

tBL® - FO Splice box 19" 1U MM 24x LC Duplex OM2, 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 LC Duplex OM2, splice ready prepared

# **Technical Data**

Pre-mounted	24 LC duplex adapters MM  48 LC Fiber pigtails 50/125µ OM2 2.0 meters 12 x Colors, splice ready prepared  48 Crimp Splice protectors  4 Splice cassettes  4 Splice holder  1 Splice cover  1 Glands M20 for cable entry  1 set cage nuts and screws (M5)
Alternative pre-mounted	TBL-F24-xxLCD50yz (see below)
XX	(01 - 24) quantity of adapters
у	(S)plice ready prepared
Z	With(0)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 SC Simplex, LC Duplex, E2000 Simplex or MPO adapter

## **FO** Adapters

Туре	LC Duplex	
Application	Multimode OM2	
Design	One-Piece with Flange	
Connector style	SC Simplex	
Color	Beige	
Material	Plastic	
Sleeve	Zirkonia Staight Split	
Shutter	_	
Manufacturer	tde	

## **FO Pigtails Standard**

#### **FO Connectors**

Connector Type	LC Unibody Simplex
Housing	Plastic, Beige
Ferrule	Zirkonia Staight Split, Spring-loaded Axially

Vers. 19.06.2019



# tBL® - FO Splice box 19" 1U MM 24x LC Duplex OM2, splice ready prepared

Ferrule Hole	126 µ
Mating Cycles	1.000
Operating Temperature	-40°C up to +75°C
Strain Relief to	100 N
Manufacturer	tde

### **Optical performance**

Fiber	Туре	Wavelength	Insertion loss typ.	Insertion loss max.	Return loss min.
50/125µ OM2	LC	850 nm	$\leq 0.25 \text{ dB}$	0.45 dB	30 dB
62.5/125µ OM1	LC	850 nm	$\leq 0.25 \text{ dB}$	0.45 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 resistent after IEC 60332-3C and EN 50266-2-4
	Completly 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

Туре	Corning 50/125µ OM2 multimode fiber
Manufacturer	Corning

## **Optical Specifications**

Bandwidth	500 at 850 nm / 500 at 1300 nm



# tBL® - FO Splice box 19" 1U MM 24x LC Duplex OM2, splice ready prepared

	At 850 nm max. $\leq$ 2.5 dB/km At 1300 nm max. $\leq$ 0.8 dB/km
Numerical Aperture	$0.200 \pm 0.015$

#### **Dimensional Specifications**

Core Diameter	$50.0 \pm 3.0 \; \mu \text{m}$
Cladding Diameter	125.0 ± 2.0 μm
Core-Clad Concentricity	≤ 3.0 µm
Cladding Non-Circularity	< 2.0%
Core Non-Circularity	≤ 5.0%
Coating Diameter	245 ± 5 μm
Coating-Cladding Concentricity	< 12 μm

#### **Environmental Specifications**

Enviromental Test	Test Condition	Induced Attenuation 850 nm and 1300 nm (dB/km)
Temperature Dependence	-60°C to +85°C	≤ 0.20
Temperature Humidity Cycling	-10°C to +85°C and 4% to 98% 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 $\geq 100$ kpsi (0.7 GN/m <sup>2</sup> ).
Length	Fiber lengths available up to 8.8 km/spool.

#### **Performance Characterizations**

Refractive Index Difference	2%
Effective Group Index of Refraction	850 nm: 1.490 1300 nm: 1.486
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 ( $\lambda 0$ ): 1300 nm $\leq \lambda 0 \leq$ 1320 nm Zero Dispersion Slope (S0): $\leq$ 0.101 ps/(nm <sup>2*</sup> km)

## **FO Splice Accessories**

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

tBL® - FO Splice box 19" 1U MM 24x LC Duplex OM2, splice ready prepared

## **FO Splice Accessories**

Туре	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**

Туре	Crimp splice protector
Dimensions	31 x 3 x 1 mm

## **FO Splice Accessories**

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

Туре	Cable tie
Dimensions	75 x 2.5 mm

Type	Locknut for cable gland M20
Color	light grey

Туре	Cable gland M20
Color	light grey

# **FO Splice Accessories**

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

# **Product variants & accessories**

ArtNo.	Description
TBL-F24-24LCAD9AS	tBL® - FO Splice box 19" 1U SM 24x LC APC Duplex OS2, splice ready prepared
TBL-F24-24LCD50-3S	tBL® - FO Splice box 19" 1U MM 24x LC Duplex OM3, splice ready prepared
TBL-F24-24LCD50-4S	tBL® - FO Splice box 19" 1U MM 24x LC Duplex OM4, splice ready prepared
TBL-F24-24LCD50S	tBL® - FO Splice box 19" 1U MM 24x LC Duplex OM2, splice ready prepared
TBL-F24-24LCD9S	tBL® - FO Splice box 19" 1U SM 24x LC Duplex OS2, splice ready prepared