

## Indoor Multi Dwelling Unit Box for 38 & 72 FO



The MDU Box came onto the Portuguese market in 2010 and has not been improved on since then. It's the moment to reveal something innovative with unique characteristics.

YELCO Technologies' mission is to contribute to the telecommunication industry with expertise and understanding of our clients' requirements.

Therefore, this document introduces the latest innovations

### INTRODUCTION

Finding the ideal fiber installation solution for Multi Dwelling Units (**MDU**), normally apartment blocks, is a major obstacle that carriers face as the pace of Fiber to the Home (FTTH) deployments increases to meet the ever-increasing consumer demand for bandwidth.

## **INNOVATION CHALLENGES**

- Increase capacity
- Improve fiber management
- Improve splice cassette management layout
- Attractive design



***“Where the others say impossible, we try to pass the obstacles in order to reach success.”***



## **DESCRIPTION**

The MDU Box is a smart solution to facilitate the access between the infrastructure of different telecommunication operators and internal building networks.

Plugin modules are installed independently for each operator, with the building unit designed as building MDU Box, and the operator unit designed as the operator MDU Box.

The units for various operators may be connected to the same vertical optical network in a building and appear as a single unit.

## **CHARACTERISTICS**

### **Building and Operator Modular units**

Its modular versatility allows a connection between the operator unit and the building. The Operator Modular Unit receives the network

### **Compartments/Sections**

The MDU Box comprises two sections: one for the splicing of the fibres in the splice trays and another section for the patching connectivity between operator and client.

The sections are separated by a panel of SC/APC adaptors. Depending on the MDU Box version, this panel may have 38 or 72 SC/APC adaptors.

## **Flexibility**

The MDU Box may have the function of a multi-operator solution, that is, once the Operator Module Unit for operator A, is installed other operators may be connected independently of operator A.

## **Strength, Protection and Security**

The MDU Box will be certified by an independent laboratory with a minimum IP5x and IK07 rating.

## **Installation**

The adaptors panel is totally removable to facilitate the assembly of adaptors. All the covers are removable; the splice trays are opened like a book and can be removed any time. All in all, this MDU Box is easily installed and very installer friendly.



## **Applications**

The MDU Box is an optimized solution for GPON (Gigabit Passive Optical Network) networks in FTTH (Fibre to the home) topology.

The dimension of the building module shall be calculated depending on the number of access points that constitutes the building layout, it being common to all telecommunication operators.

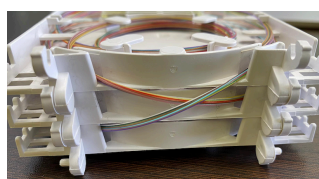
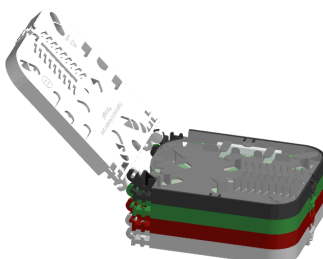
The choice of MDU Box (38 or 72 SC/APC Adaptors) will take into account the number of clients to connect with fibre, considering that for each client, 2 optical fibres are required (this value may be different from country to country).

At the bottom of the Building MDU Box unit, the optical cable from the Operator MDU Box module will be fusion spliced, as well as optical splitters (dimensions of 40x4x4 or 50x7x7) can be accommodated in the appropriate splitter cassette tray.

From the Operator MDU Box, leading from the connection section the SC/APC terminated patch-cords will be patched to the Building Module adaptors corresponding to the client being connected.

## **Advantages**

- Possible to install multiple MDU Boxes depending on operator's topology
- Independent compartments/sections
- Possible to be installed in a corner (fully side access)
- MDU Boxes are supplied with accessory kits to complete the installation
- White colour RAL9010, but with the possibility to be customized.
- Customer/Telco Operator logo directly injected onto the cover
- Innovative cassette trays
  - Maximum of 24 fusions and 2 Splitters
  - With a section for fibre management
  - Maximum Opening system to facilitate access to the cassettes below





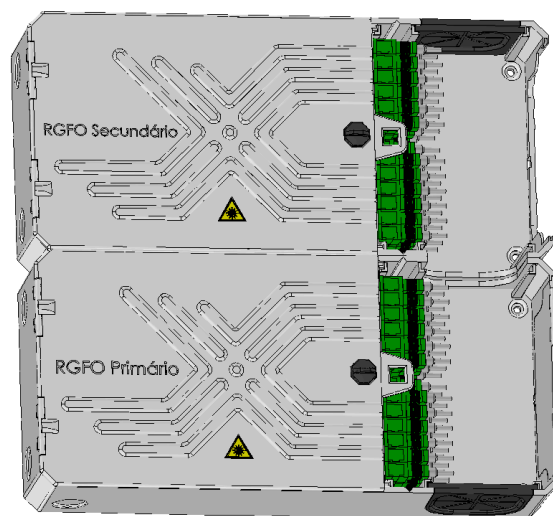
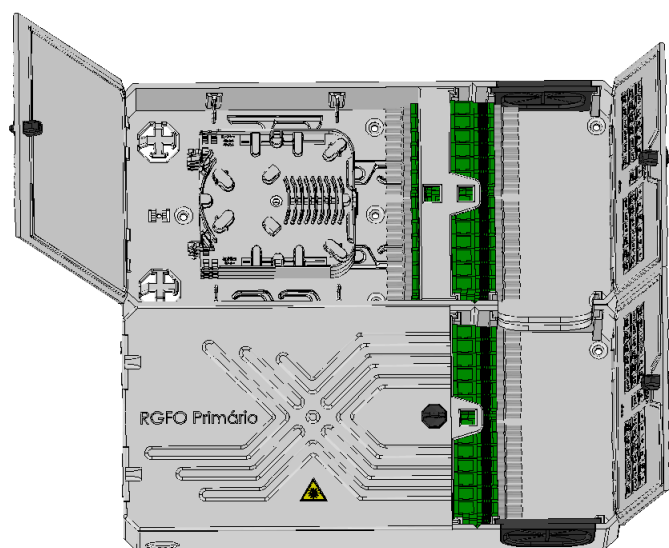
### Included Accessories

- 12 Clamps 100x2,5mm
  - 2 Clamps 140x4mm
  - 4 Screws with grommets for attaching on walls
  - 2 Cable glands M20
  - 1 Insulation tape
- 38 or 72 Fusion splice protector 45mm
  - 3 spiral tapes 0,5m for pigtail protection
  - 1 Triangular Laser protection label
  - 1 Fibre Optic label
  - 2 or 3 cassettes including cover

### Specifications

Parameters	Values		Observations
Maximum Capacity	<b>38 FO</b>	<b>72 FO</b>	
Dimensions	323 x 72 x 150	323 x 115 x 150	
Material	Plastic ABS		
Colour	RAL9010 Signal White		can be customizable
Lock / Colour / Raw material	Black POM Plastic		half turn lock
Cable entries and attaching	4 by means of cable glands and attachment by clamps		supplied in every unit
Cable Dimensions	Maximum 13,5mm		
Inputs/Outputs of patch-cords	Two zones in the connection section 50x45mm e 95x50mm		Enlarged space to facilitate management

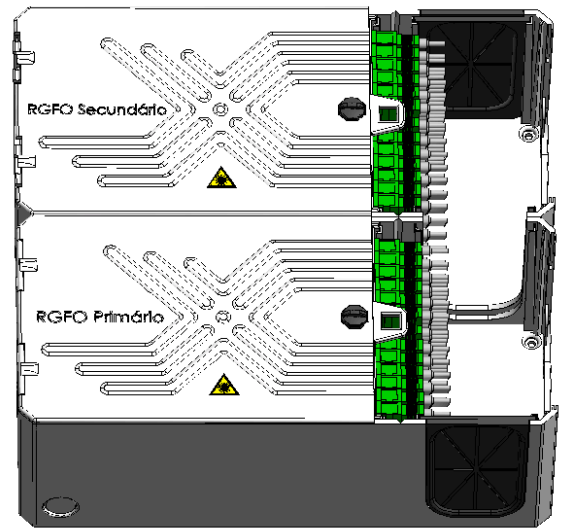
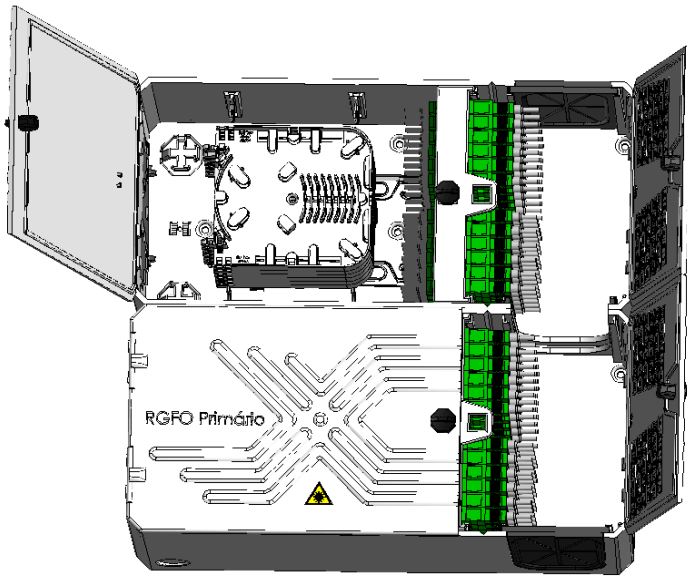
### MDU Box 38FO



YOU SAY TELCO. WE SAY

Yeah.

## **MDU Box 72FO**



## **Online videos demonstration 72 & 38FO**



SCAN ME

<https://drive.google.com/file/d/1YV7LDgZvv4S6K5MXiaoE79VrWpPf4N6F/view>



SCAN ME

[https://drive.google.com/file/d/1SGXFQh48lqs\\_j2JAaSVyISovnEyBHHMe/view](https://drive.google.com/file/d/1SGXFQh48lqs_j2JAaSVyISovnEyBHHMe/view)

## Additional products

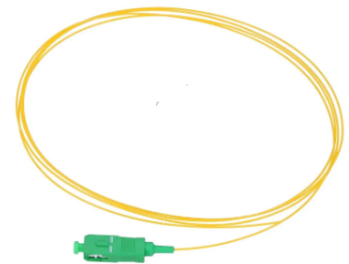
**Description** Adaptor SC/APC unibody type

**Part Number** 3000050001001



**Description** Pigtail SC/APC SM G657A2 Grade B & Easy Strip type 1mt

**Part Number** 3000110000021



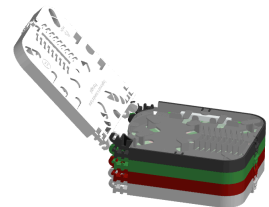
**Description** Mini Splice Tray white color up to 24 fibres

**Part Number** 1010020000066

**Description** Mini Splice Tray black color up to 24 fibres and 2 splitters\*

**Part Number** 1010020000069

\*Usually, the black color is used for the installation of Optical Splitters



**Description** Multi Dwelling Unit for 38FO SC/APC

**Part Number** 1010030000189

**Description** Multi Dwelling Unit for 72FO SC/APC

**Part Number** 1010030000190

YOU SAY TELCO. WE SAY

Yeah.

End of Technical Specification  
V10\_Proj FA075



Title of National Utility Model  
Nº 12006

**inpi** instituto nacional  
da propriedade industrial