

tBL® - DIN rail splice housing SM 6x SC APC Duplex OS2, 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 SC APC duplex adapters SM 12 SC APC Fiber pigtails 9/125µ OS2 2.0 meters 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-xxSCAD9Ayz (see below)
xx	(01 - 06) quantity of adapters
у	(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 SC Duplex, 6x LC Quad (6x LCD), 6x ST Duplex adapters

FO Adapters

Туре	SC Duplex	
Application	Singlemode OS2 APC	
Design	One-Piece with flange	
Connector style	SC Duplex	
Color	Green	
Material	Plastic	
Sleeve	Zirconia Straight Split	
Shutter		
Manufacturer	tde	

FO Pigtails Standard

FO Connectors

Connector Type	SC APC Simplex
Housing	Plastic, Green
Ferrule	Zirconia Straight Split, Spring-loaded Axially

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Ferrule Hole	125.5 μ
Ferrule Concentricity	≤ 0.6 µ
Mating Cycles	500
Operating Temperature	-40°C up to +75°C
Strain Relief to	150 N
Manufacturer	tde
Simplex/Duplex Clip	Separately on request

Optical performance

Fiber	Туре	Wavelength	Insertion loss typ.	Insertion loss max.	Return loss min.
9/125μ	SC APC	1550 nm	< 0.20 dB	0.45 dB	70 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 Ultra SMF-28® 09/125µ 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 mm; Ref. λ : 1310 nm; Max. Difference: 0.03 dB/km Range: 1525 - 1575 mm; Ref. λ : 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: \leq 0.05 dB Wavelength: 1550 nm; Point Discontinuity: \leq 0.05 dB	
Cable Cutoff Wavelength (λccf)	λccf ≤ 1260 nm	
Mode-Field Diameter	At $1310 \text{ nm} = 9.2 \pm 0.4 \mu\text{m}$ At $1550 \text{ nm} = 10.4 \pm 0.5 \mu\text{m}$	
Dispersion	At 1550 nm = \leq 18.0 [ps/(nm*km)] At 1625 nm = \leq 22.0 [ps/(nm*km)]	
	Zero Dispersion Wavelength (λ_0): 1304 nm $\leq \lambda_0 \leq$ 1324 nm Zero Dispersion Slope (S_0): \leq 0.092 ps/(nm² *km)	
Polarization Mode Dispersion (PMD)	PMD Link Design Value = \leq 0.04 ps/ \sqrt{km} Maximum Individual Fiber = \leq 0.1 ps/ \sqrt{km}	

Dimensional Specifications

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

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 µm
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

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

FO Splice Accessories

Туре	Cable gland M20
Color	light grey

Туре	Locknut for cable gland M20
Color	light grey

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

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-H06-06SCAD9AS	tBL® - DIN rail splice housing SM 6x SC APC Duplex OS2, splice ready prepared
TBL-H06-06SCD50-3S	tBL® - DIN rail splice housing MM 6x SC Duplex OM3, splice ready prepared
TBL-H06-06SCD50-4S	tBL® - DIN rail splice housing MM 6x SC Duplex OM4, splice ready prepared
TBL-H06-06SCD50S	tBL® - DIN rail splice housing MM 6x SC Duplex OM2, splice ready prepared
TBL-H06-06SCD62S	tBL® - DIN rail splice housing MM 6x SC Duplex OM1, splice ready prepared
TBL-H06-06SCD9S	tBL® - DIN rail splice housing SM 6x SC Duplex OS2, splice ready prepared