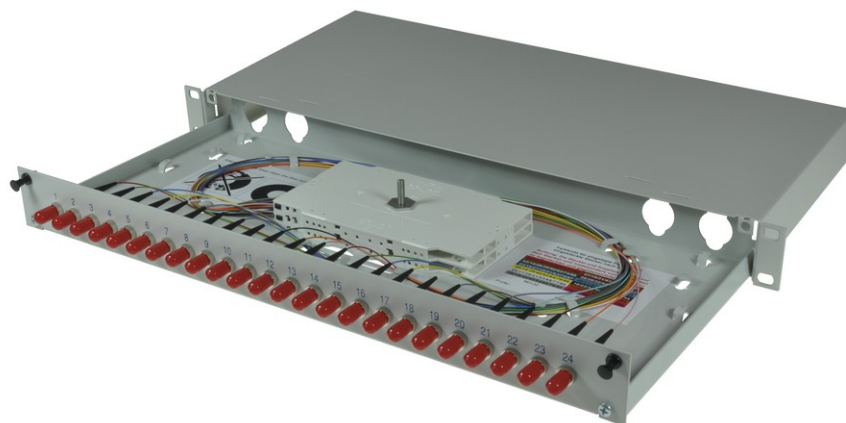


tBL® - FO Splice box 19" 1U MM 24x ST OM3, splice ready prepared



tBL® - tde Basic Link (FO Enclosures)

The FO enclosures of the tBL® - tde Basic Link series are optimized products with a high functionality and an easy handling at the installation. The program includes splice and breakout boxes for 19 inch, wall and DIN rail mounting. These products are characterized by a high port density and an optimal fiber management, so that the permissible bending radii can't be undercut. Moreover, there are no sharp corners or edges, to avoid damage to the pigtails and buffer tubes. The front plates are removable. There are versions for E2000, FC, PC, LC, MPO / MTP, MTRJ, MU, SC, and ST. These products can be obtained with or without equipment. In addition, there are also special versions with IP66 for outdoor and offshore applications.

19" Splice box with extendable drawer and cover. For up to 24 x FO adapters, 1U 210mm deep. The splice box is optional equipped with colored fiber pigtails and splice ready prepared.



tde® trans data elektronik GmbH

Headquarter address:

Lingener Str. 2
D-49626 Bippen/Ohrte
Tel.: +49 5435 9511 0
Fax.: +49 5435 9511 32

Sales office address:

Prinz-Friedrich-Karl-Str. 46
D-44135 Dortmund
Tel.: +49 231 8805 61 13
Fax.: +49 231 8805 61 15

info@tde.de | www.tde.de

tBL® - FO Splice box 19" 1U MM 24x ST OM3, splice ready prepared

Technical Data

Pre-mounted	24 ST adapters MM 24 ST Fiber pigtails 50/125μ OM3 2.0 meters 12 x Colors, splice ready prepared 24 Crimp Splice protectors 2 Splice cassettes 2 Splice holder 1 Splice cover 1 Glands M20 for cable entry 1 set cage nuts and screws (M5)
Alternative pre-mounted	TBL-F24-xxST50-3yz (see below)
xx	(01 - 24) quantity of adapters
y	(S)plice ready prepared
z	With(O)ut Crimp Splice protectors

FO Splice Boxes

Housing	Sheet steel, extendable drawer, front panel removable
Color	RAL 7035
Cable entry	On the back: Each over 2x metric cable glands (left and right)
Dimensions	19" 1U 210mm depth

Front panel color	RAL 7035 light grey matt
Labeling	1 - 24 silk screen
Configuration	Attachment up to 24x ST Adapter

FO Adapters

Type	ST Simplex
Application	Singlemode OS2 PC, Multimode OM3/OM4
Design	--
Connector style	ST Simplex
Material	Metal
Sleeve	Zirconia Straight Split
Shutter	--
Manufacturer	tde

FO Pigtails Standard

FO Connectors

Connector Type	ST
Housing	Metal
Ferrule	Zirconia Straight Split
Ferrule Hole	126 μ

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Mating Cycles	1.000
Operating Temperature	-40°C up to +75°C
Strain Relief to	150 N
Manufacturer	tde

Optical performance

Fiber	Type	Wavelength	Insertion loss typ.	Insertion loss max.	Return loss min.
50/125μ OM3	ST	850 nm	≤ 0.25 dB	0.45 dB	30 dB

FO Cables

Tight Buffer	Low smoke (IEC 61034 and EN 50268) and free of halogens (LSOH)
	Non corrosive after IEC 60754-2 and EN 50267
	Flame resistant after IEC 60332-3C and EN 50266-2-4
	Completely dry design
	Free from metal, no grounding problems and potential differences
	Tight Buffer for simple and direct connector mounting

Characteristics

Fiber Count	1 (Tight Buffer)
Core-Ø	0.9 mm
Coreweight	1 kg/km
Min. Bending radius - Installation	30 mm
Min. Bending radius - Operation	30 mm
Removal	1500 mm
Fire load	0.15 MJ/m
Temperature range - Installation	-5 to +50°C
Temperature range - Operation	-20 to +60°C
Temperature range - Transport / Lagerung	-25 to +70°C

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).

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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 μ m
Cladding Diameter	125.0 ± 1.0 μ m
Core-Clad Concentricity	≤ 1.5 μ m
Cladding Non-Circularity	$\leq 1.0\%$
Core Non-Circularity	$\leq 5.0\%$
Coating Diameter	242 ± 5 μ m
Coating-Cladding Concentricity	< 12 μ m

Environmental

Environmental 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 \pm 2°C	≤ 0.20
Heat Aging	85°C \pm 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/m ²).
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

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Coating Strip Force	Dry: 0.6 lbs (2.7N) Wet: 14 days in 23°C water soak: 0.6 lbs (2.7N)
Chromatic Dispersion	Zero Dispersion Wavelength (λ_0): 1295 nm $\leq \lambda_0 \leq$ 1315 nm Zero Dispersion Slope (S0): ≤ 0.101 ps/(nm ² *km)

FO Splice Accessories

Type	Splice cassette
Dimensions	155 x 92 x 8 mm
Material	Bright ABS, similar RAL 1013

FO Splice Accessories

Type	FO Splice holder for 12 x Crimp splice protectors
Dimensions	40 x 26 x 6 mm
Material	Bright ABS, similar RAL 1013

FO Splice Accessories

Type	Crimp splice protector
Dimensions	31 x 3 x 1 mm

FO Splice Accessories

Type	Cassette cover long
Dimensions	155 x 92 x 2 mm
Material	Bright ABS, similar RAL 1013

Type	Cable tie
Dimensions	75 x 2.5 mm

FO Splice Accessories

Type	Cable gland M20
Color	light grey

Type	Locknut for cable gland M20
Color	light grey

Type	Mounting set M5
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Set of 4 (cage nuts and screws)

Product variants & accessories

Art.-No.	Description
TBL-F24-24ST50-3S	tBL [®] - FO Splice box 19" 1U MM 24x ST OM3, splice ready prepared
TBL-F24-24ST50S	tBL [®] - FO Splice box 19" 1U MM 24x ST OM2, splice ready prepared
TBL-F24-24ST62S	tBL [®] - FO Splice box 19" 1U MM 24x ST OM1, splice ready prepared
TBL-F24-24ST9S	tBL [®] - FO Splice box 19" 1U MM 24x ST OS2, splice ready prepared