

Ordering Guide of the FTTH Building Distribution Enclosure: BUDI product line

The BUDI Patch Wall Boxes provide one or more of the following features or functions:

management, storage, organization and re-arrangement of optical fibers, connectors, adapters, patchcords, cables, optical components and other network components;

the facility to locate and integrate the functions of (passive) optical components, i.e. splicing, splitting and ribbon fan-out.

In this BUDI Patch wall box, all passive optical components such as spitters are supplied in a pre-terminated and protective housing (OCM6) to allow customers to be connected with a simple patch operation.

The BUDI wall boxes are designed to operate in category C (controlled), category G (outdoor ground level) and category A (aerial) as characterized by IEC 61753-1. This covers both indoor and outdoor applications. In the former case this would typically be on the customer's premises such as building basements, telecommunications equipment rooms, computer rooms, etc. Non-protected locations include pole mountings and external wall sites.

The BUDI wall box consists of a bottom part and a cover, with a profiled seal for environmental protection. The protection level against water and dust is IP55.

The enclosure is UL listed, UV stable and is made from LSZH plastics.

The outgoing fibers are terminated in splice-patch trays to allow the fiber ends to be spliced to pigtails (connectors) or to store the overlength of the pre-terminated riser cable fibers.

A base tray is provided to allow the incoming fibers to be spliced to pigtails to allow later the insertion of the splitter modules (PON FTTH applications) in a frame to make a direct connection between the feeding pigtail and the input connection of the splitter by a simple insert-and-connect operation. The unused splitter ports can be parked in a waiting-position (parking panel integrated in the cover of the top patch tray) to be used when an additional customer takes service.

Customers are connected by patching one of the parked connectors in one of the adapters, mounted in one of the patch trays, connected to the fiber of the selected customer.

The base tray allows as well connecting up to 8 direct links between the feeder cable and a drop cable to connect some business customers in a point-to-point method. This is typically used to connect business customers separated from the residential customers linked to the same access network.

The box allows easy fiber access during installation, maintenance, and addition of fiber management modules.

The BUDI wall box shall be capable of accommodating the fibers of an uncut looped optical fiber cable.

It shall be possible to terminate different cable types and constructions.

All fiber cable elements shall be routed in such a way that no transmission degradation is seen when accessing these cable elements. The minimum bend radius of the fibers shall be 30 mm throughout the whole organizer system.

There are multiple wrap around cable seals available. This serves either for cable loop-through, or for in- and out-going cables.

Depending on the drop cable construction several drop cables can be installed in the box also with push through ports. Central strength member reinforced cables shall be fixed to the box with a strength member connection. A sealing mechanism is provided to seal the cable ports (standard cable glands PG¹ 16, 21 and 29 or cold sealing components).

Minimum 2 sealed outlet ports shall be available for pigtails. It is easily re-enterable to add extra pigtail cords without disturbing existing circuits.

Two sizes are available to accommodate 24 and 48 SC connectors or 48 and 96 terminations using LC connectors.

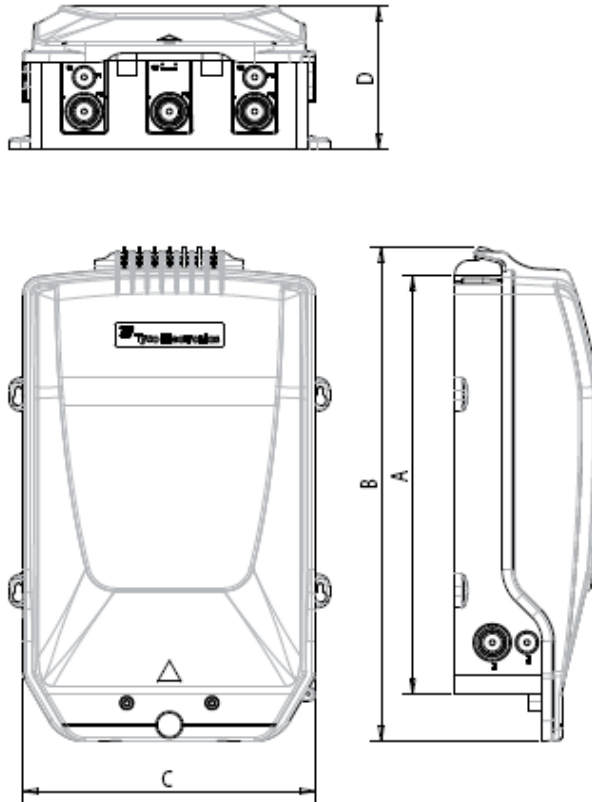
On request the boxes shall be lockable with a key.

For customers that want to use this enclosure for splicing only, the FIST splicing system is integrated using SOSA's to store and manage splices and FSASA splitter modules for accommodating splitters.

¹ Reference: DIN 40430.

1. Dimensions

The enclosure exists in two dimensions: BUDI-S and BUDI-M



Size	BUDI-M	BUDI-S
A: Height box (mm)	480	425
B: Height cover (mm)	550	500
C: Width (mm)	360	295
D: Depth (mm)	175	145

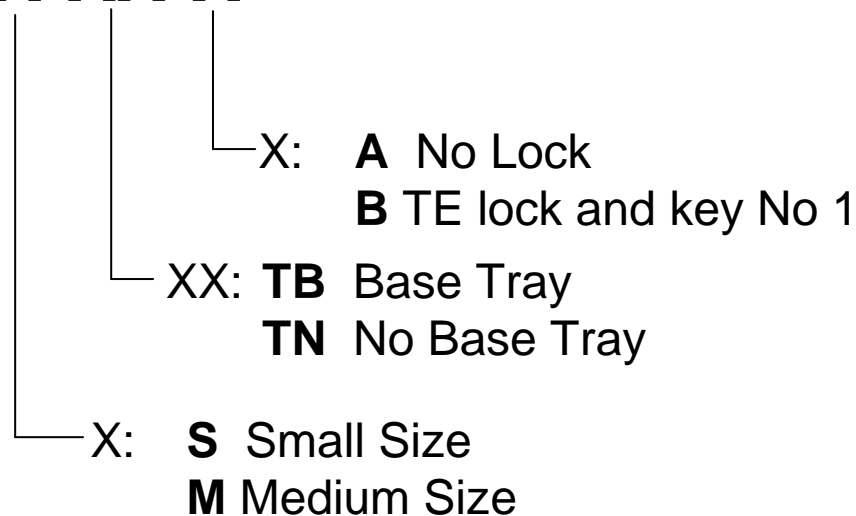
2. BUDI Termination version

The Termination version of the BUDI product range intends to allow patching for both PON (including splitter module OCM6) and PtP architectures in FTTH deployments. The termination version allows connecting customers with a simple connector patch operation (Plug-and-Play) with SC or LC connectors.

Capacities

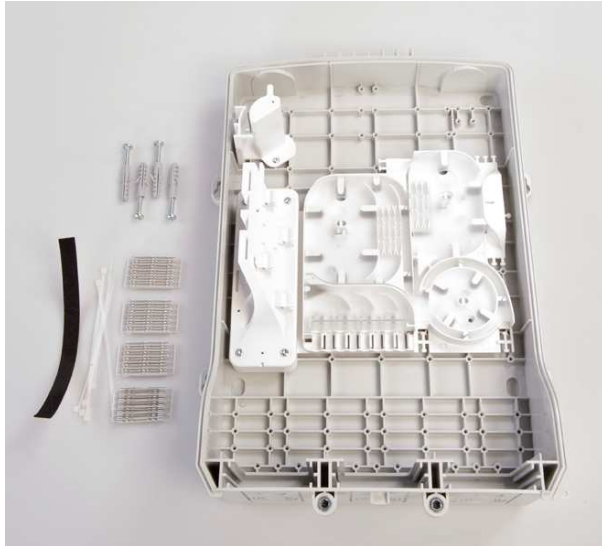
Size	BUDI-M	BUDI-S
Patch capacity SC connector with Basetray	48	24
Patch capacity SC connector w/o Basetray	60	36
Patch capacity LC connector with Basetray	96	48
Patch capacity LC connector w/o Basetray	120	72
Capacity of OCM6 modules	6	4
Capacity to splice input splitter fibers	6	6
Capacity of PtP cables to terminate on Basetray	8	8
Capacity of PtP splices in Basetray	8	8
Loop cable storage capability	yes	no

BUDI-X-XX-X



The basic kit contains

- Box base (including closing bolts)
- Box cover (including closing nuts)
- 4 mounting bolts with seals for wall mounting
- Base Tray and covers installed (for TB version only)
- Tray tower for 2 trays installed
- Splitter Pigtail bend control (for TB version only)
- Installation Instruction
- Channeling pins



BUDI-S-TB-A

Accessories

To make this box functional, standard application kits were defined that need to be added to the above enclosure.

PON Application Kits:

BUDI-PON-KIT24-SX-X

| L S: SMOUV splice protector
1: SC/UPC adapters
2: SC/APC adapters

The kit contains

- 2 patch trays (SMOUV splice holder)
- 1 cover
- 1 cover to contain connector parking lots
- 1 OCM6 splitter holder tower for 2 splitter modules
- 1 SC parking array
- 24 S1 (SC/UPC) or S2 (SC/APC) ADK's
- 2 S1 or S2 Adapters for the splitter input connection



BUDI-PON-KIT24-S2-S

BUDI-PON-KIT48-SX-X (BUDI-M only)

The kit contains

- 4 patch trays (SMOUV splice holder)
- 2 patch tray tower extensions
- 3 cover
- 1 cover to contain connector parking lots
- 1 OCM6 splitter holder tower for 2 splitter modules
- 2 splitter holder extensions (for 2 additional OCM6's)
- 2 SC parking arrays
- 1 pigtail management tower
- 48 S1 (SC/UPC) or S2 (SC/APC) ADK's
- 4 S1 or S2 Adapters for the splitter input connection

BUDI-PON-KIT48-LX-S

The kit contains

- 2 patch trays (SMOUV splice holder)
- 1 cover
- 1 cover to contain connector parking lots
- 1 OCM6 splitter holder tower for 2 splitter modules
- 2 splitter holder extensions (for 2 additional OCM6's)
- 2 LC parking arrays
- 1 pigtail management tower
- 24 L1 (SC/UPC) or L2 (SC/APC) ADK's (duplex)
- 4 S1 or S2 Adapters for the splitter input connection

BUDI-PON-KIT96-LX-S (BUDI-M only)

The kit contains

- 4 patch trays (SMOUV splice holders)
- 2 patch tray tower extensions
- 3 cover
- 1 cover to contain connector parking lots
- 1 OCM6 splitter holder tower for 2 splitter modules
- 2 splitter holder extensions (for 2 additional OCM6's)
- 2 LC parking arrays
- 1 pigtail management tower
- 48 L1 (SC/UPC) or L2 (SC/APC) ADK's
- 4 S1 or S2 Adapters for the splitter input connection

Tray extension kits:

BUDI-TRAY-XX-XX-2

Splice holder type

NN: no splice holders

A: ANT splice holder with capacity of 24 splices per tray

S: SMOUV with splice holder capacity of 24 splices per tray

Adapter type

NN: no ADK's

S1: 24 SC/UPC ADK's

S2: 24 SC/APC ADK's

L1: 24 LC/UPC duplex ADK's

L2: 24 LC/APC duplex ADK's

The kit contains

- 2 patch trays including splice holder (depending on the selection)
- 2 cover
- 2 tray tower extensions
- ADK's when selected (fully populated)
- cable element fixation accessories
- pigtail management accessories



BUDI-TRAY-S2-S-2



BUDI-TRAY-NN-S-2

Splitter Integration OCM6

In-Line OCM6 splitter module

In the connectorized version of the BUDI, the pre-connectorized splitters used are OCM 6 modules that can be inserted with a simple plug and play installation. The connection between the feeding connector and the input connector of the splitter module is made by just inserting the splitter module in the splitter tower.

The input connector is always an SC connector (embedded in the module) and PC or APC as are the outbound connectors selected on the splitter module.

For more details on the OCM6 splitter module, please check its specific data sheet.

For the **BUDI-S** the length of 61 cm has to be ordered:

OCM6-SXXXXXX-61C11

For example, a 1x8 planar splitter grade P with SC/APC connectors has the description: OCM6-SP118S2-61C11

Butt OCM6 splitter module

In case one prefers to splice the input fiber to the feeder cable, the input cord is routed to the basetray for splicing.

In this case the following description has to be used:

OCM6-SXXXXXX-61CB1

For example, a 1x16 planar splitter grade P with SC/APC connectors has the description: OCM6-SP11GS2-61CB1

Other accessories:

BUDI-SPLITTER-01-(10)

-Splitter holder extension kit with 10 OCM6 splitter holders



BUDI-BASETRAY-01

- Basetray to splice fibers to pigtails to feed splitters using the universal splice holder including ANT and SMOUV adaptation pieces
- Splice compartment to splice fibers from feeding cable to direct drop cables with splice capacity of 8 splices (universal splice holder)
- Cover for both splice compartments



BUDI-PARKING-SC-(10)

- Kit containing 10 SC connector parking modules for 16 connectors



BUDI-PARKING-LC-(10)

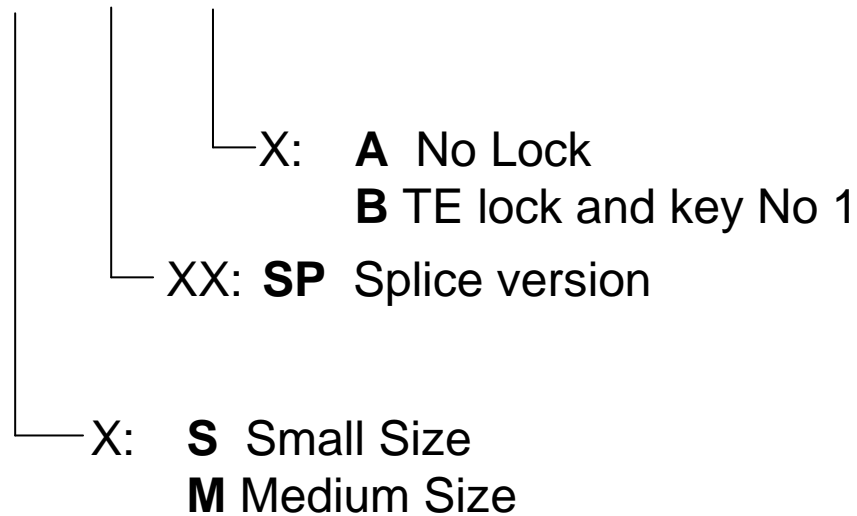
- Kit containing 10 LC connector parking modules for 16 connectors



IFDB-KTU: KTU's to be used in Basetray for the fixation of the direct drops

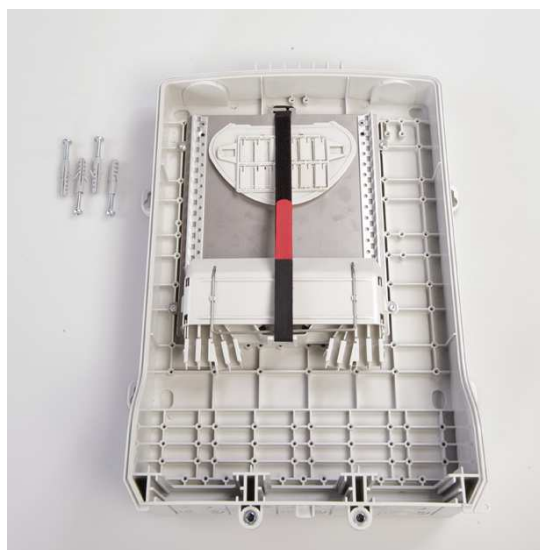
2. BUDI Splice version

BUDI-X-XX-X



The basic kit contains

- box base
- The cover
- 4 mounting bolts with seals for wall mounting ??
- Mounting plate and UMS profile
- FAS routing block and cap including tube holder(s) and retainers
- Traylid + fiber guiding pin
- Velcro strip
- Tray wedge
- Installation Instruction
- Channeling pins



Size	BUDI-M	BUDI-S
UMS units	36	28
Splice capacity SOSA SC tray (2F/tray)	72	56
Splice capacity SOSA SE tray (12F/tray)	216	168
Loop cable storage capability	yes	yes

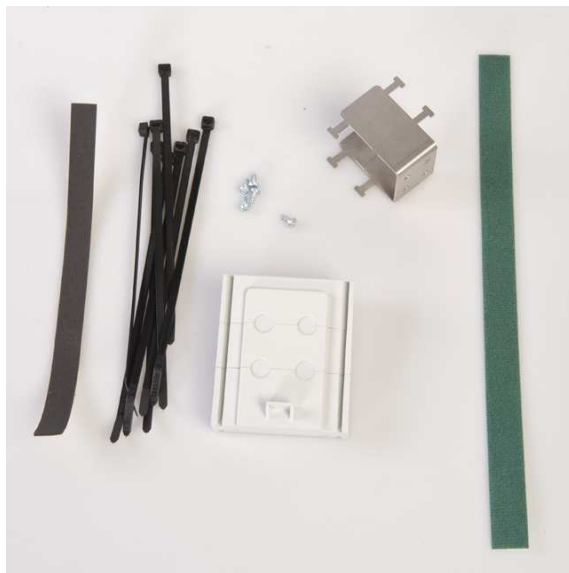
3. Accessories

Cable seals and cable termination blocks:

BUDI-S-SEAL-4x10

Wrap around cable seal for 4 cables up to 10mm diameter including:

- cable fixation bracket and tie wraps
- seal foam tape



BUDI-S-SEAL-4x15

Wrap around cable seal for 4 cables up to 15mm diameter including:

- cable fixation bracket and tie wraps
- seal foam tape



BUDI-S-SEAL-2x20

Wrap around cable seal for 2 cables up to 20mm diameter and cable seal for looped cable installation (for spliced version only of the BUDI-S) including:

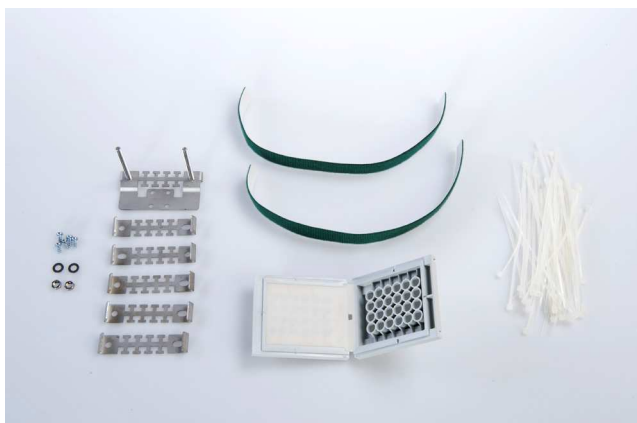
- cable fixation bracket, hose clamps and strength member fixation plates
- seal foam tape



BUDI-S-SEAL-24x5

Push Through cable seal for 24 cables up to 5mm diameter including:

- cable fixation brackets and tie wraps



BUDI-S-LOOPBRCKT-01 (For BUDI-S-SP-X only)

Loop bracket to store uncut loose tube overlength in combination with the BUDI-S-SEAL-2x20 cable termination kit.



BUDI-CBL-FIX1-GLD

This bracket allows you to fix cables in the BUDI-S and BUDI-M in combination with glands as FIST-GB-GLD-...

On this bracket one can fix the cables as well with ENSTO strength member fixation devices (separate item FIST-SB/MB-STRBR-01) and with hose clamps with an 8mm band.

