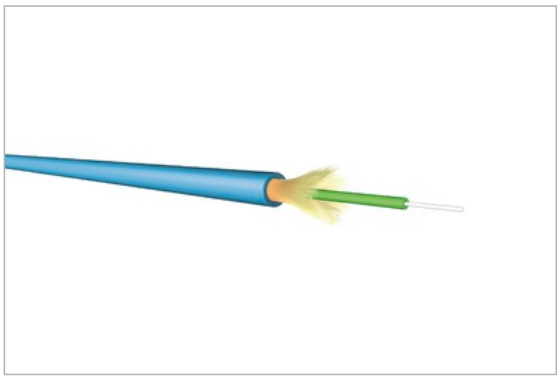
FO Simplex cord 50/125µ OM3 LSOH 2,0mm

trans data elektronik GmbH

Description

The standard fiber optic cable types of tde specifically for the assembling of patch and adapter cables, pigtails and trunk cables has been developed. Also the use in FTTD applications inside buildings is possible. The breakout cables have up to 24 individual elements with a 2mm diameter. The overall cable diameter is very slim.

These cables are characterized by very good termination properties. The cable jacket and the secondary coating are easy removable.



Technical Data

Cable Data

Fiber Amount	1
Fiber Type	MM-OM3, 50/125µ, Corning ClearCurve®
Secondary Coating	900µ, easy strippable
Strength Members	Aramid yarns
Outer Jacket	LSOH (Halogen free, low smoke, flame retardant thermoplastic compound)
Jacket Colour	Aqua
Outer Diameter	2.0 (± 0.1mm)
Standard printing	“t d e – IVH01G50-OM3-2.0” and sequential meter marking + Lot number
Apllications	Patchcords/ Pigtails

Mechanical/ Thermal Characteristics

Weight	6 kg/km
Operational tensile load	105 N
Bending radius	10 x outer diamter
Operating temperature	-5°C to + 60°C
Fire resistance	Pass (EN 50266, IEC 60332-3)
Halogen content	Free (EN 50267, IEC 60754)
Smoke density	Low (EN 50268, IEC 61034-1/2)

Vers. 09.04.2020

tde – trans data elektronik GmbH
Network components,
Cable technology and Fibre optics

ISO 9001, TL 9000
and ISO 14001 certified

Headquarter:
Lingener Str.2
D-49626 Bippen/Ohrte
Tel.: +49 (0) 5435 9511 0
Fax.: +49 (0) 5435 9511 32
E-Mail: info@tde.de

Sales office:
Im Defdahl 233
D-44141 Dortmund
Tel.: +49 (0) 231 914 36 99
Fax.: +49 (0) 231 914 31 29
www.tde.de

FO Simplex cord 50/125µ OM3 LSOH 2,0mm

trans data elektronik GmbH

Special features

Characteristics	Fiber and aramid yarn free movable in the compound

FO Fiber

Type	Corning ClearCurve® 50/125µ OM3 multimode fiber
Optimized Data Rate over Distance	40/100 Gb/s über 140 m* 10 Gb/s over 300 m 1 Gb/s over 1000 m
Standard Compliance	ISO/IEC 11801: type OM3 fiber IEC 60793-2-10: type A1a.2 fiber TIA/EIA: 492AAAC-B ITU: ITU G651.1
*	Distances specified in the 40G/100G per IEEE 802.3ba standard are 150m on OM4 and 100m on OM3; Corning fibers are manufactured to tighter dispersion specifications and thereby support the extended distances shown in the table (assuming cable attenuation ≤3.0 dB/km and same 1.0 dB of connector loss for OM3 that the standard requires for OM4).

Optical Specifications

Bandwidth	High Performance EMB* (MHz.km): 2000 at 850 nm only Legacy Performance EMB* (MHz.km): 1500 at 850 nm / 500 at 1300 nm
Attenuation	At 850 nm max. ≤ 2.3 dB/km At 1300 nm max. ≤ 0.6 dB/km
Macrobend Loss	Mandrel Radius (mm): 37.5 / 15 / 7.5 Number of Turns: 100 / 2 / 2 Induced Attenuation (dB) at 850 nm: ≤ 0.05 / ≤ 0.1 / ≤ 0.2 Induced Attenuation (dB) at 1300 nm: ≤ 0.15 / ≤ 0.3 / ≤ 0.5
Numerical Aperture	0.200 ± 0.015
*	Ensured via miniEMBc, per TIA/EIA 455-220A and IEC 60793-1-49, for high performance laser-based systems (up to 10 Gb/s).
**	OFL BW, per TIA/EIA 455-204 and IEC 60793-1-41, for legacy and LED-based systems (typically up to 100 Mb/s).

Dimensional Specifications

Core Diameter	50.0 ± 2.5 µm
Cladding Diameter	125.0 ± 1.0 µm
Core-Clad Concentricity	≤ 1.5 µm
Cladding Non-Circularity	≤ 1.0%
Core Non-Circularity	≤ 5.0%
Coating Diameter	242 ± 5 µm

Vers. 09.04.2020

tde – trans data elektronik GmbH
Network components,
Cable technology and Fibre optics

ISO 9001, TL 9000
and ISO 14001 certified

Headquarter:
Lingener Str.2
D-49626 Bippen/Ohrte
Tel.: +49 (0) 5435 9511 0
Fax.: +49 (0) 5435 9511 32
E-Mail: info@tde.de

Sales office:
Im Defdahl 233
D-44141 Dortmund
Tel.: +49 (0) 231 914 36 99
Fax.: +49 (0) 231 914 31 29
www.tde.de

FO Simplex cord 50/125µ OM3 LSOH 2,0mm

trans data elektronik GmbH

Coating-Cladding Concentricity	< 12 µm

Environmental

Enviromental Test	Test Condition	Induced Attenuation 850 nm & 1300 nm (dB/km)
Temperature Dependence	-60°C to +85°C	≤ 0.10
Temperature Humidity Cycling	-10°C to +85°C and 4% to 98% RH	≤ 0.10
Water Immersion	23°C ± 2°C	≤ 0.20
Heat Aging	85°C ± 2°C	≤ 0.20
Damp Heat	85°C at 85% RH	≤ 0.20
Operating Temperature Range	-60°C to +85°C	

Mechanical Specifications

Proof Test	The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.7 GN/m²).
Length	Fiber lengths available up to 17.6 km/spool.

Performance Characterizations

Refractive Index Difference	1%
Effective Group Index of Refraction	850 nm: 1.480 1300 nm: 1.479
Fatigue Resistance Parameter (nd)	20
Coating Strip Force	Dry: 0.6 lbs (2.7N) Wet: 14 days in 23°C water soak: 0.6 lbs (2.7N)
Cromatic Dispersion	Zero Dispersion Wavelength (λ0): 1295 nm ≤λ0 ≤ 1315 nm Zero Dispersion Slope (S0): ≤ 0.101 ps/(nm²*km)

Art.-No.	Description
L-IVH01E09-2.0	FO Simplex cord 9/125µ G.652.D LSOH 2,0mm
L-IVH01G50-2.0	FO Simplexcord 50/125µ OM2 LSOH 2,0mm
L-IVH01G50-OM3-2.0	FO Simplex cord 50/125µ OM3 LSOH 2,0mm
L-IVH01G50-OM4-2.0	FO Simplex cord 50/125µ OM4 LSOH 2,0mm
L-IVH01G62-2.0	FO Simplex cord 62,5/125µ OM1 LSOH 2,0mm

Vers. 09.04.2020

tde – trans data elektronik GmbH
Network components,
Cable technology and Fibre optics

ISO 9001, TL 9000
and ISO 14001 certified

Headquarter:
Lingener Str.2
D-49626 Bippen/Ohrte
Tel.: +49 (0) 5435 9511 0
Fax.: +49 (0) 5435 9511 32
E-Mail: info@tde.de

Sales office:
Im Defdahl 233
D-44141 Dortmund
Tel.: +49 (0) 231 914 36 99
Fax.: +49 (0) 231 914 31 29
www.tde.de