer coating	PBT Loose tube filled with Thixotropic gel, natural color
Strength members	Water blocking glass yarn served around the loose tube
Fibers color code up to 12F	Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Pink, Turquoise
Fibers color code for 24F	Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Pink, Turquoise, Blue with black tracer, Orange with black tracer, Green with black tracer, Brown with black tracer, Grey with black tracer, White with black tracer, Red with black tracer, Natural, Yellow with black tracer, Violet with black tracer, Rose with black tracer, Turquoise with black tracer
Rip-cords	Two Polyester cords laid in 180° orientation for easy armor & jacket removal. Red, DTX6000
Armor	150 micron corrugated steel tape laid longitudinally, bonded to the outer jacket
Outer jacket	UV resistant PE
Outer jacket thickness	1.0 mm nom., 0.8 mm min.
Outer jacket color	Black, RAL 9005
Surface marking	HCS E94-xxxT3 SLT NNx9/125µ ITU-T G.652.D SM FO CABLE CSA SJ CE 2011/65/EU (RoHS-2) [Month, Year] [Batch No.] [Meter Mark] METER
Surface marking - example	HCS E94-012T3 SLT 12x9/125µ ITU-T G.652.D SM FO CABLE CSA SJ CE 2011/65/EU (RoHS-2) 12/2021 GB1234 0001 METER

Optional Constructions

P/N	Fibers per Tube	Tube ID/OD mm	Cable nom. OD mm	Weight kg/km
E94-004T3	4	1.8/2.6	7.0	61
E94-006T3	6	1.8/2.6	7.0	62
E94-012T3	12	1.8/2.6	7.0	63
E94-024T3	24	2.0/2.8	7.1	68

Performance

Test	Value	Specification	Test method
Tensile strength -Short-term load	1500N (for installation)	0.1dB max. IL increase@1550 nm, no sheath damage	IEC 60794-1-21-E1
Crush resistance	Load: 2200 N /100mm ,Time: 1 minute, Length: 100 mm	No fiber break ,No sheath damage	IEC 60794-1-21-E3
Impact resistance	Impact height: 1m ,Impact weight:450g ,Points of impact: 3 ,Times of per point: 1	No fiber break ,No sheath damage	IEC 60794-1-21-E4
Repeated bending	Bending radius.: 20 × D, Load: 50N ,Flexing rate: 2sec/cycle ,No. of cycle: 25	Loss change after test≤ 0.05dB@1550 nm, No sheath damage	IEC 60794-1-21-E6
Water penetration	Height of water: 1m, Sample length: 3 m ,Time: 24 hr	No drip through the cable core assembly	IEC 60794-1-22-F5
Twist	Length: 1 m, Load: 50N, Twist rate: ≤60sec/cycle, Twist angle: ±90°, No. of cycle: 5	No fiber break, No sheath damage	IEC 60794-1-21-E7
Temperature Cycling	Temperature step: +20oC→-30oC→+70oC→+20oC, Number of cycle: 2 turns, Time per each step: 12 hrs	Loss change after test≤ 0.15dB/km@1550 nm, No sheath damage	IEC 60794-1-22-F1

Physical Properties

Storage temperature range	-40 to +80C
Installation temperature range	-15 to +60C
Operating temperature range	-40 to +80C
Bend radius during installation	20xD min. per IEC 60794-1-2 E11
Bend radius during operation	10xD min. per IEC 60794-1-2 E11

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