optotec ODP

FTTH - Building Cabling System

Discrete Connectivity Solutions for Multi-Dwelling Units

ODP is a range of passive fibre management and termination devices used in conjunction with STL's 12 and 24 fibre vertical and horizontal multi-fiber retractable fibre cables in residential indoor environments.
The installation of these products can take place both within new and existing building multi-service infrastructure (conduits, ducts, etc.,) or within new or existing surface mounted raceways.

The ODP solution is designed to maximise the use of existing pathways to reduce fibre installation costs whilst guaranteeing quality and reliability of the fibre connection.

Connectivity between the ODP devices is achieved through the use of 5mm protective tubing, suitable to install multiple fibres between devices, and a 3mm protective tube for individual fibre unit installation for premises connectivity.

TECHNICAL FEATURES

- Guaranteed minimum radius of curvature of the optical fibers – greater performance reliability
- Full front accessibility - facilitates installation operations
- Re-accessibility - facilitates maintenance operations
- Clean and simple design - low environmental impact

APPLICATIONS

- Passive fibre infrastructure for horizontal and vertical MDUs with internal pathways
- Passive fibre infrastructure for horizontal and vertical MDUs without internal pathways for surface mounting

ODP ITEM NAME	DIMENSIONS mm			WEIGHT gr	TECHNICAL FEATURES			MATERIAL
	HEIGHT	WIDTH	DEPTH		BRANCHING TUBES		FIBRE SPLICING	
					MONOFIBRE	MULTIBUNDLES		
BOX MINI RISER	70	50	25	40	up to 6	-	up to 6	Plastic - RAL9016 (Traffic White)
BRANCHING I	60	40	13	25	up to 8	up to 2	-	
BRANCHING II	40	40	10	15	up to 4	up to 3	-	

ODP ITEM NAME	D1 EXTERNAL Ø	D2 INTERNAL Ø	LENGTH	WEIGHT gr	FIBRE SPLICING	MATERIAL
SINGLETUBE	3.0	1.4	Spool	10	-	external LSZH protective tube
MULTITUBE	5.0	3.5	Spool	60	-	
SPLICE	5.0	3.5	400	60	1	

*Internally it has a pull element in kevlar yarns to facilitate the insertion of optical fibers.

FTTH - BUILDING CABLING SYSTEM ORDERING INFORMATION

SERIE NAME	ITEM NAME
ODP Opto Domus Products	BOX MINI RISER
	BRANCHING I
	BRANCHING II
	MULTITUBE
	SINGLETUBE
	SPLICE

OPTO DOMUS PRODUCT

Floor Box
ODP - BOX MINI RISER
It guarantees the protection, splicing and branching of the vertical cable fibers; allows re-access to individual fibers/joints for the integration of new users and ensuring a minimum radius of 15 mm everywhere.

Primary Floor Branching box
ODP - BRANCHING I
It protects and branches the fibers coming out of the open window into the sheath of the multi-fiber cable. Allows the extraction of up to 8 fibers of the multi-fiber cable in 8 distinct protective tubes for each fiber respecting a minimum radius of curvature of 15 mm. It also makes it possible to attach two additional groups of fibers extracted from the vertical cable inside two distinct multi-fiber protection tubes.

### Secondary Branching box
ODP - BRANCHING II
It protects and branches the fibers extracted from a master primary branch or from another secondary branch and conveys them in single-fiber and/or multi-fiber protection tubes. Provided with four outlets for single-fiber tubes and three for multi-fiber tubes. Extremely compact, it is used inside circular junction boxes dia. 80 mm depth 50 mm or more.
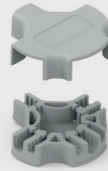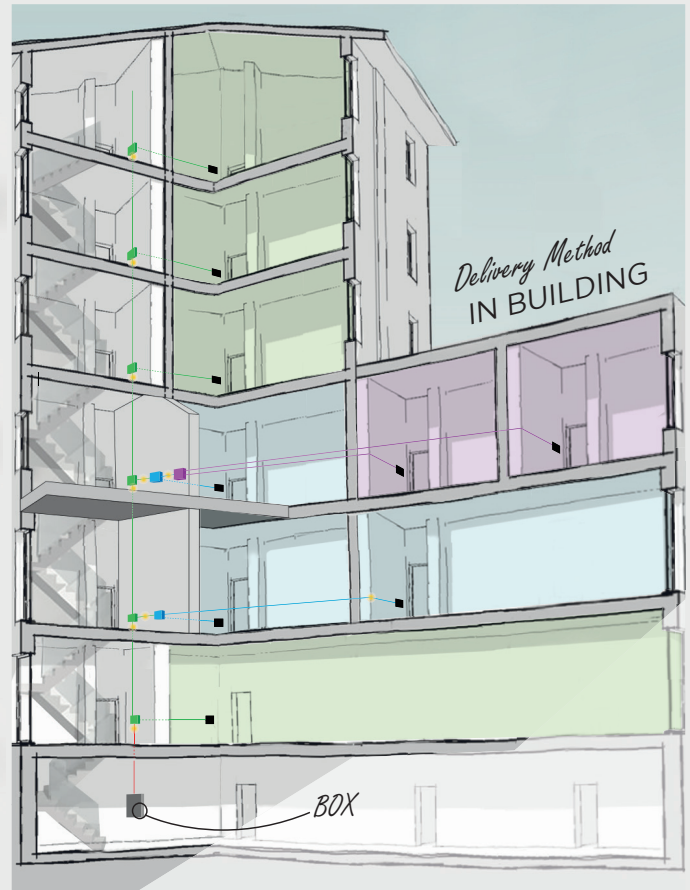
Fiber Protective Tube
ODP - MULTITUBE
Primary connection between the various branches, the multi-fiber tube is used to extract and protect the vertical cable in several modules. Internally equipped with a pull element to which to anchor the fiber kevlar, in case of long distances.

Kevlar
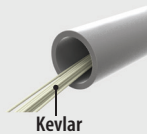
ODP - SPLICE
30 mm long thermo-shrinking [B] protection tube [A] with two protective metal crimping rings [C].
It is used to join and extend the fibers contained in the fittings made with the Singletube protection tubes towards the single building apartment.
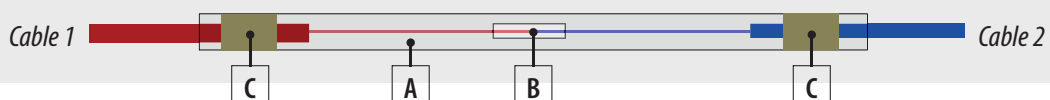
Delivery Method
IN BUILDING

BOX

ODP - SINGLETUBE
Protective tube of the single module of the multi-fiber cable. Connect the Floor Boxes, the Master or Secondary Floor Branches to the stud of the single building apartment.
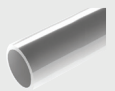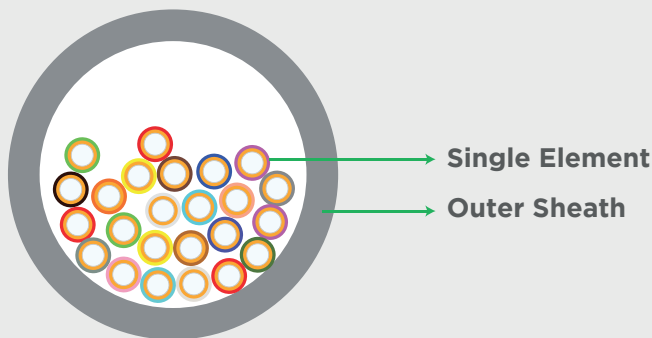
PACKAGING

PRODUCT NAME	PACKAGING TYPE	MAX DIMENSIONS (mm)			GROSS WEIGHT (gr)
		WIDTH	DEPTH	HEIGHT	
ODP-BOX MINI RISER	Carton box	355	125	100	130
ODP-BRANCHING I	Carton box	305	180	30	115
ODP-BRANCHING II	Carton box	225	165	25	110
ODP-SINGLETUBE	Plastic bag	30	-	30	20
ODP-MULTITUBE	Plastic bag	30	-	30	30
ODP-SPLICE	Plastic bag	30	-	30	40

Cable 1 ———— C ———— A ———— B ———— C ———— *Cable 2*

Indoor Retractable OFC
12-24F | Bow-Lite (E) - G.657.A2 Single Mode Fibre

→ **Single Element**

→ **Outer Sheath**

* Typical Construction Diagram - Not to Scale

Features & Benefits

• Made using ITU-T G.657.A2 bend insensitive fibres
• Easily removable coating made of inert material enables retraction of the individual fibre units from the cable through small sheath openings
• Ease of installation even with semi-skilled labour with the special thermoplastic outer sheath
• Simple structure, light weight and high practicability
• UV protected
• CPR compliant

Product Details

STL's innovative Indoor Retractable Fibre Optic Cable is constructed of multiple single mode bend insensitive fibres individually protected by aramid yarns within a 900 μm LSZH sheath and then bundled within a LSZH outer sheath.

The fibres are extracted from the sheath for a length of up to 10 metres via sheath "window" openings which eliminates the need to design and provision for traditional cable coils at drop locations. The Indoor Retractable solution is ideally suited to on-demand connectivity where the exact drop cable premises entry location may not be known until connection and can also be used for pre-provisioned drop-off points.

Cable Performance Standards

The cable complies with the following standards IEC 60794-2-20, European regulation n° 305/2011, EN 50575: 2014 + A1:2016, Fire Reaction Class: Cca, s1b, d1, a1

Printing Details

As per customer request

Note: The accuracy of marking shall be + 0.5%. Occasional loss of printing & remarking shall be as per Bell core GR 409 and this supersedes the earlier markings.

Specifications

Product Information	
Fibre Type	
Fibre Type	STL Fibre ITU.T - G657. A2
Maximum Cabled Fiber Attenuation dB/Km	1310nm : < 0.40 , 1550nm : < 0.30
Cable	
Sheathing	White or Green LSZH Outer Sheath
Simplex Fibre OD	
Fibre (Uncoloured fibre)	9/125/250 µm
Outer Diameter (LSZH)	900 +/- 50 µm

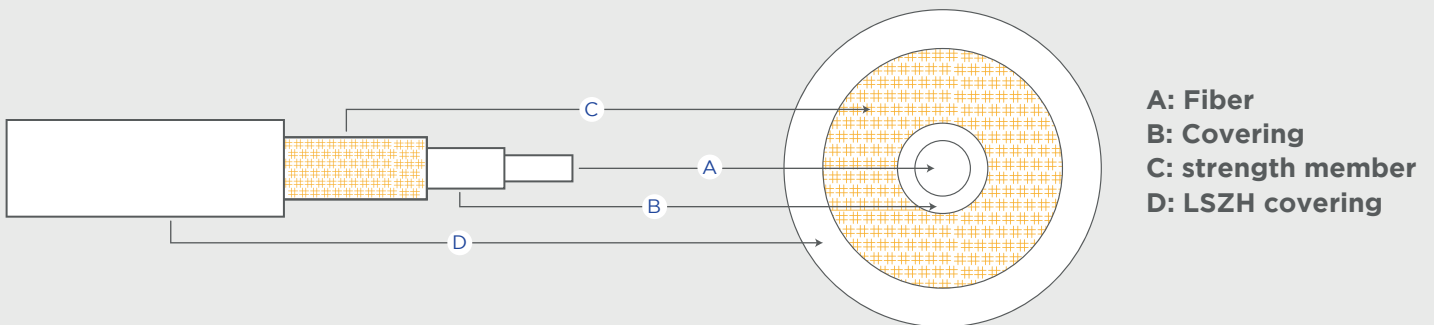| Cable Parameters						
Fiber Count	**Sheath Colour**	**Elements Color Sequence**	**Cable Diameter (± 0.5 mm)**	**Weight of Cable (Kg/Km) ± 10%**	**External Jacket's Thickness (mm)**	**Reel Length (Metres)**
12	Green/ White	Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Rose, Aqua	6.0	30	0.60	1000 ± 5%
24	Green/ White	Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Rose, Aqua, Blue*, Orange*, Green*, Brown*, Grey*, White*, Red*, Black*, Yellow*, Violet*, Rose*, Aqua*	8.0	67	1.00	1000 ± 5%

Note : *denotes black ring marking over the elements

Cable Performance			
MECHANICAL (Test Standard - IEC 60794-1-2)		**ENVIRONMENTAL** (Test Standard IEC 60794-1-2)	
Tensile Strength	50 N	*Temp. Performance, Method F1	
Short Term Bend Radius	20 D	Installation	-10ºC to +60ºC
Long Term Bend Radius	15 D	Operation	-20ºC to +70ºC
CPR Rating	Cca, s1b, d1, a1		
Crush, Method E3	50 N /100mm		

Compact Premises Fibre Cable
1F | G.657.A2 Single Mode Fibre

A: Fiber
B: Covering
C: strength member
D: LSZH covering

* Typical Construction Diagram - Not to Scale

Features & Benefits

• Highly flexible cable for ease of installation
• Small external diameter of 1.3mm ideal for locations where space is limited or aesthetic requirements

Product Details

STL's Compact Premises Fibre Cable is ideal for installation within premises due to its compact size. The CPR Cca rated cable assembly is contained within an LZSH jacket and is designed with aramid yarn to provide protection to the fibre.

Cable Performance Standards

Cable complies to the following standards Cca-s1b,d1,a1, IEC 60794-1-2, GR-409, ITU-T, RoHS, REACH.

Printing Details

As per customer request
Note: The accuracy of marking shall be + 0.5%. Occasional loss of printing & remarking shall be as per Bell core GR 409 and this supersedes the earlier markings.

Specifications

Product Information	
Fibre	
Fibre Type	STL Fibre ITU.T - G.657.A2
Maximum Cabled Fiber Attenuation dB/Km	1310nm : < 0.40 , 1550nm : < 0.30
Cable	
Strength Member	Aramid yarns distributed over & around fiber for strength
Sheathing	Flame Retardant LSZH
Simplex	
Fibre (Uncoloured fibre)	9/125/250 µm
Tight Buffer	350 µm

Optical Fiber Cable Performance			
MECHANICAL (Test Standard - IEC 60794-1-2)		**ENVIRONMENTAL** (Test Standard IEC 60794-1-2)	
Tensile Strength	50 N	* Temp. Performance, Method F1	
Short Term Bend Radius	20 D	Installation	-10ºC to +60ºC
Long Term Bend Radius	15 D	Operation	-20ºC to +70ºC
Crush, Method E3	50 N /100mm		

Physical Parameters	
Fibre Count	1
Sheath Colour	White
Covering Colour	Natural
Cable Diameter (mm)	1.3 ± 0.1
Weight (kg/km)	2.0 ± 10 %
Length in one Reel (m)	1000 ± 5%

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