FDN - FTTH Distribution Node Joint

Prysmian Part Numbers: *See below*

The FDN - FTTH Distribution Node Joint is primarily used for the distribution of optical cables / blown fibres in both aerial and underground optical fibre networks. The joint is oval in shape, medium in size and offers high flexibility due to the cable entry options presented by the joint base. The single base configuration offers 58 round cable ports and one oval port for loop through applications. The joint cover is fitted with a pressure release valve and the cap / base is sealed with an "O" ring and clamp mechanism. Cable entries can be sealed using mechanical cable entry kits (Cablelok™) on any of the ports and/or heat shrink sleeves on any of the larger ports.

Features and Benefits

- The FDN - FTTH Distribution Node Joint has a maximum capacity of 144 fibres (using standard heatshrink splice protectors).
- The joint is compatible with a large range of Prysmian manufactured optical cables including Zephyr™ mini blown cables, Rapier® micro-module cables and Sirocco® blown fibre.
- The large number of small diameter ports is ideal for the distribution of subscriber drops in FTTH networks and provides a critical flexibility point in the last mile network.
- Up to 52 small diameter (1.7mm to 9.5mm) drop cables can be distributed from the closure.
- Cables are sealed into the joint using either Cablelok™ or Heatshrink. Refer to data sheet HT006 for information on ordering cable seals.
- Splice trays hinge upwards individually, allowing full access to spliced fibres without disturbance to live fibres in adjacent trays.
- The joints are supplied with all of the components required to prepare, install and store the fibres of two cables. Cable seals are not supplied and must be ordered separately depending on diameter.
- The joints are supplied with tray inserts to cater for heath shrink splice protectors. Inserts are also available for crimp and ribbon splice protectors and mechanical splices. Please contact Prysmian for further information.

Kit Contents

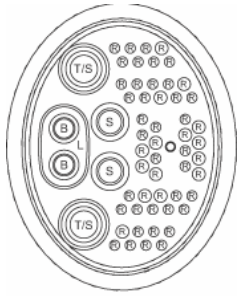
The FDN - FTTH Distribution Node is supplied with splice trays and all accessories required for the complete installation of two cables. NOTE: Cablelok™ must be purchased separately to suit the input / output cable diameter (s).

Additional Items

- Splice Protectors
- Sealing Options
- Wall & Pole Mounting Bracket
- Installation Clamp / Mounting Bracket
- Loop-through Basket Kit
- Port Opening Tools

Technical Data

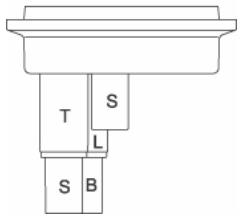
- Number of cable ports: 58 circular and 1 oval
- Maximum cable diameter (mm): 35 (see below)



Port Type	No. of ports	Cable Range (mm)	
		Cablelok™	Heatshrink
L	1	2 x 13.0 - 22.0	2 x 12.0 - 24.0
T	2	15.5 - 29.0	12.0 - 35.0
S	4	5.0 - 20.0	6.0 - 26.0
B	2	4.8 - 16.5	6.0 - 19.0
R	52	1.7 - 9.5	Not applicable

Refer to Datasheet HT006 for details on Cable Sealing options.

- Maximum number of splice trays: 12 standard



- Maximum fibre capacity of Joint: 144 Using 2.4mm Heat Shrink splice protectors
  216 Using 1.6mm Heat Shrink splice protectors
  576 Using 12 Fibre Ribbon splice protectors
  384 Using 4 Fibre Ribbon splice protectors
  288 Using Crimp splice protectors
  96 Using Universal Mechanical splices

- Required space envelope (mm): (l) 455 x (w) 312 x (d) 222
- Operating temperature: -20°C to + 50°C (5 to 95% RH)
- Sealing: IP68

Part Numbers

FDN - FTTH Distribution Node

Part No.	No. of trays	Type of tray	Method of sealing
XJHSC00040	12	Ellipse SE-A Splice Tray	Cablelok™ sealing
XJHSC00041	12	Ellipse SE-A Splice Tray	Cablelok™ & Heatshrink sealing
XJHSC00042	12	Ellipse SMF Splice Tray	Cablelok™ sealing
XJHSC00043	12	Ellipse SMF Splice Tray	Cablelok™ & Heatshrink sealing

Note: Joint is supplied with trays for heath shrink (2.4mm) splice protectors. Please see the table below for other options and capacities. To order these special part numbers please contact the Prysmian sales desk

Tray Type	Heat shrink (2.4mm) with Band	4-fibre Ribbon	Heat Shrink (1.6mm)	Crimp	Mechanical Splice	12 Fibre Ribbon
Ellipse SE-B Splice Tray	12	32	18	24	8	48
Elipse SMF Splice Tray	24					

Additional Items

Cable Sealing

The ports of the FDN – FTTH Distribution Node Joint can be sealed using Cablelok™ (all ports) or heatshrink (on the larger ports). Please see datasheet HT006 for further information.

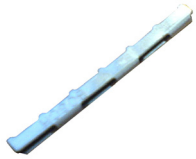
Prysmian Part No. – see Datasheet HT006

Heat Shrink Splice Protectors

Heat Shrink Splice Protectors are used to protect the fibre splice. They are 2.4mm in diameter and 45mm in length.

Prysmian Part No. - XPESC00031 (pack of 50)

Crimp Splice Protectors



Crimp Splice Protectors are used to protect the fibre splice. They are 45mm in length.

Prysmian Part No. – XKTSC00078 (pack of 50)
- XKTSC00079 (pack of 12)

Mechanical Splices

Mechanical Splices are used to splice fibres together without the need of a fusion splicing machine. They are 4mm wide x 4mm tall and 40mm in length. An assembly tool and splice holder is required for installation. See Prysmian data sheet AC007 for further information on mechanical splices.

Prysmian Part No. – XKTSC00121 (pack of 50)

Wall or Pole Mounting Bracket

The Wall or Pole Mounting Bracket allows an FDN – FTTH Distribution Node Joint to be mounted vertically or horizontally on a pole, or against a wall face or bulk head. The bracket is secured using either screws or a steel band (not provided).

Prysmian Part No. – XHASC00083

Additional Items continued

Installation Clamp / Mounting Bracket

The Universal Installation Mounting Bracket or Clamp is designed for securing the closure in the horizontal or vertical position during installation of network cables or closure maintenance. The standard version will fit a number of closures including the FDN – FTTH Distribution Node Joint, plus there is an economy version specifically for this joint. Jaws for the universal unit can be purchased separately

Prysmian Part Nos. – XHASC00077 (standard)
XHASC00083 (FDN economy version)

Loop-through Basket Kit

The Loop-through Basket Kit enables the management of uncut fibre tubes in the joint.

Prysmian Part No. – XHASC00084

Port Opening Tools

Port Opening Tools are available in a number of sizes designed for the removal of the ends of closed joint cable entry ports. Three types are used on the FDN – FTTH Distribution Node Joint, depending upon port size (see below). A Coping Saw is required for larger ports.

Prysmian Part Nos. – XHASC00071 (port size R)
XHASC00072 (port size B)
XHASC00073 (port size S)
XHASC00076 (coping saw – port sizes L & T)

Please contact your local sales office listed on **www.prysmiangroup.com**

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