



tBL® - DIN rail splice housing MM 6x LC Duplex 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.



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# **Technical Data**

Pre-mounted	6 LC duplex adapters MM  12 LC Fiber pigtails 50/125µ OM3 2.0 meters tde attenuation class B, 12 x Colors, splice ready prepared 12 Crimp Splice protectors 1 Splice cassette 1 Splice holder 1 Cabel entry vertical 1 Mounting clip (for mounting on rail housing) 1 Gland M20 for cable entry
Alternative pre-mounted	TBL-H06-xxLCD50-3Pyz (see below)
xx	(01 - 06) quantity of adapters
у	(S)plice ready prepared
Z	With(0)ut Crimp Splice protectors

# FO DIN rail splice module

Housing	Alu-sheet, 1 mm
Dimensions	141.4 x 141 x 42.8 mm
Colour	powdered in RAL 9005 (black)

## FO DIN rail splice module

Front panel	Alu-sheet
	incl. labeling strip
Configuration	Attachment up to 6x LC Duplex, 6x SC Simplex or 6x E2000 Simplex adapters

## **FO** Adapters

Туре	LC Duplex	
Application	Multimode OM3	
Design	One-Piece with Flange	
Connector style	SC Simplex	
Color	Aqua	
Material	Plastic	
Sleeve	Zirkonia Staight Split	
Shutter		
Manufacturer	tde	

## **FO Pigtails Premium**

#### **FO Connectors**

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



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Ferrule Hole	126μ
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 OM3	LC	850 nm	≤ 0.20 dB	0.35 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 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 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	



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Distances specified in the 40G/100G per IEEE 802.3ba standard are 150m on 0M4 and 100m on 0M3; Corning fibers are manufactured to tighter dispersion specifications and thereby support the extended
distances shown in the table (assuming cable attenuation $\leq$ 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: $\le 0.05 / \le 0.1 / \le 0.2$ Induced Attenuation (dB) at $1300$ nm: $\le 0.15 / \le 0.3 / \le 0.5$
Numerical Aperture	$0.200 \pm 0.015$
*	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
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.



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#### **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 ( $\lambda 0$ ): 1295 nm $\leq \lambda 0 \leq$ 1315 nm Zero Dispersion Slope (S0): $\leq$ 0.101 ps/(nm <sup>2*</sup> km)

## **FO Splice Accessories**

Туре	splice cassette for DIN rail splice housing
Material	sheet steel
Colour	powdered in RAL 9005 (black)
Configuration	uo to 2x 12 splices

## **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

Туре	Cable tie
Dimensions	75 x 2.5 mm

Туре	FO Blind stopper
Application	For covering of unused adapter slots

# **FO Splice Accessories**

Туре	Cable gland M20
Color	light grey

Туре	Locknut for cable gland M20	
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## tBL® - DIN rail splice housing MM 6x LC Duplex OM3, splice ready prepared

Color light grey	
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## FO DIN rail splice module

Colo	ur	Alu-zinc
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## FO DIN rail splice module

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## FO DIN rail splice module

Colour	Alu-zinc
Opening	for 1x M20 (PG13.5)

## FO DIN rail splice module

Housing	Alu-sheet, 1 mm
Colour	powdered in RAL 7035 (grey)
Cable entry	over metric gland
Attachment	mounting clip

# **Product variants & accessories**

ArtNo.	Description
TBL-H06-06LCAD9APS	tBL® - DIN rail splice housing SM 6x LC APC Duplex OS2, splice ready prepared
TBL-H06-06LCD50-3PS	tBL® - DIN rail splice housing MM 6x LC Duplex OM3, splice ready prepared
TBL-H06-06LCD50-4PS	tBL® - DIN rail splice housing MM 6x LC Duplex OM4, splice ready prepared
TBL-H06-06LCD9PS	tBL® - DIN rail splice housing SM 6x LC Duplex OS2, splice ready prepared