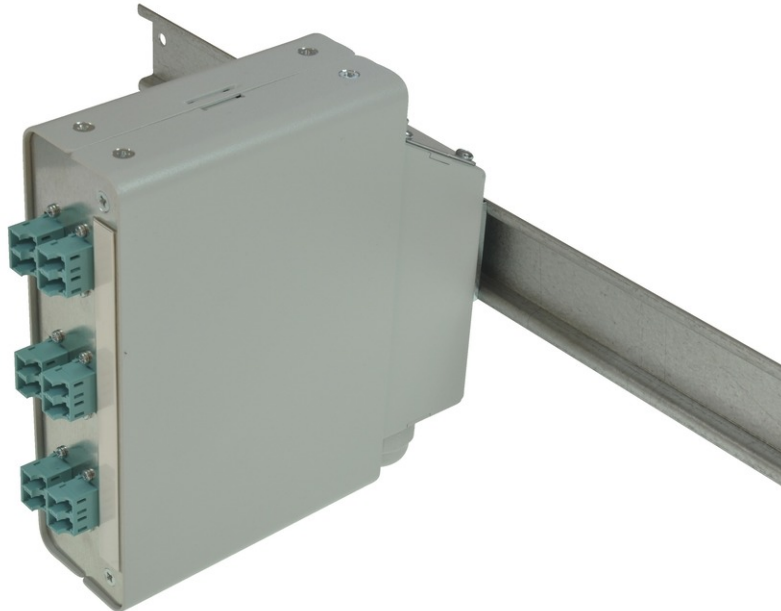


tBL<sup>®</sup> - DIN rail splice housing SM 3x LC Duplex OS2, splice ready prepared



## tBL<sup>®</sup> - tde Basic Link (FO Enclosures)

The FO enclosures of the tBL<sup>®</sup> - 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	3 LC duplex adapters SM 6 LC Fiber pigtails 9/125 $\mu$ OS2 2.0 meters 12 x Colors, splice ready prepared 6 Crimp Splice protectors 1 Splice cassette 1 Splice holder 1 Cable entry vertical 1 Mounting clip (for mounting on rail housing) 1 Gland M20 for cable entry
Alternative pre-mounted	TBL-H06-xxLCD9yz (see below)
xx	(01 - 06) quantity of adapters
y	(S)plice ready prepared
z	With(O)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

Type	LC Duplex (translucent dust covers)
Application	Singlemode OS2 PC
Design	One-Piece with Flange
Connector style	SC Simplex
Color	Blue
Material	Plastic
Sleeve	Zirconia Straight Split
Shutter	-
Manufacturer	tde

## FO Pigtails Standard

### FO Connectors

Connector Type	LC PC Unibody Simplex
Housing	Plastic, Blue
Ferrule	Zirconia Straight Split, Spring-loaded Axially

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Ferrule Hole	125.5 $\mu$
Ferrule Concentricity	$\leq 0.6 \mu$
Mating Cycles	500
Operating temperature	-40°C up to +75°C
Strain Relief to	100 N
Manufacturer	tde

### Optical performance

Fiber	Type	Wavelength	Insertion loss typ.	Insertion loss max.	Return loss min.
9/125 $\mu$	LC	1550 nm	$\leq 0.20$ dB	0.45 dB	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 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- $\emptyset$	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 Ultra SMF-28 <sup>®</sup> 09/125 $\mu$ OS2 singlemode fiber
Maximum Attenuation	At 1310 nm max. 0.32 dB/km At 1383 nm max. 0.32 dB/km At 1490 nm max. 0.21 dB/km At 1550 nm max. 0.18 dB/km At 1625 nm max. 0.20 dB/km
Attenuation vs. Wavelength	Range: 1285 - 1330 nm; Ref. $\lambda$ : 1310 nm; Max. Difference: 0.03 dB/km Range: 1525 - 1575 nm; Ref. $\lambda$ : 1550 nm; Max. Difference: 0.02 dB/km

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Macrobend Loss	Mandrel Radius: 10mm; Number of Turns: 1; Wavelength: 1550nm; Induced Attenuation: ≤ 0.50 dB Mandrel Radius: 10mm; Number of Turns: 1; Wavelength: 1625nm; Induced Attenuation: ≤ 1.5 dB Mandrel Radius: 15mm; Number of Turns: 10; Wavelength: 1550nm; Induced Attenuation: ≤ 0.05 dB Mandrel Radius: 15mm; Number of Turns: 10; Wavelength: 1625nm; Induced Attenuation: ≤ 0.30 dB Mandrel Radius: 25mm; Number of Turns: 100; Wavelength: 1310nm, 1550nm, 1625nm; Induced Attenuation: ≤ 0.01 dB
Point Discontinuity	Wavelength: 1310 nm; Point Discontinuity: ≤ 0.05 dB Wavelength: 1550 nm; Point Discontinuity: ≤ 0.05 dB
Cable Cutoff Wavelength ( $\lambda_{ccf}$ )	$\lambda_{ccf} \leq 1260$ nm
Mode-Field Diameter	At 1310 nm = $9.2 \pm 0.4$ $\mu$ m At 1550 nm = $10.4 \pm 0.5$ $\mu$ m
Dispersion	At 1550 nm = ≤ 18.0 [ps/(nm*km)] At 1625 nm = ≤ 22.0 [ps/(nm*km)]
	Zero Dispersion Wavelength ( $\lambda_0$ ): 1304 nm ≤ $\lambda_0$ ≤ 1324 nm Zero Dispersion Slope ( $S_0$ ): ≤ 0.092 ps/(nm <sup>2</sup> *km)
Polarization Mode Dispersion (PMD)	PMD Link Design Value = ≤ 0.04 ps/√km Maximum Individual Fiber = ≤ 0.1 ps/√km

### Dimensional Specifications

Fiber Curl	≥ 4.0 m radius of curvature
Cladding Diameter	125.0 ± 0.7 $\mu$ m
Core-Clad Concentricity	≤ 0.5 $\mu$ m
Cladding Non-Circularity	≤ 0.7%
Coating Diameter	242 ± 5 $\mu$ m
Coating-Cladding Concentricity	< 12 $\mu$ m

### Environmental Specifications

Environmental Test	Test Condition	Induced Attenuation 1310 nm, 1550 nm & 1625 nm
Temperature Dependence	-60°C to +85°C	≤ 0.05
Temperature Humidity Cycling	-10°C to +85°C up to 98% RH	≤ 0.05
Water Immersion	23°C ± 2°C	≤ 0.05
Heat Aging	85°C ± 2°C	≤ 0.05
Operating Temperature Range	-60°C to +85°C	

### Mechanical Specifications

Proof Test	The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.69 GPa).
Length	Fiber lengths available up to 63.0 km/spool.

### Performance Characterizations

Core Diameter	8.2 $\mu$ m
Numerical Aperture	0.14
Effective Group Index of Refraction	1310 nm: 1.4676 1550 nm: 1.4682

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Fatigue Resistance Parameter (nd)	20
Coating Strip Force	Dry: 0.6 lbs (3N) Wet: 14 days room temperature: 0.6 lbs (3N)
Rayleigh Backscatter Coefficient (for 1 ns Pulse Width)	1310 nm: -77 dB 1550 nm: -82 dB

### FO Splice Accessories

Type	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

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

Type	Cable tie
Dimensions	75 x 2.5 mm

Type	Locknut for cable gland M20
Color	light grey

Type	Cable gland M20
Color	light grey

### FO Splice Accessories

Type	FO Blind stopper
Application	For covering of unused adapter slots

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## FO DIN rail splice module

Colour	Alu-zinc
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## FO DIN rail splice module

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

## FO DIN rail splice module

Colour	zincd
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## Product variants & accessories

Art.-No.	Description
TBL-H06-03LCAD9AS	tBL <sup>®</sup> - DIN rail splice housing SM 3x LC APC Duplex OS2, splice ready prepared
TBL-H06-03LCD50-3S	tBL <sup>®</sup> - DIN rail splice housing MM 3x LC Duplex OM3, splice ready prepared
TBL-H06-03LCD50-4S	tBL <sup>®</sup> - DIN rail splice housing MM 3x LC Duplex OM4, splice ready prepared
TBL-H06-03LCD50S	tBL <sup>®</sup> - DIN rail splice housing MM 3x LC Duplex OM2, splice ready prepared
TBL-H06-03LCD9S	tBL <sup>®</sup> - DIN rail splice housing SM 3x LC Duplex OS2, splice ready prepared