

Multi Dwelling Unit (MDU)

Prysmian Part Number: See table on following pages



The Multi Dwelling Unit (MDU) enables the distribution of optical fibre within a residential building / business dwelling. There are two standard sizes of MDU available to cover a wide range of applications. The units can house various passive optical splitter modules, between 1x2 and 1x64, which cater for a large range of capacities for up to 480 customers (dependent upon building construction). The MDU also boasts an optional uniter panel which can house up to 48 SC or 96 LC connections. The MDU is fully compatible with blown fibre as a distribution unit along with the use of most other cable configurations. Prysmian offers a range of MDU configurations as standard, however there are various other combinations available upon request.

Features and Benefits

- Unit typically used in large business / residential premises and can be located in Communications Room / Basement.
- Modular System allows for easy installation and system upgrade.
- Cable management within the unit ensures the minimum bend radius for optical fibre is not exceeded.
- 'Plug and Play' connectors allows for easy tube routing.
- Changeable cable output plate to maximise the flexibility by allowing a wide range of cable constructions and diameters.
- Low profile ergonomic design.
- Lockable strong Metallic construction for security purposes.
- Brush option available for the inputs and outputs to allow for easy installation of second phase cables.
- Input gland for cable diameters ranging from 8mm to 13mm (other sizes available on request).
- Option of single circuit or single element splice trays.
- Splitters can be fitted ranging from 1x2 up to 1x64. These can be bought as an upgrade or pre-fitted if required.

Standard MDU Kit Contents

- 1 x MDU c/w single circuit splice trays
- Input plate for 8-13mm cable diameter.
- 1 x 5-5mm bulkhead connector plate
- 49 Bulk head connectors
- Cable anchor Bracket for up to 4 cables
- Brushed output
- Installation Kit
- Installation Instructions

Additional Items

- Splitter Modules – Call for further Information
- Splice Trays
- Splice Protectors
- Uniter panels
- Gland plate for the output
- Cable glands
- Bend Limiting tube
- Cable anchor bracket kits
- ARS cable anchors
- Pigtaills

| Technical data for Prysmian Multi Dwelling Unit | | Small | Large | |
|---|--------------------------------------|-----------------|-----------------|----|
| Maximum tray capacity | Single Circuit | 24 | 64 | |
| | Single Element | 15 | 40 | |
| Maximum splice capacity | Single circuit (2 Splices per tray) | 48 | 128 | |
| | Single circuit (4 splice per tray) | 96 | 256 | |
| | Single element (12 splices per tray) | 180 | 480 | |
| Maximum No. Cable Inputs | With Gland | 1 | 1 | |
| | With Brush | See table below | See table below | |
| Output adaptor plate configurations | Patch panels | SC | 48 | 48 |
| | | LC | 96 | 96 |
| | 5-5 bulkhead | 49 | 49 | |
| Maximum No. of output cables | With Gland (9-17mm dia x10) | 10 | 10 | |
| | With Brush | See table below | See table below | |

| Maximum No. of cable inputs and outputs when using a brush input | | |
|--|------------------------|-------------------------|
| Cable diameter (mm) | Number of input cables | Number of output cables |
| 0 ≥ 10 | ≥ 8 | ≥ 32 |
| 10 ≥ 20 | ≥ 4 | ≥ 16 |
| 20 ≥ 40 | 1 | ≥ 4 |

Please note that when installing more than two cables the additional cables will be tied to existing cables installed inside the MDU

| Splitter configurations | | | | | |
|-------------------------|--------|--------|-------|-------|-------|
| MDU Size | 1x2 | 1x4 | 1x8 | 1x16 | 1x32 |
| Small | 6 off | 6 off | 3 off | 3 off | 1 off |
| Large | 16 off | 16 off | 8 off | 8 off | 4 off |

| Logistical information | | Small | Large |
|------------------------|----------|--------------------------|--------------------------|
| Weight | Packed | 9.5Kg | 14.0Kg |
| | Unpacked | 9Kg | 13.5Kg |
| Dimensions | Packed | 610(h) x 457(w) x 230(d) | 910(h) x 457(w) x 230(d) |
| | Unpacked | 550(h) x 450(w) x 145(d) | 860(h) x 450(w) x 145(d) |

Part Numbers

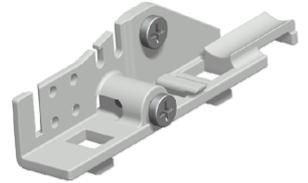
The Multi Dwelling Unit (MDU) comes in two different sizes so there are many combinations and fibre counts available. The table below lists some standard options for the Small MDU. If you require a different fibre count, or splitters preinstalled, or a Large MDU, refer to the part number constructor on page 7 or contact Prysmian for a solution unique to your requirement.

| Description | Part number Gland Input and Brush output |
|---|---|
| Standard MDU - Small 24 SC Splice Trays <i>This MDU can be used for directly splicing 48F if using two splice's per tray or 96F if using 4 splice's per tray.</i> <i>The unit comes complete with:</i> <ul style="list-style-type: none"> • 49 5-5mm bulkhead connectors. • 24 SC trays | XCPSC00892 |
| Standard MDU - Small SC/UPC x 48 and 24 SC Trays <i>This MDU comes complete with:</i> <ul style="list-style-type: none"> • 24 SC/UPC duplex uniters preinstalled • 24 SC trays <i>Pigtails can be ordered as an additional item</i> | XCPSC00931 |
| Standard MDU - Small SC/APC x 48 and 24 SC Trays <i>This MDU comes complete with:</i> <ul style="list-style-type: none"> • 24 SC/APC duplex uniters preinstalled • 24 SC trays <i>Pigtails can be ordered as an additional item</i> | XCPSC00932 |
| Standard MDU - Small SC/MM x 48 and 24 SC Trays <i>This MDU comes complete with:</i> <ul style="list-style-type: none"> • 24 SC/MM duplex uniters preinstalled • 24 SC trays <i>Pigtails can be ordered as an additional item</i> | XCPSC00933 |
| Standard MDU - Small LC/UPC x 96 and 24 SC Trays <i>This MDU comes complete with:</i> <ul style="list-style-type: none"> • 24 LC/UPC quad uniters preinstalled • 24 SC trays <i>Pigtails can be ordered as an additional item</i> | XCPSC00934 |
| Standard MDU - Small LC/APC x 96 and 24 SC Trays <i>This MDU comes complete with:</i> <ul style="list-style-type: none"> • 24 LC/APC quad uniters preinstalled • 24 SC trays <i>Pigtails can be ordered as an additional item</i> | XCPSC00935 |
| Standard MDU - Small LC/MM x 96 and 24 SC Trays <i>This MDU comes complete with:</i> <ul style="list-style-type: none"> • 24 LC/MM quad uniters preinstalled • 24 SC trays <i>Pigtails can be ordered as an additional item</i> | XCPSC00936 |

Additional Items

ARS Cable Anchor

The ARS Cable Clamp is used to anchor a single cable and to distribute up to 4 cable elements. The ARS is suitable for cables between 12 and 48 fibres. 1.5 metres of routing tube is supplied with the ARS. The ARS allows for the anchoring / termination of both the cable strength member and any Aramid within the cable construction.



Prysmian Part Nos.: - XEXSC01129

Splice Protectors

Splice protectors are used to protect the fibre splice. They are 2.2mm in diameter and 45mm in length.

Prysmian Part No. - XPESC00053 (pack of 50)
- XKTSC00050 (pack of 12)



Output Plate

Output plates can be manufactured to suit your requirements. The plate is fixed to the top of the MDU using four screws. The plate is supplied with Grommets fitted. Cable entry glands can be used to replace the grommets. The Standard Plate comes drilled to take up to 10 M25 Glands.



Prysmian Part No. - XKTSC00359 - MDU Output Gland Plate - M25x10
- XKTSC00360 - MDU Output Gland Plate - Blank

Cable Anchor Bracket

The cable anchor brackets can be fitted in to the MDU to anchor output cables. The bracket is suitable for using with cable ties or up to 4 ARS Cable anchors can be fitted to it. This kit contains one bracket and two fixing screws.



Prysmian Part No. - XKTSC00319

BEM Cable Clamp

The BEM Cable Clamp is used to anchor the cable within the MDU. The BEM is suitable for cables between 36 and 192 fibres. 20 metres of routing tube is supplied with the BEM.



Prysmian Part Nos.: XEXSC00960 - BEM + 20m of bend limiting tube

Additional Items continued

Cable Entry Glands

Cable entry glands are used to offer extra retention to the input and output cables. The output plate kit is supplied with grommets as standard. These can be removed and replaced with 9-17mm cable glands. The blank plate can be drilled to suit the following:



Prysmian Part Nos.: -

- XKTSC00280** – Cable diameter 4 – 9 mm (pack of 5) – drill size 20mm
- XKTSC00287** – Cable diameter 9 to 17mm (pack of 10) – drill size 25mm (To suit plate XKTSC00359)
- XKTSC00288** – Cable diameter 17 to 25mm (pack of 5) – drill size 32mm
- XKTSC00289** – Cable diameter 22 to 32mm (pack of 5) – drill size 40mm
- XKTSC00290** – Cable diameter 30 to 38mm (pack of 5) – drill size 50mm

Pigtails

High performance optical pigtails are a defining factor in ensuring any network performs to the highest level. Prysmian offers an extensive range of optical pigtail: All pigtails are fully qualified to Telcordia GR326 and IEC61300 and all materials used are RoHS compliant.



For technical information on the pigtails supplied, refer to Prysmian data sheet AC003.

| Connector Type | Number of Pigtails Supplied | |
|---------------------------------------|-----------------------------|------------|
| | Set of 6 | Set of 12 |
| Singlemode (G657A, 900 micron) | | |
| SC/UPC | XPPSG00073 | XPPSG00054 |
| SC/APC | XPPSG00076 | XPPSG00057 |
| LC/UPC | XPPSG00084 | XPPSG00065 |
| LC/APC | XPPSG00087 | XPPSG00068 |
| Multimode (OM2, 900 micron) | | |
| SC/UPC | XPPSG00074 | XPPSG00055 |
| LC/UPC | XPPSG00085 | XPPSG00066 |
| Multimode (OM1, 900 micron) | | |
| SC/UPC | XPPSG00075 | XPPSG00056 |
| LC/UPC | XPPSG00086 | XPPSG00067 |

Splitter Modules

Splitter Module 1x2

The splitter module 1x2 can be installed into the MJS joint. The splitter module is the same size as a 2 tray single element splice module. The splitter and the input fibre are stored in the bottom splice tray and the two output fibres are routed and stored on the top tray. Supplied with splitter pre-installed.



Prysmian Part No. - XSASC00033

Splitter Modules

Splitter Module 1x4

The splitter module 1x4 can be installed into the MJS joint. The splitter module is the same size as a 2 tray single element splice module. The splitter and the input fibre are stored in the bottom splice tray and the four output fibres are routed and stored on the top tray. Supplied with splitter pre-installed.

Prysmian Part No. - XSASC00034



Splitter Module 1x8

The splitter module 1x8 can be installed into the MJS joint. The splitter module is the same size as a 2 tray single element splice module. The splitter and the input fibre are stored in the bottom splice tray and the eight output fibres are routed and stored on the top tray. Supplied with splitter pre-installed.

Prysmian Part No. - XSASC00035



Splitter Module 1x16

The splitter module 1x16 can be installed into the MJS joint. The splitter module is the same size as a 5 tray single element splice module. The splitter is housed in the bottom splice tray. The input fibres are routed down and around the manifold in the joint and then back up to the four output splice trays. The splitter is not supplied pre-installed and must be installed by the installer in the field.

Prysmian Part No. - XSASC00036



Splitter Module 1x32

The splitter module 1x32 can be installed into the MJS joint. The splitter module is the same size as a 5 tray single element splice module. The splitter is housed in the bottom splice tray. The input fibres are routed down and around the manifold in the joint and then back up to the four output splice trays. The splitter is not supplied pre-installed and must be installed by the installer in the field.

Prysmian Part No. - XSASC00037



Splitter Module 1x64

The splitter module 1x64 can be installed into the MJS joint. The splitter module is the same size as two 5 tray single element splice modules. The splitter is housed in the bottom splice tray of one unit. The input fibres are routed down and around the manifold in the joint and then back up to the four output splice trays. The splitter is not supplied pre-installed and must be installed by the installer in the field.

Prysmian Part No. - Please contact Prysmian for details



Create Your Own MDU

This page gives you the option to create your own MDU. Simply select one item from each of the boxes below to create an MDU that suits your specific requirement. If your requirement is not listed please contact Prysmian as other variations are available.

| | | | | | | | | | | | | |
|------------|---|-------------------|---|-----------------|---|----------------------------|---|------------------|---|----------------------|---|-----------------|
| MDU | - | X | - | X | - | XX | - | X | - | X | - | X |
| | | ↑ | | ↑ | | ↑ | | ↑ | | ↑ | | ↑ |
| | | Metal work | | Splitter | | Number of splitters | | Tray Type | | Adaptor plate | | Pigtails |

A = Small MDU – Gland in / brush out
B = Small MDU – Gland in / Standard Gland out
C = Small MDU – Brush In / Brush out
D = Small MDU – Brush in / Standard Gland out
E = Large MDU – Gland in / brush out
F = Large MDU – Gland in / Standard Gland out
G = Large MDU – Brush In / Brush out
H = Large MDU – Brush in / Standard Gland out

A = 1X2
B = 1x4
C = 1X8
D = 1X16
E = 1X32
F = 1X64
X = None

Please refer to table on page two and enter a number between **01** and **16**.

 If no splitters are being fitted use the code **XX**

A = Single circuit
B = Single element
X = If Splitters are being used and no extra trays are required

 Trays will be populated to maximum capacity (refer to page 2). If splitters are used and A or B is selected above, trays will be added to complete the capacity after splitters are added.

A = 5-5mm bulkhead
B = SC/UPC
C = SC/APC
D = SC/MM
E = LC/UPC
F = LC/APC
G = LC/MM
X = None

 Plates will be fully populated with adapters.

Y = Select Y if you require pigtails to be installed by Prysmian
N = No pigtails to be installed

 If Y is selected Prysmian will install pigtails as per the adapters chosen.

Example 1. (No Splitter)

You require to take a 48F 9.9mm diameter cable into an MDU. You will be splicing the cable to SC/APC pigtails and patching them to ruggedised patchcords so you require a brushed output. You want each pair of fibres on their own splice tray (2 splices per tray), and require the unit to be supplied with the pigtails pre-installed by Prysmian. No splitters are required.

Part number = MDU-A-X-XX-A-C-Y

Example 2. (Splitters)

You taking a 4 way blown tube cable into an MDU. You do not want the cable to go through a gland as you will anchor the cable inside the MDU. Each tube is having a 2F EPFU blown into it and each fibre will be spliced to 1X4 splitter. There will be a total of eight splitters in the MDU. The splitter legs will be spliced to LC/UPC pigtails. The pigtails are patched to a pre-connectorised cable so no glands are required on the output. The pigtails are not to be supplied by Prysmian as they will be ordered separately.

Part Number = MDU-G-B-08-X-E-N

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

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