

FODIS Pro®

Central Office System

Field of Application

FODIS Pro® is an optical fibre distribution/patch system for Passive Optical Networks (PON). The main application of the system is fiber termination in Central Offices of FTTH networks. FODIS Pro® combines all the advantages of the Central Office systems available on the market.

Features

- EU designed and manufactured
- Maximum fiber density for standard rack: 1920/3840 (SC/LC)
- Maximum fiber density for High Density solution rack: 2304/4608 (SC/LC)
- Comfortable patching with two-sided overlength patchcord storage
- 3 different rack heights: 32HU/1800mm, 40HU/2200mm, 48HU/2600mm
- 2 optional extensions (for overlength storage)
- Open and closed rack version
- Removable and rotateable splice/patch Fiber Module
- 0.5 HU as well as 1 HU Fiber Module available
- Fiber Module frontplate with two different cut-outs and adapter mounting through snap-in angled holder
- 45 degrees snap-in angled holders for all conventional adapter types: SCsx, LCdx, E2000sx, E2000Compact, LX.5, FC, ST
- Possibility to blow fibers directly up to the fiber modules
- Integration of gas-blockers on incoming tubes possible



Product description

FODIS Pro® - Optical Distribution Frame

The FODIS Pro® system is an Optical Distribution Frame (ODF) system specially designed for Fiber-To-The-Home (FTTH) applications. It is a modular system consisting of a basic rack, cable management, Mandrel Extension Racks and Gasblocker Extension Racks and Fiber Modules. Thanks to its design this system is very flexible. The extension racks can be ordered and combined individually according to the customer's needs. Each Fiber Module has a front plate with two types of uniform cut-out patterns into which snap-in angled holders fitting into the required adapter type can be inserted. This snap-in angled holder also ensures a 45 degree angle of the adapter is maintained. Each fiber module can be used as a left-side as well as a right-side Fiber Module. Two different types of fiber protection are supported, either high rigidity harness PBT tubes or microduct tubes. If microduct tubes are used in conjunction with gasblockers, the Gasblocker Extension Rack ensures an orderly cable guidance and mounting of the gasblockers. The FODIS Pro® system can be integrated into a 19" rack as well as into an outdoor street cabinet.

Product description

FODIS Pro® Rack

The FODIS Pro® rack is the core component of every FODIS Pro® system. Both an open version as well as a closed version are available. An open version rack is turned into a closed version rack by installing side panels and doors. The rack accommodates the fiber module carrier, the cable entry plates, all types of extension modules and, if a closed version is required, the side panels as well as the front doors.

Rack features:

- Top or bottom cable entry possible.
- Easy expansion with side-by-side or back-to-back mounting of racks.
- Solutions for cross-connect and interconnect configurations.
- Backside vertical cable guidance for incoming cables.
- Bending radius protection of 30mm for fibers and patchcords.
- Intelligent patchcord management.
- Vertical patchcord cable guidance on left and right side.
- Mandrels on left and right side of the rack provide sufficient space for patchcord overlength storage.
- Integrated patchcord management to adjacent racks avoids the usage of external ducts.



Technical specifications

Color	RAL 7035, light grey
Material	Powder coated steel
Flammability	UL 94V-0

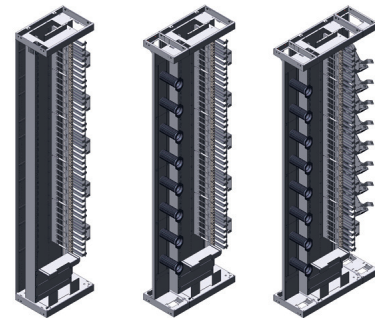
Single Row Racks

Single Row Racks

The Single Row Racks for the FODIS Pro® System are available in three different heights and two orientations. The Single Row Rack can be equipped optionally with two extension racks as well as side panels and one single door. When adding extension racks, several combinations are possible:

- one Mandrel Extension Rack
- one Gasblocker Extension Rack
- a combination of one Gasblocker Extension Rack and one Mandrel Extension Rack

Various fixing sets (see information in the accessories section of this document) are available which allow you to mount the rack to either wall or ceiling or floor. It is possible to mount several racks next to each other back-to-back (requires only floor mounting) or next to each other (requires mounting both to floor and ceiling or wall for stability reasons). A stand alone Single Row Rack should always be fixed to both floor and ceiling or wall.



FODIS Pro® - Racks

Central Office System

Dimensions & Capacity - without extensions			
	FODR 450/32HU	FODR 450/40HU	FODR 450/48HU
Rack height	1800mm	2200mm	2600mm
Rack width	450mm	450mm	450mm
Rack weight (open / closed)	50kg / 77kg	62kg / 92kg	74kg / 106kg
Max. amount of modules	32 full size or 64 half size	40 full size or 80 half size	48 full size or 96 half size
Max. amount of fiber terminations	768 SC/ E2000 1536 LC/LX.5	960 SC/ E2000 1920 LC/LX.5	1152 SC/ E2000 2304 LC/LX.5

Dimensions & Capacity - with mandrels			
	FODR 600/32HU	FODR 600/40HU	FODR 600/48HU
Rack height	1800mm	2200mm	2600mm
Rack width	600mm	600mm	600mm
Rack weight (open / closed)	60kg / 88kg	72kg / 105kg	84kg / 122kg
Max. amount of modules	32 full size or 64 half size	40 full size or 80 half size	48 full size or 96 half size
Max. amount of fiber terminations	768 SC/ E2000 1536 LC/LX.5	960 SC/ E2000 1920 LC/LX.5	1152 SC/ E2000 2304 LC/LX.5

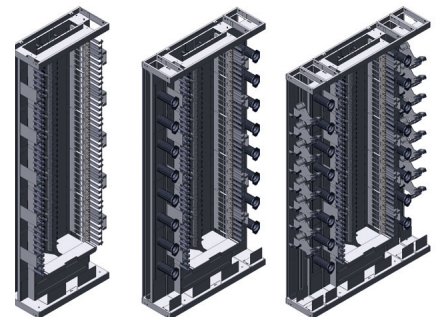
Dimensions & Capacity - with mandrels and gasblocker integration			
	FODR 750/32HU	FODR 750/40HU	FODR 750/48HU
Rack height	1800mm	2200mm	2600mm
Rack width	750mm	750mm	750mm
Rack weight (open / closed)	71kg / 99kg	83kg / 116kg	98kg / 132kg
Max. amount of modules	32 full size or 64 half size	40 full size or 80 half size	48 full size or 96 half size
Max. amount of fiber terminations	768 SC/ E2000 1536 LC/LX.5	960 SC/ E2000 1920 LC/LX.5	1152 SC/ E2000 2304 LC/LX.5

Double Row Racks

Double Row Racks

The Double Row Racks for the FODIS Pro® System are available in three different heights. The Double Row Rack can be equipped optionally with two extension racks as well as side panels and a pair of doors. For the Double Row Rack it is possible to add up to two extension racks on each side. It can be either a Mandrel Extension Rack or a Gasblocker Extension Rack.

Various fixing sets (see information in the accessories section of this document) are available which allow you to mount the rack to either wall or ceiling or floor. It is possible to mount several racks next to each other back-to-back (requires only floor mounting) or next to each other (requires mounting both to floor and ceiling or wall for stability reasons). A stand alone Double Row Rack should always be fixed to both floor and ceiling or wall.



Dimensions & Capacity - without extensions			
	FODR 700/32HU	FODR 700/40HU	FODR 700/48HU
Rack height	1800mm	2200mm	2600mm
Rack width	700mm (750mm closed rack)	700mm (750mm closed rack)	700mm (750mm closed rack)
Rack weight (open / closed)	83kg / 112kg	98kg / 133kg	115kg / 162kg
Max. amount of modules	64 full size or 128 half size	80 full size or 160 half size	96 full size or 192 half size
Max. amount of fiber terminations	1536 SC/ E2000 3072 LC/LX.5	1920 SC/ E2000 3840 LC/LX.5	2304 SC/ E2000 4608 LC/LX.5

Dimensions & Capacity - with mandrels			
	FODR 1000/32HU	FODR 1000/40HU	FODR 1000/48HU
Rack height	1800mm	2200mm	2600mm
Rack width	1000mm	1000mm	1000mm
Rack weight (open / closed)	98kg / 142kg	118kg / 170kg	138kg / 197kg
Max. amount of modules	64 full size or 128 half size	80 full size or 160 half size	96 full size or 192 half size
Max. amount of fiber terminations	1536 SC/ E2000 3072 LC/LX.5	1920 SC/ E2000 3840 LC/LX.5	2304 SC/ E2000 4608 LC/LX.5

Dimensions & Capacity - with mandrels and gasblocker integration			
	FODR 1300/32HU	FODR 1300/40HU	FODR 1300/48HU
Rack height	1800mm	2200mm	2600mm
Rack width	1300mm	1300mm	1300mm
Rack weight (open / closed)	123kg / 171kg	148kg / 205kg	174kg / 233kg
Max. amount of modules	64 full size or 128 half size	80 full size or 160 half size	96 full size or 192 half size
Max. amount of fiber terminations	1536 SC/ E2000 3072 LC/LX.5	1920 SC/ E2000 3840 LC/LX.5	2304 SC/ E2000 4608 LC/LX.5

Extension racks and additional components

Mandrel Extension Rack

The mandrels are used for cable guidance of the jumper patchcords. An optionally available back panel for the Mandrel Extension Rack must be installed when a closed version of the FODIS Pro® system is needed.

Gasblocker Extension Rack

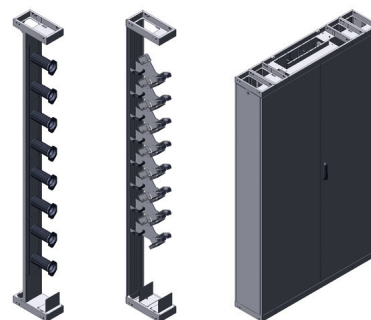
When using blow-in systems, gasblockers are essential in order to protect the installation against gas and/or water entry. The Gasblocker Extension Rack can accommodate the gasblockers. The Gasblocker Extension Rack has a built-in back panel, so no extra back panel is needed in order to turn it into a closed version.

Rack doors

If a closed rack version is required, doors can be attached to the single or double row rack. Each door has an opening angle of 180°. The doors are equipped with an integrated lever and lock and have an A4 document holder on their inner side.

Side and back panels

Side and back panels must be mounted with screws to achieve a closed rack version. The side panels for the Single/Double Row Rack is different to the side panel for an Extension Rack. Each side panel is useable for right as well as for left side mounting.



FODIS Pro® - Racks

Central Office System

Ordering Information

Single Row Racks

Description	ec-Article Nr.:
Single Row Rack RIGHT 32HU/1800mm height, open rack, 450mm width, top side cable entry ¹⁾	EC03.501001.001
Single Row Rack LEFT 32HU/1800mm height, open rack, 450mm width, top side cable entry ¹⁾	EC03.501001.021
Single Row Rack RIGHT 40HU/2200mm height, open rack, 450mm width, top side cable entry ¹⁾	EC03.501001.002
Single Row Rack LEFT 40HU/2200mm height, open rack, 450mm width, top side cable entry ¹⁾	EC03.501001.022
Single Row Rack RIGHT 48HU/2600mm height, open rack, 450mm width, top side cable entry ¹⁾	EC03.501001.003
Single Row Rack LEFT 48HU/2600mm height, open rack, 450mm width, top side cable entry ¹⁾	EC03.501001.023
Single Row Rack RIGHT 32HU/1800mm height, open rack, 450mm width, bottom side cable entry ¹⁾	EC03.501001.004
Single Row Rack LEFT 32HU/1800mm height, open rack, 450mm width, bottom side cable entry ¹⁾	EC03.501001.024
Single Row Rack RIGHT 40HU/2200mm height, open rack, 450mm width, bottom side cable entry ¹⁾	EC03.501001.005
Single Row Rack LEFT 40HU/2200mm height, open rack, 450mm width, bottom side cable entry ¹⁾	EC03.501001.025
Single Row Rack RIGHT 48HU/2600mm height, open rack, 450mm width, bottom side cable entry ¹⁾	EC03.501001.006
Single Row Rack LEFT 48HU/2600mm height, open rack, 450mm width, bottom side cable entry ¹⁾	EC03.501001.026

Double Row Racks

Double Row Rack 32HU/1800mm height, open rack, 700mm width, prepared for top cable entry ¹⁾	EC03.501001.011
Double Row Rack 32HU/1800mm height, open rack, 700mm width, prepared for bottom cable entry ¹⁾	EC03.501001.014
Double Row Rack 40HU/2200mm height, open rack, 700mm width, prepared for top cable entry ¹⁾	EC03.501001.012
Double Row Rack 40HU/2200mm height, open rack, 700mm width, prepared for bottom cable entry ¹⁾	EC03.501001.015
Double Row Rack 48HU/2600mm height, open rack, 700mm width, prepared for top cable entry ¹⁾	EC03.501001.013
Double Row Rack 48HU/2600mm height, open rack, 700mm width, prepared for bottom cable entry ¹⁾	EC03.501001.016

Mandrel Extension Rack

Mandrel Extension Rack for 32HU/1800mm height basis rack, 150mm width, 6 mandrels	EC03.501501.001
Mandrel Extension Rack for 40HU/2200mm height basis rack, 150mm width, 8 mandrels	EC03.501501.002
Mandrel Extension Rack for 48HU/2600mm height basis rack, 150mm width, 10 mandrels	EC03.501501.003

Gasblocker Rack Extension (includes back panel)

Gasblocker Rack Extension 32HU/1800mm height, 150mm width, 6 gasblocker clamps TOP ENTRY	EC03.501501.051
Gasblocker Rack Extension 40HU/2200mm height, 150mm width, 8 gasblocker clamps TOP ENTRY	EC03.501501.052
Gasblocker Rack Extension 48HU/2600mm height, 150mm width, 10 gasblocker clamps TOP ENTRY	EC03.501501.053
Gasblocker Rack Extension 32HU/1800mm height, 150mm width, 6 gasblocker clamps BOTTOM ENTRY	EC03.501501.054
Gasblocker Rack Extension 40HU/2200mm height, 150mm width, 8 gasblocker clamps BOTTOM ENTRY	EC03.501501.055
Gasblocker Rack Extension 48HU/2600mm height, 150mm width, 10 gasblocker clamps BOTTOM ENTRY	EC03.501501.056

Side and back panels for racks and extension racks

Side panel for Double Row Rack, usable for right and left side, 32HU/1800mm ²⁾	EC03.502001.001
Side panel for Double Row Rack, usable for right and left side, 40HU/2200mm ²⁾	EC03.502001.002
Side panel for Double Row Rack, usable for right and left side, 48HU/2600mm ²⁾	EC03.502001.003
Side panel for Single Row Rack or Mandrel or Gasblocker Extension Rack, 32HU/1800mm ³⁾	EC03.502001.011
Side panel for Single Row Rack or Mandrel or Gasblocker Extension Rack, 40HU/2200mm ³⁾	EC03.502001.012
Side panel for Single Row Rack or Mandrel or Gasblocker Extension Rack, 48HU/2600mm ³⁾	EC03.502001.013
Back panel for Mandrel Extension Rack, 32HU/1800mm	EC03.502002.001
Back panel for Mandrel Extension Rack, 40HU/2200mm	EC03.502002.002
Back panel for Mandrel Extension Rack, 48HU/2600mm	EC03.502002.003

1) As the Basis Rack comes preassembled (see scope of supply on page 7), it is necessary to specify the cable entry side upon ordering. Cable clamps which are required to secure and strain relief incoming cables must be ordered separately.

2) The side panel for Double Row Rack is used for a stand alone rack without any extension racks.

3) The side panel for Single Row Rack or Mandrel or Gasblocker Extension Rack is used for a Single Row Rack or a Double Row Rack when adding a Mandrel or Gasblocker Extension Rack. It is also used when having a stand alone Single Row Rack without any extension racks

Ordering Information

Front doors for Single Row Rack without extension rack

Left door for Single Row Rack FODR 450/32HU/1800mm	EC03.502000.001
Right door for Single Row Rack FODR 450/32HU/1800mm	EC03.502000.002
Left door for Single Row Rack FODR 450/40HU/2200mm	EC03.502000.003
Right door for Single Row Rack FODR 450/40HU/2200mm	EC03.502000.004
Left door for Single Row Rack FODR 450/48HU/2600mm	EC03.502000.005
Right door for Single Row Rack FODR 450/48HU/2600mm	EC03.502000.006

Front doors for Single Row Rack with one extension rack

Left door for Single Row Rack FODR 600/32HU/1800mm	EC03.502000.011
Right door for Single Row Rack FODR 600/32HU/1800mm	EC03.502000.012
Left door for Single Row Rack FODR 600/40HU/2200mm	EC03.502000.013
Right door for Single Row Rack FODR 600/40HU/2200mm	EC03.502000.014
Left door for Single Row Rack FODR 600/48HU/2600mm	EC03.502000.015
Right door for Single Row Rack FODR 600/48HU/2600mm	EC03.502000.016

Front doors for Single Row Rack with two extension racks

Description	ec-Article Nr.:
Left door for Single Row Rack FODR 750/32HU/1800mm	EC03.502000.021
Right door for Single Row Rack FODR 750/32HU/1800mm	EC03.502000.022
Left door for Single Row Rack FODR 750/40HU/2200mm	EC03.502000.023
Right door for Single Row Rack FODR 750/40HU/2200mm	EC03.502000.024
Left door for Single Row Rack FODR 750/48HU/2600mm	EC03.502000.025
Right door for Single Row Rack FODR 750/48HU/2600mm	EC03.502000.026

Front doors for Double Row Rack without extension rack

Left door for Double Row Rack FODR 700/32HU/1800mm	EC03.502000.031
Right door for Double Row Rack FODR 700/32HU/1800mm	EC03.502000.032
Left door for Double Row Rack FODR 700/40HU/2200mm	EC03.502000.033
Right door for Double Row Rack FODR 700/40HU/2200mm	EC03.502000.034
Left door for Double Row Rack FODR 700/48HU/2600mm	EC03.502000.035
Right door for Double Row Rack FODR 700/48HU/2600mm	EC03.502000.036

Front doors for double row rack with one extension rack

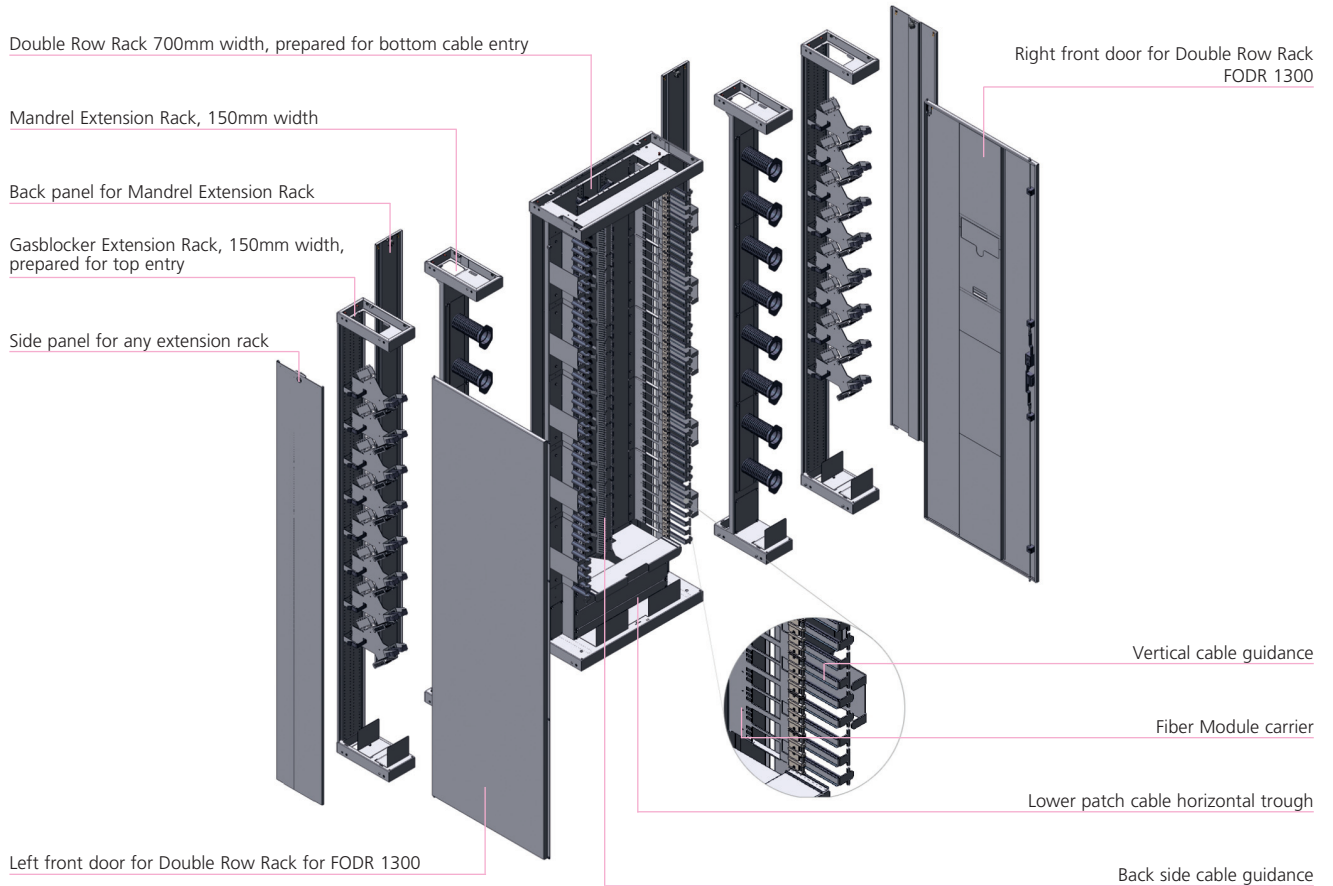
Left door for Double Row Rack FODR 1000/32HU/1800mm	EC03.502000.041
Right door for Double Row Rack FODR 1000/32HU/1800mm	EC03.502000.042
Left door for Double Row Rack FODR 1000/40HU/2200mm	EC03.502000.043
Right door for Double Row Rack FODR 1000/40HU/2200mm	EC03.502000.044
Left door for Double Row Rack FODR 1000/48HU/2600mm	EC03.502000.045
Right door for Double Row Rack FODR 1000/48HU/2600mm	EC03.502000.046

Front doors for double row rack with two extension racks

Left door for Double Row Rack FODR 1300/32HU/1800mm	EC03.502000.051
Right door for Double Row Rack FODR 1300/32HU/1800mm	EC03.502000.052
Left door for Double Row Rack FODR 1300/40HU/2200mm	EC03.502000.053
Right door for Double Row Rack FODR 1300/40HU/2200mm	EC03.502000.054
Left door for Double Row Rack FODR 1300/48HU/2600mm	EC03.502000.055
Right door for Double Row Rack FODR 1300/48HU/2600mm	EC03.502000.056

FODIS Pro® - Racks

Central Office System



Scope of supply

Additionally to your ordered rack and extension parts and to the side and back panels the basis rack is preassembled as follows:

- Assembled vertical cable guidance
- Assembled patchcord guidance (on both sides for Double Row Racks)
- Assembled cable trough
- Assembled 8HU carrier units as standart, 2HU, 4HU or 6HU are optionaly
- Assembled back side cable guidance

All fiber modules have to be ordered separately.

Required rack accessories, fiber protection type and length will be determined according to the FODIS Pro® configuration process and have to be ordered separately.

Product description

FODIS Pro® Fiber Modules

The multi-circuit management fiber modules of FODIS Pro® are used as combined splice & patch modules. They offer highest fiber density along with best maintainability. Maximum flexibility is guaranteed by metal frontplates and 45° angled adapter holders for all conventional adapter types.

The fiber modules are available in 2 sizes:

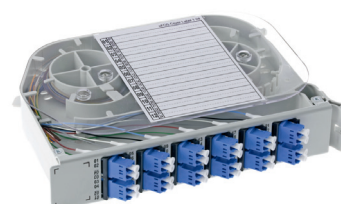
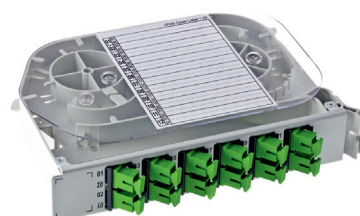
- as half-size fiber modules with a height of 0,5 HU
- as full-size fiber modules with a height of 1 HU

Fiber modules can be equipped with different adapter types or with a closed frontplate without adapters for a splice-through version (in this case, a loop-back connection of fibers can be done via splices).

The material of the LSZH fiber modules is a Polycarbonate / ABS blend. The symmetrical design of the multi-circuit management fiber modules allows you to use the same module for left- and right-side mounting. A uniform module color optimizes stockkeeping, while individual threefold color code labelling (on front, side and cover) provides fast and clear module and fiber identification.

Features:

- Fiber Modules can be rotated by 90° and are removable from the rack
- Incoming fibers and pigtails are stored in separate areas
- Easy to snap in adapter holders allow comfortable cleaning of pigtail-connector ferrules by taking off the adapter holders.
- Identical splice protection holder for both shrink and crimp splice protection
- Two-sided, easy to remove transparent covers per fiber module - bending radius protection for all fibers and pigtails
- Overlength storage of incoming cable subtube is possible on the bottom side of the module
- Integration of splitters up to 1x64 possible



Technical specifications

Color	RAL 7035, light grey
Material	Powder coated steel
Flammability	UL 94V-0
Weight (half size module)	105 grams (without adapters and pigtails)
Weight (full size module)	145 grams (without adapters and pigtails)

FODIS Pro® - Fiber Modules

Central Office System

Max. amount of adapters							
	SCsx	LCdx	E2000sx	E2000Comdx	LX.5	ST	FC
Half Size Fiber Module	6	6	6	-	6	6	6
Full Size Fiber Module	12/16/24	12/24	12/16/24	12	12/24	12/16	12/16

Max. amount of pigtails							
	SCsx	LCdx	E2000sx	E2000Comdx	LX.5	ST	FC
Half Size Fiber Module	6/8	12	6	-	12	6	6
Full Size Fiber Module	12/16/24	24/48	12/16/24	24	24/48	12/16	12/16

Max. amount of splices		
	Heat shrink splice protection	Crimp splice protection
Half Size Fiber Module	16	16
Full Size Fiber Module	48	48

Ordering Information

Half Size Fiber Modules, SM/UPC Version

Description	ec-Article Nr. ⁴⁾ :
Half Size Fiber Module (0.5HU) with 6 SC/UPCsx adapters + pigtails with G.657A fiber	EC03.5040x0.010
Half Size Fiber Module (0.5HU) with 6 SC/UPCsx swing shutter adapters + pigtails with G.657A fiber	EC03.5040x0.020
Half Size Fiber Module (0.5HU) with 6 E2000/UPCsx adapters + pigtails with G.657A fiber	EC03.5040x0.030
Half Size Fiber Module (0.5HU) with 6 LC/UPCdx adapters + pigtails with G.657A fiber	EC03.5040x0.040
Half Size Fiber Module (0.5HU) with 6 LX.5/UPCdx adapters + pigtails with G.657A fiber	EC03.5040x0.050
Half Size Fiber Module (0.5HU) with 6 ST/UPC adapters + pigtails with G.657A fiber	EC03.5040x0.070
Half Size Fiber Module (0.5HU) with 6 FC/UPC adapters + pigtails with G.657A fiber	EC03.5040x0.080

Half Size Fiber Modules, SM/APC Version

Half Size Fiber Module (0.5HU) with 6 SC/APCsx adapters + pigtails with G.657A fiber	EC03.5040x2.010
Half Size Fiber Module (0.5HU) with 6 SC/APCsx swing shutter adapters + pigtails with G.657A fiber	EC03.5040x2.020
Half Size Fiber Module (0.5HU) with 6 E2000/APCsx adapters + pigtails with G.657A fiber	EC03.5040x2.030
Half Size Fiber Module (0.5HU) with 6 LC/APCdx adapters + pigtails with G.657A fiber	EC03.5040x2.040
Half Size Fiber Module (0.5HU) with 6 LX.5/APCdx adapters + pigtails with G.657A fiber	EC03.5040x2.050
Half Size Fiber Module (0.5HU) with 6 FC/APC adapters + pigtails with G.657A fiber	EC03.5040x2.080
Half Size Fiber Module (0.5HU) with 6 E2K/APCsx adapters + pigtails with G.657A fiber	EC03.5040x2.090
Half Size Fiber Module (0.5HU) with 6 E2K/APCdx adapters + pigtails with G.657A fiber	EC03.5040x2.100

4) Please replace the „x“ either by 3 for left fiber tray or by 4 for right fiber tray.

Ordering Information

Full Size Fiber Modules, SM/UPC Version

Description	ec-Article Nr. ⁴⁾ :
Full Size Fiber Module (1HU) with 12 SC/UPCsx adapters + pigtailed with G.657A fiber	EC03.5040x1.010
Full Size Fiber Module (1HU) with 12 SC/UPCsx swing shutter adapters + pigtailed with G.657A fiber	EC03.5040x1.020
Full Size Fiber Module (1HU) with 12 E2000/UPCsx adapters + pigtailed with G.657A fiber	EC03.5040x1.030
Full Size Fiber Module (1HU) with 12 E2000/UPCComdx adapters + pigtailed with G.657A fiber	EC03.5040x1.035
Full Size Fiber Module (1HU) with 12 LC/UPCdx adapters + pigtailed with G.657A fiber	EC03.5040x1.040
Full Size Fiber Module (1HU) with 12 LX.5/UPCdx adapters + pigtailed with G.657A fiber	EC03.5040x1.050
Full Size Fiber Module (1HU) with 12 ST/UPC adapters + pigtailed with G.657A fiber	EC03.5040x1.070
Full Size Fiber Module (1HU) with 12 FC/UPC adapters + pigtailed with G.657A fiber	EC03.5040x1.080
Full Size Fiber Module (1HU) with 16 SC/UPCsx adapters + pigtailed with G.657A fiber	EC03.5040x1.011
Full Size Fiber Module (1HU) with 16 SC/UPCsx swing shutter adapters + pigtailed with G.657A fiber	EC03.5040x1.021
Full Size Fiber Module (1HU) with 16 E2000/UPCsx adapters + pigtailed with G.657A fiber	EC03.5040x1.031
Full Size Fiber Module (1HU) with 16 ST/UPCsx adapters + pigtailed with G.657A fiber	EC03.5040x1.071
Full Size Fiber Module (1HU) with 16 FC/UPCsx adapters + pigtailed with G.657A fiber	EC03.5040x1.081
Full Size Fiber Module (1HU) with 24 SC/UPCsx adapters + pigtailed with G.657A fiber	EC03.5040x1.100
Full Size Fiber Module (1HU) with 24 LC/UPCdx adapters + pigtailed with G.657A fiber	EC03.5040x1.110

Full Size Fiber Modules, SM/APC Version

Full Size Fiber Module (1HU) with 12 SC/APCsx adapters + pigtailed with G.657A fiber	EC03.5040x3.010
Full Size Fiber Module (1HU) with 12 SC/APCsx swing shutter adapters + pigtailed with G.657A fiber	EC03.5040x3.020
Full Size Fiber Module (1HU) with 12 E2000/APCsx adapters + pigtailed with G.657A fiber	EC03.5040x3.030
Full Size Fiber Module (1HU) with 12 E2000/APCComdx adapters + pigtailed with G.657A fiber	EC03.5040x3.035
Full Size Fiber Module (1HU) with 12 LC/APCdx adapters + pigtailed with G.657A fiber	EC03.5040x3.040
Full Size Fiber Module (1HU) with 12 LX.5/APCdx adapters + pigtailed with G.657A fiber	EC03.5040x3.050
Full Size Fiber Module (1HU) with 12 FC/APC adapters + pigtailed with G.657A fiber	EC03.5040x3.080
Full Size Fiber Module (1HU) with 16 SC/APCsx adapters + pigtailed with G.657A fiber	EC03.5040x3.011
Full Size Fiber Module (1HU) with 16 SC/APCsx swing shutter adapters + pigtailed with G.657A fiber	EC03.5040x3.021
Full Size Fiber Module (1HU) with 16 E2000/APCsx adapters + pigtailed with G.657A fiber	EC03.5040x3.031
Full Size Fiber Module (1HU) with 16 FC/APCsx adapters + pigtailed with G.657A fiber	EC03.5040x3.081
Full Size Fiber Module (1HU) with 24 SC/APCsx adapters + pigtailed with G.657A fiber	EC03.5040x3.100
Full Size Fiber Module (1HU) with 24 LC/APCdx adapters + pigtailed with G.657A fiber	EC03.5040x3.110
Full Size Fiber Module (1HU) with 12 E2K/APCsx adapters + pigtailed with G.657A fiber	EC03.5040x3.115
Full Size Fiber Module (1HU) with 12 E2K/APCdx adapters + pigtailed with G.657A fiber	EC03.5040x3.120

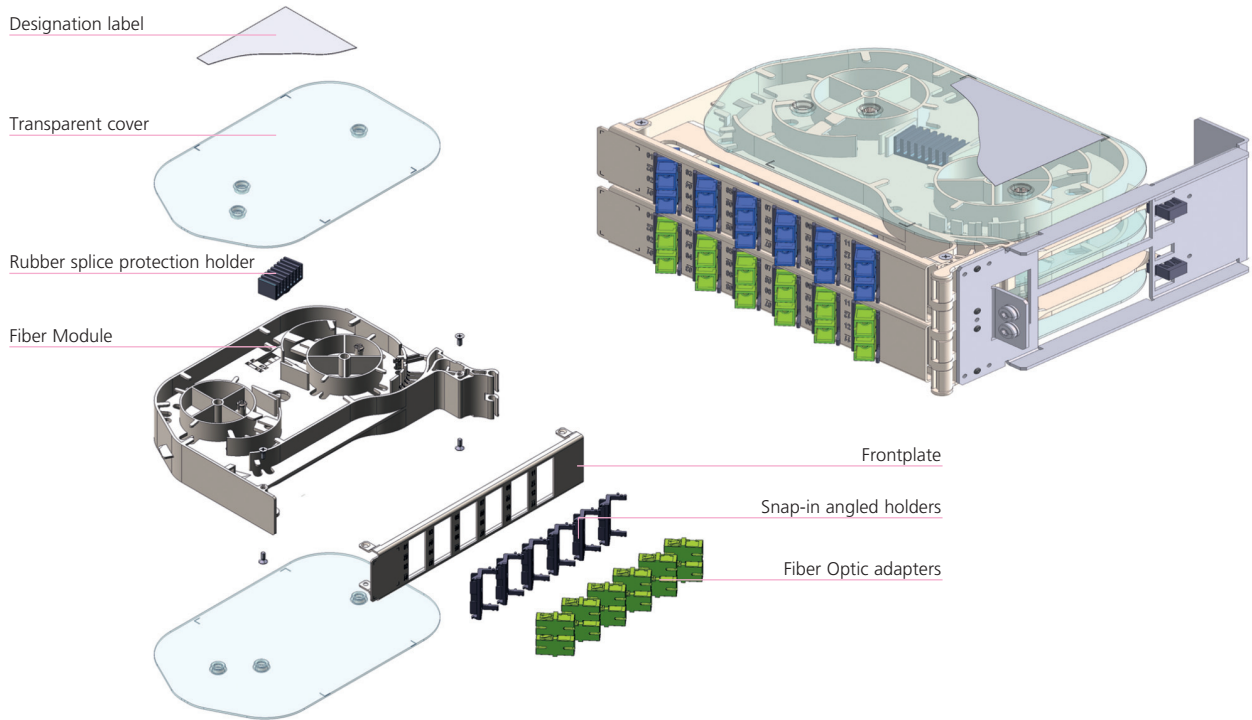
Full Size Module, Splice Through version

Full Size Fiber Module (1HU), splice through version, left	EC03.504013.002
Full Size Fiber Module (1HU), splice through version, right	EC03.504014.002

4) Please replace the „x“ either by 3 for left fiber tray or by 4 for right fiber tray.

FODIS Pro® - Fiber Modules

Central Office System



Scope of supply

Each Fiber Module is equipped with:

- Frontplate
- Snap-in angled holders
- Rubber shrink/crimp splice protection holder
- Fiber protection pipe holder
- Two transparent covers.
- Designation label
- Inserted adapters and pigtails

A shrink or crimp splice protection is not included in the fiber module and has to be ordered separately - please see our euroclust Cable Management catalogue.

Splitter integration

Product description

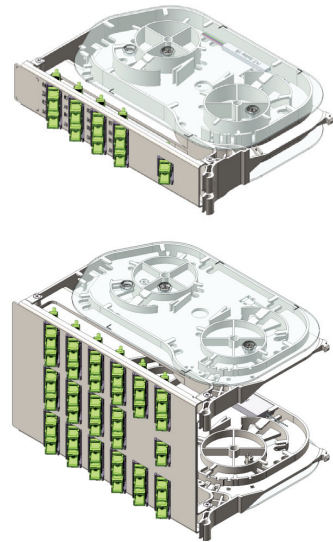
FODIS Pro® Splitter Fiber Modules

There are different types of Splitter Fiber Modules available in order to integrate a PLC splitter into the Fiber Module. It is possible to integrate all types of splitters starting from 1:4 up to 1:128.

The Splitter Fiber Module consists of either two Half Size Fiber Modules or one or two Full Size Fiber Modules (depending on the splitter ratio needed). Special frontplates designed for splitter usage ensure a clearly arranged cable guidance for both incoming signal patchcable and outgoing signal patchcables. euroclust offers various pre configured adapter configurations with integrated splitters, ready to use (see ordering information). Other adapter combinations are available upon request.

The Splitter Fiber Modules are available as 1:8, 1:16, 1:32 and 1:64 versions. The ratio indicates the amount of SC simplex ports, the actual ratio can be higher when using higher density adapter systems such as LC (see „Splitter Fiber Modules - Technical Specification“ table below).

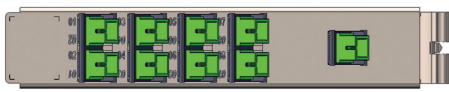
All other technical parameters for the Splitter Fiber Modules are equivalent to those of the standard Fiber Modules. For PLC splitter technical details, please see separate datasheet.



Splitter Fiber Modules - Technical Specification

	Max. amount of inputs	Max. amount of outputs	Amount of modules	Space in module carrier needed
1:8 Splitter Fiber Module	1	8 ⁵⁾ / 16 ⁶⁾	1 Full Size	1 Full Size Module
1:16 Splitter Fiber Module	2	16 ⁵⁾ / 32 ⁶⁾	2 Half Size	2 Full Size Modules
1:32 Splitter Fiber Module	1	32 ⁵⁾ / 64 ⁶⁾	2 Half Size	3 Full Size Modules
1:64 Splitter Fiber Module	1	64 ⁵⁾ / 128 ⁶⁾	2 Full Size	5 Full Size Modules

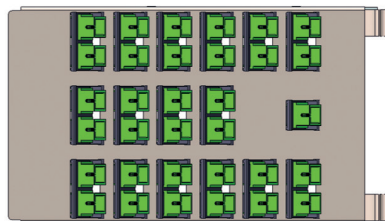
5) When using SCsx, FCsx, STsx, LX.5sx, E2000sx adapters
6) When using LCdx, E2000dx adapters



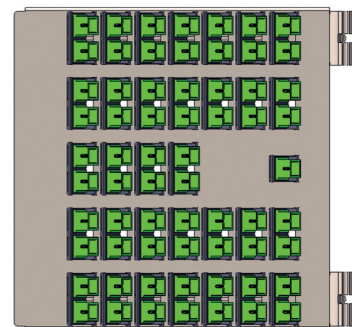
1:8 Splitter Fiber Module



1:16 Splitter Fiber Module



1:32 Splitter Fiber Module



1:64 Splitter Fiber Module

FODIS Pro® - Fiber Modules

Central Office System

Ordering Information

1:8 Splitter Fiber Module

Description	ec-Article Nr. ³⁾ :
Splitter Fiber Module 1:8, empty	EC03.506000.000
Splitter Fiber Module 1:8, assembled, SC/UPC to SC/UPC(Splitter ratio 1:8)	EC03.506000.001
Splitter Fiber Module 1:8, assembled, SC/UPC to LC/UPC (Splitter ratio 1:16)	EC03.506000.002
Splitter Fiber Module 1:8, assembled, E2000dx/UPC to E2000Comdx/UPC (Splitter ratio 1:16)	EC03.506000.003
Splitter Fiber Module 1:8, assembled, SC/APC to SC/APC(Splitter ratio 1:8)	EC03.506000.004
Splitter Fiber Module 1:8, assembled, SC/APC to LC/APC (Splitter ratio 1:16)	EC03.506000.005
Splitter Fiber Module 1:8, assembled, E2000dx/APC to E2000Comdx/APC (Splitter ratio 1:16)	EC03.506000.006
Splitter Fiber Module 1:8, assembled, E2Kdx/APC to E2Kdx/APC (Splitter ratio 1:16)	EC03.506000.007

1:16 Splitter Fiber Module

Splitter Fiber Module 1:16, empty	EC03.506000.010
Splitter Fiber Module 1:16, assembled, SC/UPC to SC/UPC (Splitter ratio 1:16)	EC03.506000.011
Splitter Fiber Module 1:16, assembled, SC/UPC to LC/UPC (Splitter ratio 1:32)	EC03.506000.012
Splitter Fiber Module 1:16, assembled, E2000dx/UPC to E2000Comdx/UPC (Splitter ratio 1:32)	EC03.506000.013
Splitter Fiber Module 1:16, assembled, SC/APC to SC/APC (Splitter ratio 1:16)	EC03.506000.014
Splitter Fiber Module 1:16, assembled, SC/APC to LC/APC (Splitter ratio 1:32)	EC03.506000.015
Splitter Fiber Module 1:16, assembled, E2000dx/APC to E2000Comdx/APC (Splitter ratio 1:32)	EC03.506000.016
Splitter Fiber Module 1:16, assembled, E2Kdx/APC to E2Kdx/APC (Splitter ratio 1:32)	EC03.506000.017

1:32 Splitter Fiber Module

Splitter Fiber Module 1:32, empty	EC03.506000.020
Splitter Fiber Module 1:32, assembled, SC/UPC to SC/UPC (Splitter ratio 1:32)	EC03.506000.021
Splitter Fiber Module 1:32, assembled, SC/UPC to LC/UPC (Splitter ratio 1:64)	EC03.506000.022
Splitter Fiber Module 1:32, assembled, E2000dx/UPC to E2000Comdx/UPC (Splitter ratio 1:64)	EC03.506000.023
Splitter Fiber Module 1:32, assembled, SC/APC to SC/APC (Splitter ratio 1:32)	EC03.506000.024
Splitter Fiber Module 1:32, assembled, SC/APC to LC/APC (Splitter ratio 1:64)	EC03.506000.025
Splitter Fiber Module 1:32, assembled, E2000dx/APC to E2000Comdx/APC (Splitter ratio 1:64)	EC03.506000.026
Splitter Fiber Module 1:32, assembled, E2Kdx/APC to E2Kdx/APC (Splitter ratio 1:64)	EC03.506000.027

1:64 Splitter Fiber Module

Splitter Fiber Module 1:64, empty	EC03.506000.030
Splitter Fiber Module 1:64, assembled, SC/UPC to SC/UPC (Splitter ratio 1:64)	EC03.506000.031
Splitter Fiber Module 1:64, assembled, SC/UPC to LC/UPC (Splitter ratio 1:128)	EC03.506000.032
Splitter Fiber Module 1:64, assembled, E2000dx/UPC to E2000Comdx/UPC (Splitter ratio 1:128)	EC03.506000.033
Splitter Fiber Module 1:64, assembled, SC/APC to SC/APC (Splitter ratio 1:64)	EC03.506000.034
Splitter Fiber Module 1:64, assembled, SC/APC to LC/APC (Splitter ratio 1:128)	EC03.506000.035
Splitter Fiber Module 1:64, assembled, E2000dx/APC to E2000Comdx/APC (Splitter ratio 1:128)	EC03.506000.036
Splitter Fiber Module 1:64, assembled, E2Kdx/APC to E2Kdx/APC (Splitter ratio 1:128)	EC03.506000.037

Scope of supply

Each Splitter Fiber Module is equipped with:

- Frontplate
- Snap-in angled holders
- Two transparent covers
- Designation label
- Inserted adapters and pigtails and PLC splitter (if ordered as assembled version)

MPO / MTP integration

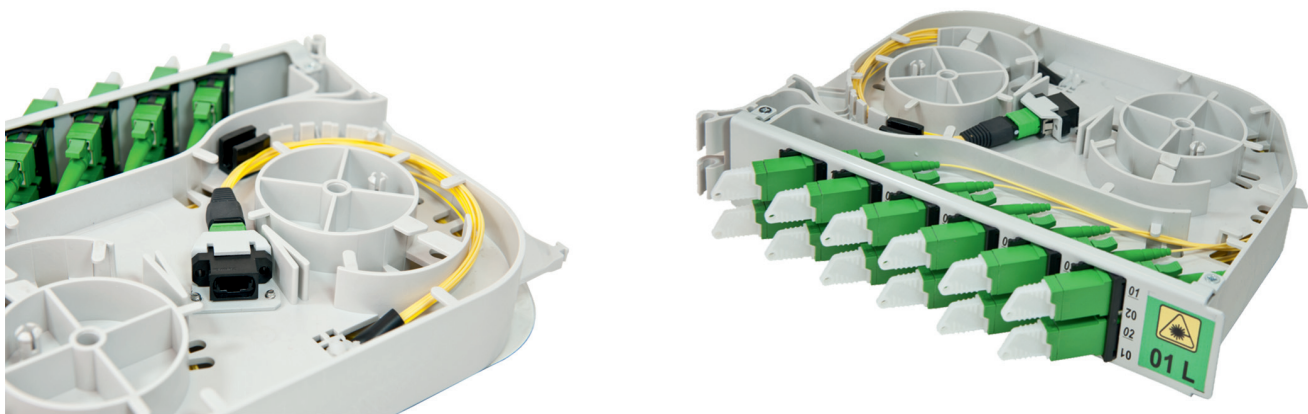
Product description

MPO/MTP integration into FODIS Pro®

euroclust also offers MPO/MTP® ready Fiber Modules. In general, there are two possibilities to integrate the MPO/MTP® system into a FODIS Pro® rack. You can use either MPO/MTP-ready Fiber Modules or you can use separate MPO/MTP® patch fields at the top of the fiber module area or at the extension bars.

FODIS Pro® MPO/MTP-ready Fiber Modules

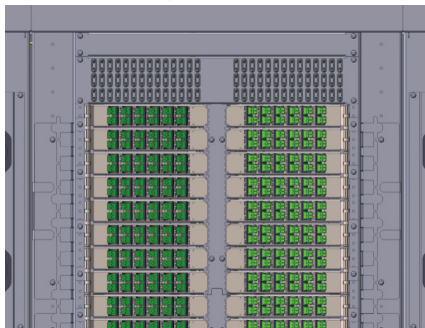
The MPO/MTP® -ready Fiber Module contains a MPO/MTP® adapter holder inside the module. To connect the adapters at the frontplate with the MPO/MTP® adapter inside the module, a MTP® direct split cable is used. The MPO/MTP® -ready Fiber Module is based on the standard Fiber Module, containing an MPO/MTP® adapter holder instead of the fiber protection sleeve holder.



The MPO/MTP® -ready Fiber Module can be ordered preassembled as shown above with mounted adapters and a MTP® direct split cable already installed. This ensures a quick installation as the Fiber Module comes ready for use. Just connect your incoming MPO/MTP® cable to the MPO/MTP® adapter located inside the Fiber Module and the Fiber Module is integrated into your network. The MPO/MTP® -ready Fiber Module is available only as a Full Size Fiber Module (1HU).

FODIS Pro® MPO/MTP patching areas

If the FODIS Pro® rack is equipped with MPO/MTP® patching areas which can either be located on top of the Fiber Module rows or at the extension racks, a MTP® fanout cable is used to connect the front plate adapters to the MPO/MTP® patch field. The Fiber Module needed can be ordered preassembled as well, equipped with adapters and the MPO/MTP® cable. The divider for the fanout cable is located inside the Fiber Module. The cable leads from the Fiber Module directly to the MPO/MTP® patching area, therefore its length must be specified upon ordering.



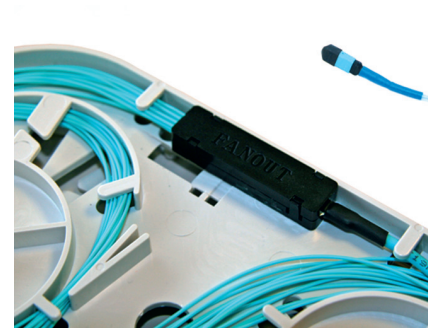
Top patching area

MPO/MTP® patching area above the Fiber Module mounting area. Available for Single Row Racks as well as for Double Row Racks.



Side patching area

MPO/MTP® patching area is integrated into the Gasblocker Extension Rack.



MPO fanout for patching areas

If the MPO/MTP® patching is installed on top of the rack or at the extension bar, a MTP® fanout cable, which leads to the MPO/MTP® patching area, must be installed into the Fiber Module.

FODIS Pro® - Fiber Modules

Central Office System

Ordering Information

MPO/MTP® -ready Fiber Modules, empty

Description	ec-Article Nr. ³⁾ :
MPO/MTP® -ready Fiber Module (1HU), empty (ready for MPO/MTP adapter mounting)	EC03.507000.000

MPO/MTP® -ready Fiber Modules, SM/UPC Version

MPO/MTP® -ready Fiber Module (1HU) with 12 SC/UPCsx adapters	EC03.5070000.001
MPO/MTP® -ready Fiber Module (1HU) with 12 SC/UPCsx swing shutter adapters	EC03.5070000.002
MPO/MTP® -ready Fiber Module (1HU) with 12 E2000/UPCsx adapters	EC03.5070000.003
MPO/MTP® -ready Fiber Module (1HU) with 12 E2000/UPCComdx adapters	EC03.5070000.004
MPO/MTP® -ready Fiber Module (1HU) with 12 LC/UPCdx adapters	EC03.5070000.005
MPO/MTP® -ready Fiber Module (1HU) with 12 LX.5/UPCdx adapters	EC03.5070000.006
MPO/MTP® -ready Fiber Module (1HU) with 12 ST/UPC adapters	EC03.5070000.008
MPO/MTP® -ready Fiber Module (1HU) with 12 FC/UPC adapters	EC03.5070000.009
MPO/MTP® -ready Fiber Module (1HU) with 16 SC/UPCsx adapters	EC03.5070000.010
MPO/MTP® -ready Fiber Module (1HU) with 16 SC/UPCsx swing shutter adapters	EC03.5070000.011
MPO/MTP® -ready Fiber Module (1HU) with 16 E2000/UPCsx adapters	EC03.5070000.012
MPO/MTP® -ready Fiber Module (1HU) with 16 E2000/UPCComdx adapters	EC03.5070000.013
MPO/MTP® -ready Fiber Module (1HU) with 16 ST/UPCsx adapters	EC03.5070000.014
MPO/MTP® -ready Fiber Module (1HU) with 16 FC/UPCsx adapters	EC03.5070000.015

MPO/MTP® -ready Fiber Modules, SM/APC Version

MPO/MTP® -ready Fiber Module (1HU) with 12 SC/APCsx adapters	EC03.5070000.021
MPO/MTP® -ready Fiber Module (1HU) with 12 SC/APCsx swing shutter adapters	EC03.5070000.022
MPO/MTP® -ready Fiber Module (1HU) with 12 E2000/APCsx adapters	EC03.5070000.023
MPO/MTP® -ready Fiber Module (1HU) with 12 E2000/APCComdx adapters	EC03.5070000.024
MPO/MTP® -ready Fiber Module (1HU) with 12 LC/APCdx adapters	EC03.5070000.025
MPO/MTP® -ready Fiber Module (1HU) with 12 LX.5/APCdx adapters	EC03.5070000.026
MPO/MTP® -ready Fiber Module (1HU) with 12 FC/APC adapters	EC03.5070000.028
MPO/MTP® -ready Fiber Module (1HU) with 12 E2K/APCsx adapters	EC03.5070000.034
MPO/MTP® -ready Fiber Module (1HU) with 12 E2K/APCComdx adapters	EC03.5070000.035
MPO/MTP® -ready Fiber Module (1HU) with 16 SC/APCsx adapters	EC03.5070000.029
MPO/MTP® -ready Fiber Module (1HU) with 16 SC/APCsx swing shutter adapters	EC03.5070000.030
MPO/MTP® -ready Fiber Module (1HU) with 16 E2000/APCsx adapters	EC03.5070000.031
MPO/MTP® -ready Fiber Module (1HU) with 16 E2000/APCComdx adapters	EC03.5070000.032
MPO/MTP® -ready Fiber Module (1HU) with 16 FC/APCsx adapters	EC03.5070000.033
MPO/MTP® -ready Fiber Module (1HU) with 16 E2K/APCsx adapters	EC03.5070000.036
MPO/MTP® -ready Fiber Module (1HU) with 16 E2K/APCdx adapters	EC03.5070000.037

Scope of supply

Each MPO/MTP® -ready Fiber Module is equipped with:

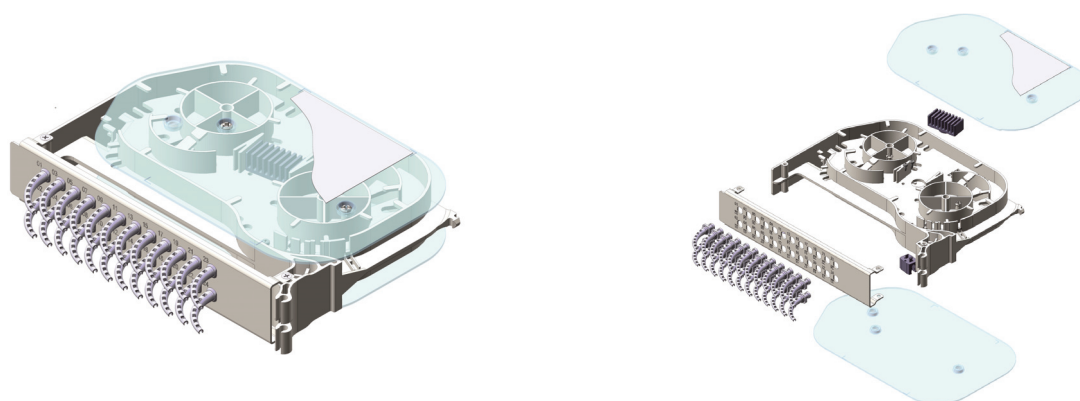
- Frontplate
- Snap-in angled holders
- Two transparent covers.
- Designation label
- MPO/MTP® adapter holder
- Inserted adapters and MTP® direct split cable (if ordered as assembled version).

Product description

FODIS Pro® Fiber Modules with 90° boots for cable pigtails

Module has special frontplate designed for installation 90° boots for pigtails. The main advantage of use this Fiber Modules is secure the minimal bending radius of cable pigtails in racks with tight space. By using this Fiber module with 90° boots are insertion losses reduced with use splice connection on incoming cable fibers.

euroclust offers various type of cable pigtails with one side mounted connectors into modules. Standard length of cable pigtails mounting into modules is 2 meters.



Ordering Information

Full Size Fiber Modules, SM/UPC Version

Description	ec-Article Nr. ⁷⁾ :
Full Size Fiber Module (1HU) 90° boots with 24 SC/UPCsx cable pigtails 1,8mm with G.657A fiber	EC03.5040x1.0??
Full Size Fiber Module (1HU) 90° boots with 24 LC/UPCsx cable pigtails 1,8mm with G.657A fiber	EC03.5040x1.0??

Full Size Fiber Modules, SM/APC Version

Full Size Fiber Module (1HU) 90° boots with 24 SC/APCsx cable pigtails 1,8mm with G.657A fiber	EC03.5040x3.0??
Full Size Fiber Module (1HU) 90° boots with 24 LC/APCsx cable pigtails 1,8mm with G.657A fiber	EC03.5040x3.0??

7) Please replace the „x” either by 3 for left fiber tray or by 4 for right fiber tray.

euroclust offer too another types of pigtails with different lengths of cable pigtails. For special order please contact your euroclust partner.

Scope of supply

Each Fiber Module is equipped with:

- Frontplate
- Snap-in angled holders
- Two transparent covers.
- Designation label
- 90° boots for cable pigtails
- Inserted pigtails

FODIS Pro® - Accessories

Central Office System

Product description

FODIS Pro®* Accessories

euroclust offers various accessories in order to install a FODIS Pro® system on location and to ensure a proper cable guidance and feeding. Each fiber module must be mounted to the basis rack by using a module carrier unit. Two different fiber protection systems are supported by FODIS Pro®.

Module carrier unit

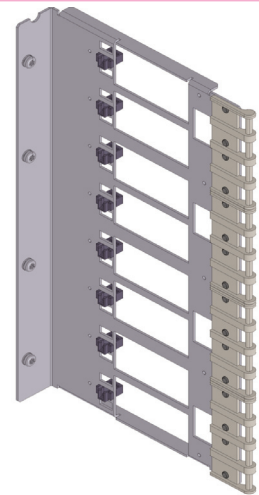
Module carrier unit

The FODIS Pro® module carrier unit accommodates the Fiber Module and allows the rotation of the Fiber Module in the rack and the removal of Fiber Modules from the rack. A flexible mix of Half Size Fiber Modules and Full Size Fiber Modules is possible by using four different sizes of module carrier units (2HU, 4HU, 6HU and 8HU versions are available). Base rack must be always assembly with ordered module carrier unit (2HU, 4HU, 6HU or 8HU versions).

The 8HU version is the standard module carrier unit.

Technical specifications

Color of bracket	RAL 7035, light grey
Material of bracket	Powder coated steel
Color of hinge	Light grey
Material of hinge	ABS
Color of door latch	Black



Fiber protection

Fiber protection tubes

Fiber protection tubes are necessary to protect the loose tubes of an incoming cable from the terminal point of the incoming cable to the Fiber Modules. Two different types of protection tubes are available. euroclust offers these fiber protection tubes per meter as well as in a set. A set for fiber protection contains the necessary quantity of tubes for each rack height, including labelling of each tube, cutting to its proper length and packed in a separate cardboard packing. Alternatively a set including pre-installation can be ordered either for the pre-installation into the base rack or into the extension rack. All fiber protection tubes are made of LSZH material.

High rigidity harness PBT tube

This kink-resistant tube-slit version ensures that a maximum bending radius of incoming cables is maintained.

Corrugated tube

Black corrugated tube is protecting incoming subtubes with fibers in horizontal way from back side cable guidance into the fiber module. Possibility to insert more subtubes with fibres, capacity depends from subcable diameter.

Microduct/Primary tube

The microduct protection tubes offer the possibility to blow in fibers directly up to the Fiber Modules. When using Microduct/Primary protection tubes, a pre-installation is possible by using our cable feeding tool. When ordering sets of microduct/primary tube, each tube is pre printed with fiber module level indication (see ordering information).

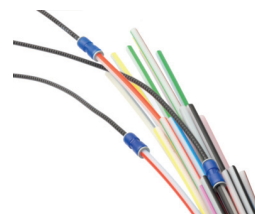
Technical specifications - High rigidity harness tube	
Color	Black
Material	polyethylene terephthalate (PBT)
Flammability	UL 94V-0
Inner diameter	3.3mm
Outer diameter	5.0mm



Technical specifications - Corrugated tube	
Color	Black
Material	polyethylene(PE), polypropylene(PP)
Flammability	UL 94V-0
Inner diameter	13mm
Outer diameter	10mm



Technical specifications - Microduct	
Color	White
Material	LSZH material
Flammability	UL 94V-0
Inner diameter	3.5mm
Outer diameter	5.0mm



Cable clamp set

Cable clamp set

The FODIS Pro® cable clamp sets are mounted either on the top or on the bottom side of the cabinet and secures the strain relief element of incoming cables. They also serve as holding point for the cable conduits. Optionally the central strength member of the incoming cable can also be fixed. Each cable clamp has 8 slots for tubes, and in one slot can be mounted 4 tubes. A cable clamp set includes the cable clamp, mounting rail, protection bar and screws.



Technical specifications	
Color	RAL 7035, light grey
Material	Powder coated steel
Dimensions	164,3mm x 90mm x 51.7mm (HxWxD)
Weight	250 grams

Max. amount of cable clamps and tubes	Single row racks			Double row racks		
	32HU	40HU	48HU	32HU	40HU	48HU
Cable clamps	4	5	6	8	10	12
Tubes	64	80	96	128	160	172

Cable clamp protector

The protector is designed to mount on cable clamp to help secure tubes in slots.

Technical specifications	
Color	RAL 7035, light grey
Material	Powder coated steel
Dimensions	62mm x 72mm x 34mm (HxWxD)
Weight	69 grams



FODIS Pro® - Accessories

Central Office System

Tools, Fixing material & Pre-Installation services

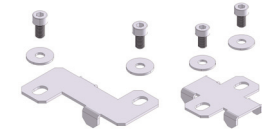
Fixing sets

Several fixing sets are available for FODIS Pro® to mount the rack to the wall, on the floor or to mount multiple racks side by side or back to back to each other. Each individual fixing set contains all necessary screws, mounting brackets, washers and anchor pins.



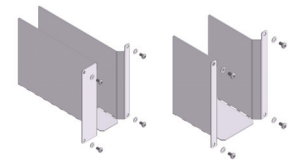
Upper connecting plate set

Upper connecting plate set is available for Fodis Pro® to mount two racks back to back. Connecting plate is mount on the top side of racks. The set includes the connecting plate, screws and washers.



Patch chanel

Through the patch chanel is possible to connect patchcords between two racks mount back to back. The set includes the patch chanel, screws and washers.



Adapter holder pincer

The adapter holder pincer is designed to easily remove the snap-in angled holder from the frontplate cutout of the FODIS Pro® fiber module. Thanks to its small and compact design it ensures the smooth removal of a snap-in angled holder without interfering with other connections.



Torx socket wrench

The torx socket wrench is necessary to mount various accessories into the base rack or the extension rack, e.g. spools in the mandrel extension rack. This tool is required to install a FODIS Pro® system.



Withdrawal tool

The withdrawal tool is necessary to insert the incoming fiber cable into the fiber protection tube which is fed up to the fiber optic module. This tool is required to install a FODIS Pro® System.



Micro duct cutting tool

A cutting tool with integrated knife to help cut microduct tubes easily to the correct length. The tool has a plastic housing and a metal knife.



Pre-Installation of fiber protection tubes

euroclust offers to install the sets of selected fiber protection tubes into the rack.

Customized labelling

euroclust can deliver each fiber module with a customized labelling of the top cover (index of all ports with description) as well as a labelling of the side of each Fiber Module (indication of the street and the building this module is assigned to) according to the customer's request. Also the labelling of the fiber module numbering can be done by euroclust.

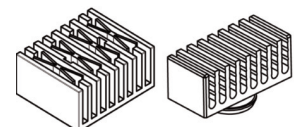
Plinth with leveling feet

Plinth with leveling feet is designed for FODIS Pro® Rack. Plinths have levelling feet which can be mounting with nuts into the floor for stability. With plinth is easily bottom cable entry.



Splice protector holders

Each fiber module is equipped with rubber shrink/crimp splice protection holder as standart. euroclust offer another three variants for splice protections mounting in fiber module. Available are two variants for Full size fiber modules and one variant for Half size fiber modules.



Ordering Information

Module carrier unit

Description	ec-Article Nr.:
Module carrier unit 2HU (for 4 Half Size Fiber Modules or 2 Full Size Fiber Modules)	EC03.503000.001
Module carrier unit 4HU (for 8 Half Size Fiber Modules or 4 Full Size Fiber Modules)	EC03.503000.002
Module carrier unit 6HU (for 12 Half Size Fiber Modules or 6 Full Size Fiber Modules)	EC03.503000.003
Module carrier unit 8HU (for 16 Half Size Fiber Modules or 8 Full Size Fiber Modules)	EC03.503000.004

Fiber protection (material only, without pre-installation)

High rigidity harness PBT tube, black (sold by meter)	EC03.101087.203
High rigidity harness PBT tube, black, set for 32HU/1800mm rack height	EC03.101087.204
High rigidity harness PBT tube, black, set for 40HU/2200mm rack height	EC03.101087.205
High rigidity harness PBT tube, black, set for 48HU/2600mm rack height	EC03.101087.206
Corrugated tube, black (sold by meter)	EC03.101087.207
Corrugated tube, black, set for 32HU/1800mm rack height	EC03.101087.208
Corrugated tube, black, set for 40HU/2200mm rack height	EC03.101087.209
Corrugated tube, black, set for 48HU/2600mm rack height	EC03.101087.210
Microduct tube, white (sold by meter)	EC03.101087.251
Microduct tube, white, set for 32HU/1800mm rack height	EC03.101087.255
Microduct tube, white, set for 40HU/2200mm rack height	EC03.101087.256
Microduct tube, white, set for 48HU/2600mm rack height	EC03.101087.257

Fiber protection (material with pre-installation)

High rigidity harness PBT tube, black, set for 32HU/1800mm rack height incl. installation into base rack	EC03.101087.258
High rigidity harness PBT tube, black, set for 40HU/2200mm rack height incl. installation into base rack	EC03.101087.259
High rigidity harness PBT tube, black, set for 48HU/2600mm rack height incl. installation into base rack	EC03.101087.260
High rigidity harness PBT tube, black, set for 32HU/1800mm rack height incl. installation into extension rack	EC03.101087.263
High rigidity harness PBT tube, black, set for 40HU/2200mm rack height incl. installation into extension rack	EC03.101087.264
High rigidity harness PBT tube, black, set for 48HU/2600mm rack height incl. installation into extension rack	EC03.101087.265
Microduct tube, white, set for 32HU/1800mm rack height incl. installation into base rack	EC03.101087.261
Microduct tube, white, set for 40HU/2200mm rack height incl. installation into base rack	EC03.101087.252
Microduct tube, white, set for 48HU/2600mm rack height incl. installation into base rack	EC03.101087.262
Microduct tube, white, set for 32HU/1800mm rack height incl. installation into extension rack	EC03.101087.266
Microduct tube, white, set for 40HU/2200mm rack height incl. installation into extension rack	EC03.101087.254
Microduct tube, white, set for 48HU/2600mm rack height incl. installation into extension rack	EC03.101087.267
Corrugated tube, black, set for 32HU/1800mm rack height incl. installation into base rack	EC03.101087.268
Corrugated tube, black, set for 40HU/2200mm rack height incl. installation into base rack	EC03.101087.269
Corrugated tube, black, set for 48HU/2600mm rack height incl. installation into base rack	EC03.101087.270
Corrugated tube, black, set for 32HU/1800mm rack height incl. installation into extension rack	EC03.101087.271
Corrugated tube, black, set for 40HU/2200mm rack height incl. installation into extension rack	EC03.101087.272
Corrugated tube, black, set for 48HU/2600mm rack height incl. installation into extension rack	EC03.101087.273

Ordering Information

Cable clamp sets

Cable clamp set for multi-tube cables - TOP ENTRY- with strain relief	EC03.503101.001
Cable clamp set for multi-tube cables - BOTTOM ENTRY- with strain relief	EC03.503101.002
Cable clamp set for multi-tube cables - TOP ENTRY- without strain relief	EC03.503104.001
Cable clamp set for multi-tube cables - BOTTOM ENTRY- without strain relief	EC03.503104.002
Cable clamp set for single-tube cables - TOP ENTRY- without strain relief	EC03.503106.001
Cable clamp set for single-tube cables - BOTTOM ENTRY- without strain relief	EC03.503106.002
Cable clamp protector	EC03.501001.012-0003

Tools

Adapterholder pincer	EC03.505000.001
Torx socket wrench TX-25 standard long	EC03.505000.010
Torx socket wrench TX-25 long extension	EC03.505000.011
Withdrawal tool	EC03.505000.020
Microduct cutting tool	EC03.505000.021

Fixing sets

Description	ec-Article Nr.:
Side-by-side fixing set	EC03.503120.001
Upper fixing set for bricks	EC03.503121.001
Upper fixing set for concrete	EC03.503121.002
Lower fixing set for concrete	EC03.503122.001
Lower fixing set for raised floor	EC03.503122.002
Patch chanel SR set (1 piece per rack)	EC03.503127.001
Patch chanel DR set (2 pieces per rack)	EC03.503128.001
Upper connecting plate SR set - fixing back-to-back	EC03.503126.001
Upper connecting plate DR set - fixing back-to-back	EC03.503129.001
Side connection plate 48HU set	EC03.503130.001
Side connection plate 40HU set	EC03.503130.002
Side connection plate 32HU set	EC03.503130.003

Plinths

Single Row Rack plinth, width 450	EC03.503125.001
Single Row Rack plinth, width 600	EC03.503125.002
Single Row Rack plinth, width 750	EC03.503125.003
Double Row Rack plinth, width 700	EC03.503125.004
Single Row Rack plinth, width 1000	EC03.503125.005
Single Row Rack plinth, width 1300	EC03.503125.006

Splice protector holders

Splice holder for full size Fiber Module, rubber - 24x ø2,5mm shrink SP or 48x ø2,5mm Crimp SP	EC03.504010.000-0014
Splice holder for half size Fiber Module, rubber - 12x ø2,5mm shrink SP or 24x ø2,5mm Crimp SP	EC03.504010.000-0025
Splice holder for full size Fiber Module, ABS - 48x ø2mm shrink SP or 48x ø2mm Crimp SP	EC03.504010.000-0086

Step by step to your system

FODIS Pro® planning process

euroclust has created a step by step guide to help you to choose and specify a FODIS Pro® system, tailored to your needs and requirements.

Step 1 Select adapter system	The FODIS Pro® planning process usually starts with the selection of the adapter system.
Step 2 Specify required capacity	The next step is to specify how many terminations (splices) are necessary on site.
Step 3 Specify type of incoming cable	Depending on the type and the method how the cable is fed into the system, the proper cable clamp set must be chosen.
Step 4 Choose cable management	Within this step you must specify what kind of fiber protection tube is needed and if gasblockers are required.
Step 5 Assign the connections to the modules	The next step is to assign the fiber terminations to fiber modules.
Step 6 Choose fiber module types and quantity	Based on the termination assignment you can choose which Fiber Modules are needed (0.5HU or 1HU) and which quantity is necessary.
Step 7 Define rack types and quantity	With the given limitations for the rack types (dimensions, open/closed versions) the type and amount of required racks can be calculated.
Step 8 Create a floor plan	With this figure, a floor plan can be created and the rack ordering code can be determined.

Ordering checklist

Ordering checklist

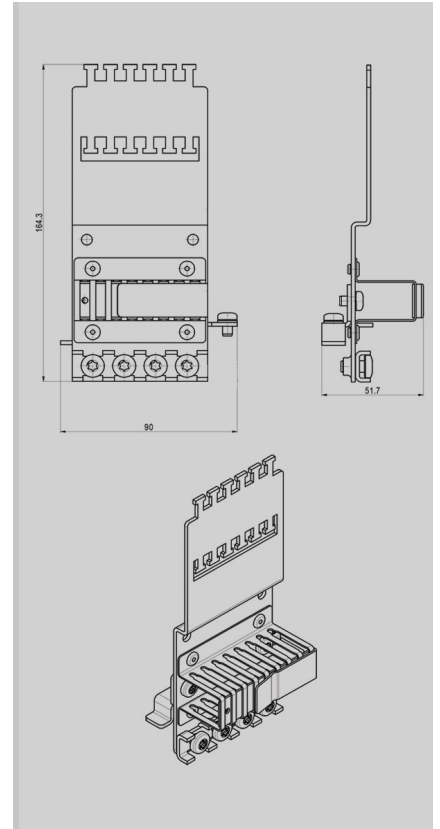
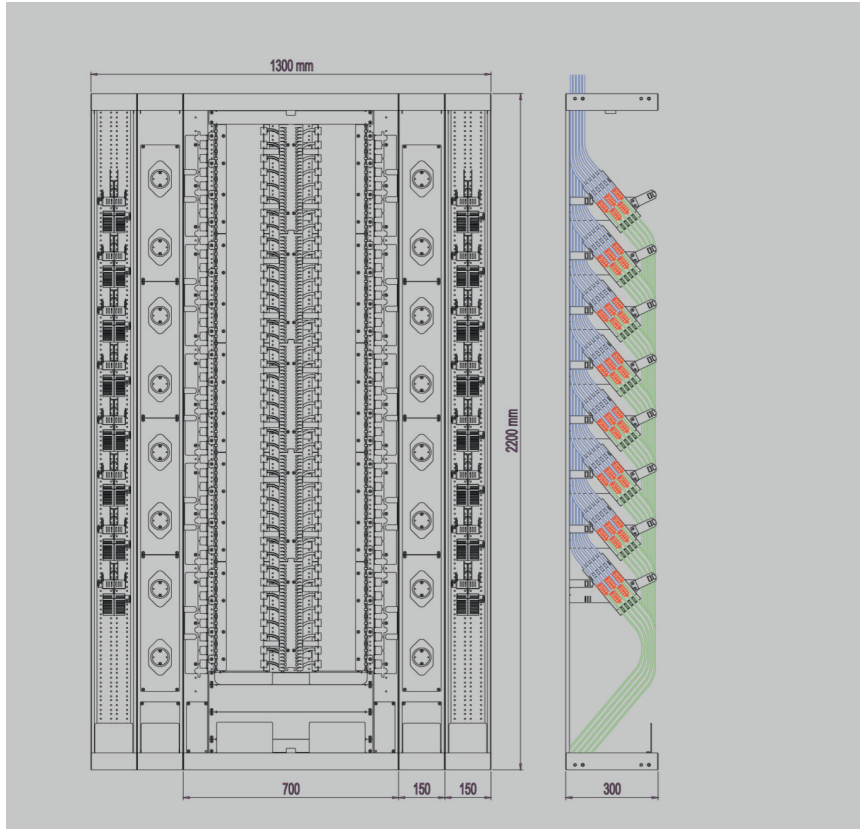
The following checklist helps you make sure that you have ordered all parts which are required to build up FODIS Pro® .

<input checked="" type="checkbox"/>	Base rack Base rack (single row or double row version)	mandatory
<input checked="" type="checkbox"/>	Extension racks, doors & side panels Mandrel or gasblocker extension racks, doors & side panels to achieve closed rack	optional
<input checked="" type="checkbox"/>	Fiber Modules Fiber modules according to your needs (0.5HU/1.0HU), with specified adapter system	mandatory
<input checked="" type="checkbox"/>	Module carrier unit The quantity depends on the quantity of Fiber Modules needed	mandatory
<input checked="" type="checkbox"/>	Fiber protection tube Either high rigidity harness PBT tube or microduct	mandatory
<input checked="" type="checkbox"/>	Fiber protection tube set Fiber protection tube cut to correct length with or without pre-installation	optional
<input checked="" type="checkbox"/>	Cable clamp set The quantity depends on the type of the incoming cable	mandatory
<input checked="" type="checkbox"/>	Fixing sets Fixing sets to mount a rack to the floor, to the wall or two racks side by side	mandatory
<input checked="" type="checkbox"/>	Tools Various tools to install a FODIS Pro® rack	recommended

FODIS Pro® - Dimensions

Central Office System

Dimensions of the FODIS Pro® components

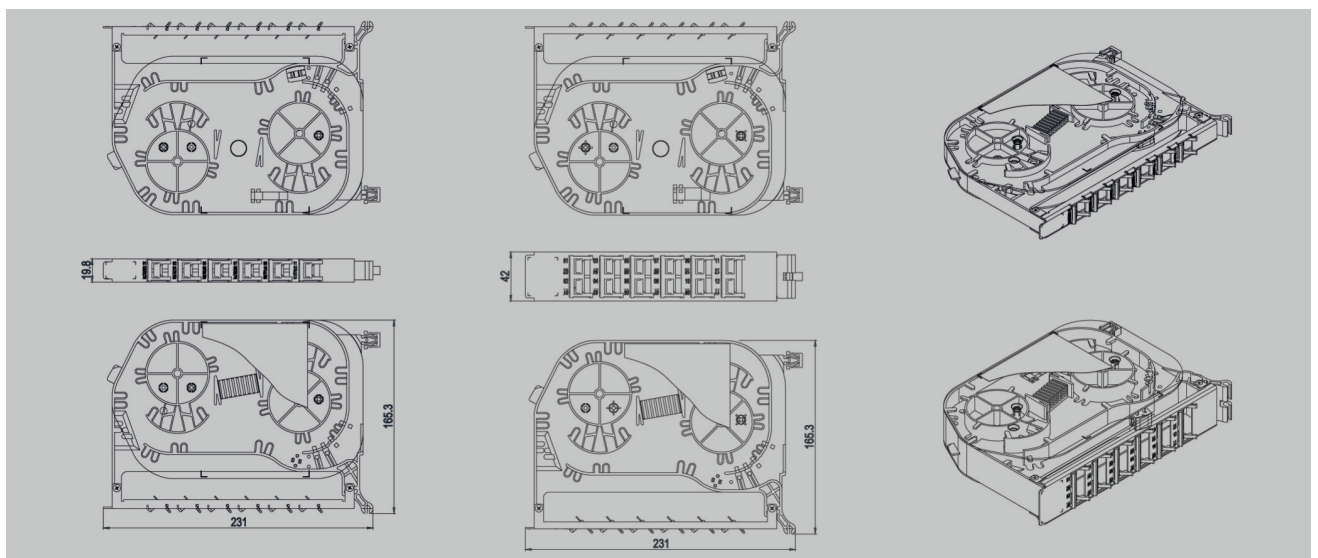


FODIS Pro® Rack

Dimensions of FODIS Pro® Rack with Mandrel Extension Rack and Gasblocker Extension Rack. Front view of the rack, side view and guidance of Gasblocker Extension Rack.

FODIS Pro® cable clamp

Dimensions of the cable clamp for fixing and strain relief of incoming cables.



Fiber Modules

Outer Dimensions of Half Size Fiber Modules and Full Size Fiber Modules. All kind of Fiber Modules have equivalent outer dimensions (except some types of Splitter Fiber Modules).

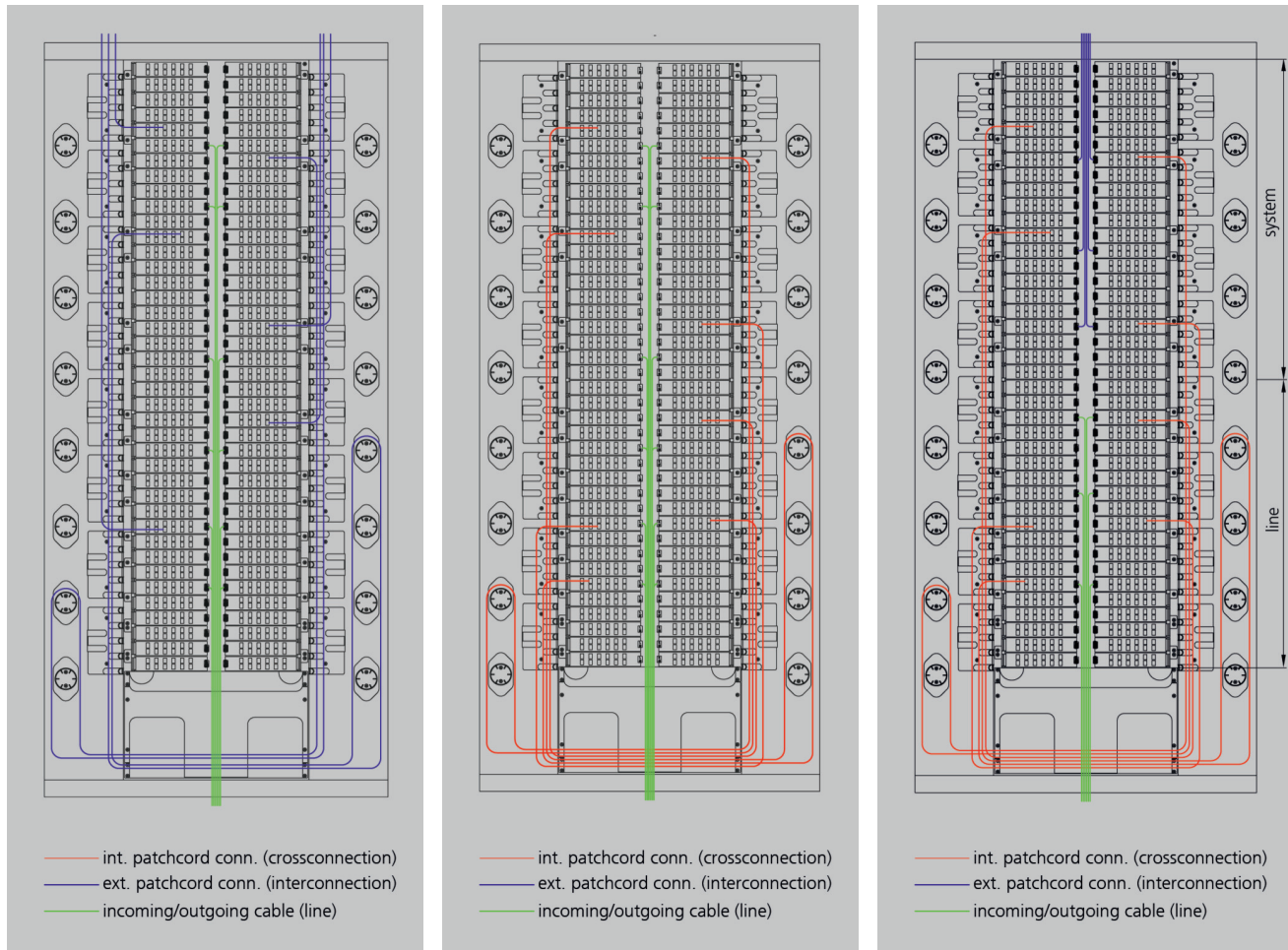
S-EN-L12-05/23-000

Connecting your subscribers to the network

Example configurations

The main application of FODIS Pro® is fiber termination in central offices of FTTH networks. The FODIS Pro® distribution/patch system can be placed as distribution node within the passive distribution network or between active components and the passive distribution network. The following sketches of connections and cabling show different approaches how to connect the subscribers to the active equipment respectively to the network backbone using one or more FODIS Pro® racks.

Configurations with one FODIS Pro®* Rack



Interconnect configuration

The line cable, which establishes the connection to the passive optical distribution network, comes from the bottom. The external patchcord connection establishes the connection to the active optical equipment such as transmitters and receivers.

Crossconnect configuration

The line cable, which establishes the connection to the passive optical distribution network, comes from the bottom. It is for incoming as well as for outgoing signals. The FODIS Pro® rack is used for patching in the distribution part of the optical network.

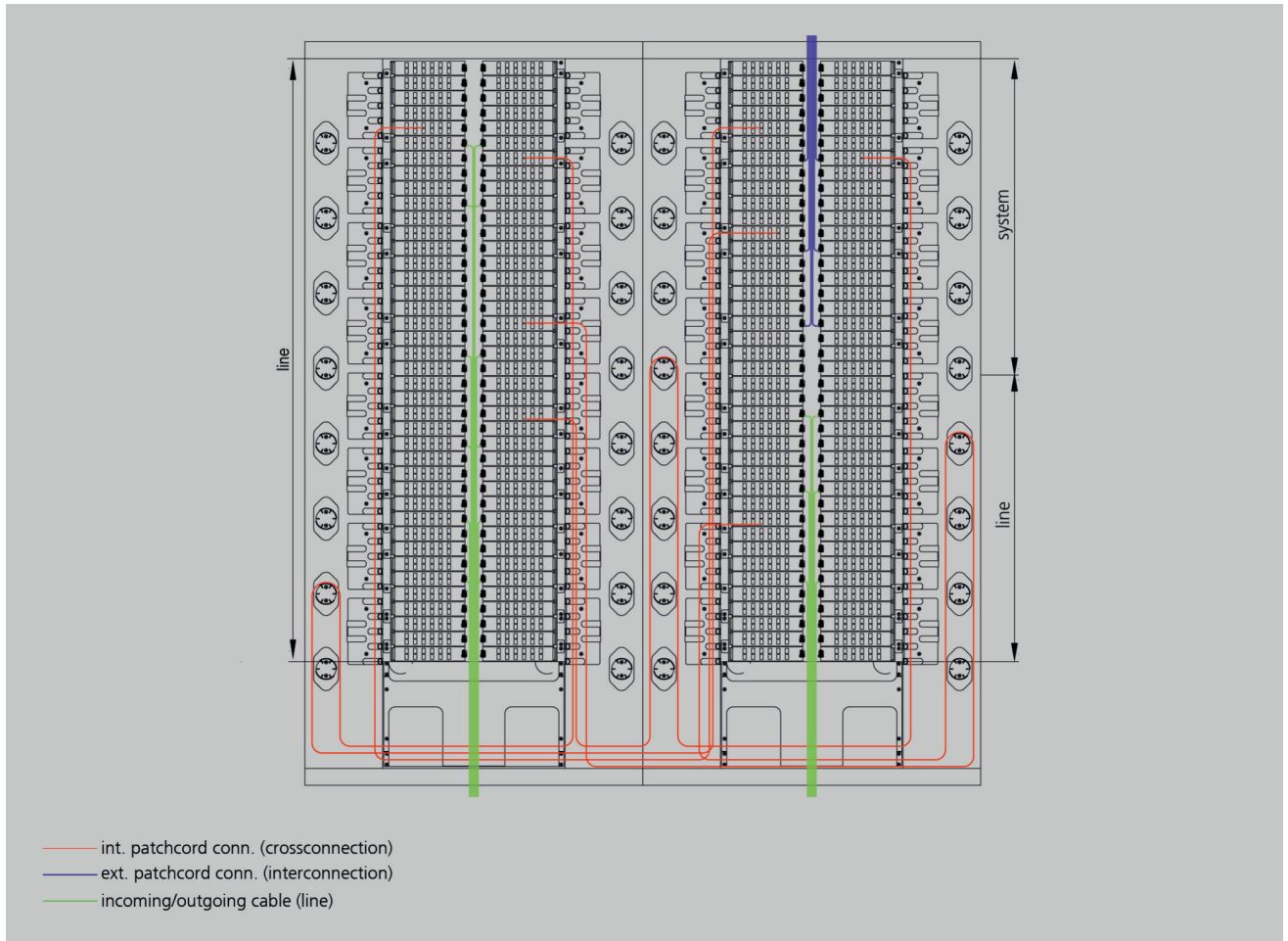
Crossconnect configuration

In this configuration example the rack is split into a system's part and a line's part. The line cable, which establishes the connection to the passive optical distribution network, comes from the bottom while the external connection cable comes from the top. Both line and external cable are terminated by Fiber Modules. An internal patchcord is used to connect the system part with the line part of the network.

FODIS Pro® - Example Configurations

Central Office System

Configuration with two FODIS Pro® Racks



Crossconnect configuration with 2 racks

In this configuration example there is one rack for the line part of the system, the second rack is split into a system part and a line part. The line cables, which establish the connection to the passive optical distribution network, is comes from the bottom while the external connection cable is coming from the top. Both, line and external cable are terminated by Fiber Modules. An internal patchcord is used to connect the system part with the line part of the network. The internal patchcord is also used to cross connections between the two FODIS Pro® Racks.

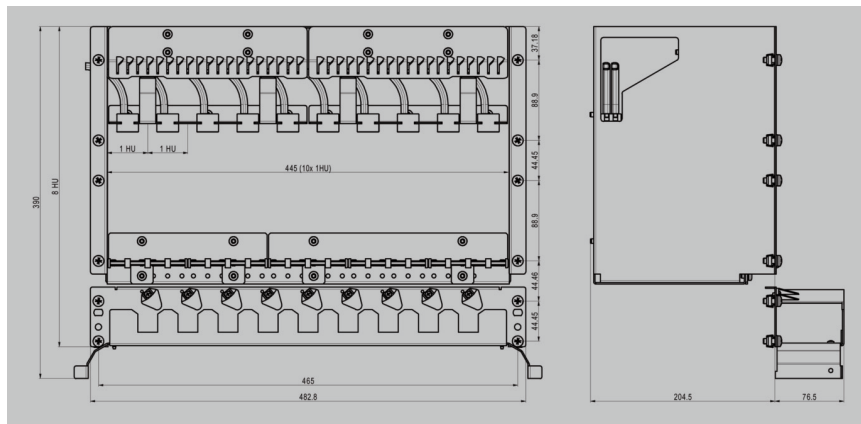
Integration of FODIS Pro® into a 19" System

Product description

FODIS Pro® 19" subrack for 10x full size fiber modules

FODIS Pro® can also be used in a 19" System by using a 19" subrack. This subrack with a horizontal patch cable guiding can accommodate up to 10 pcs. of Full Size Fiber Modules or 20 pcs. of Half Size Fiber Modules at a height of 8HU. In front side of subrack is management bar with up to nine bending radius limitators.

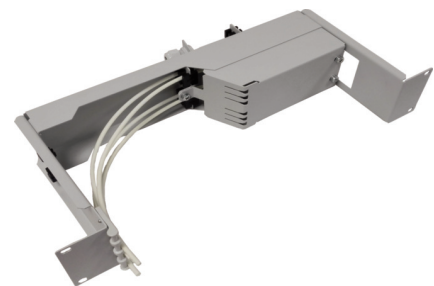
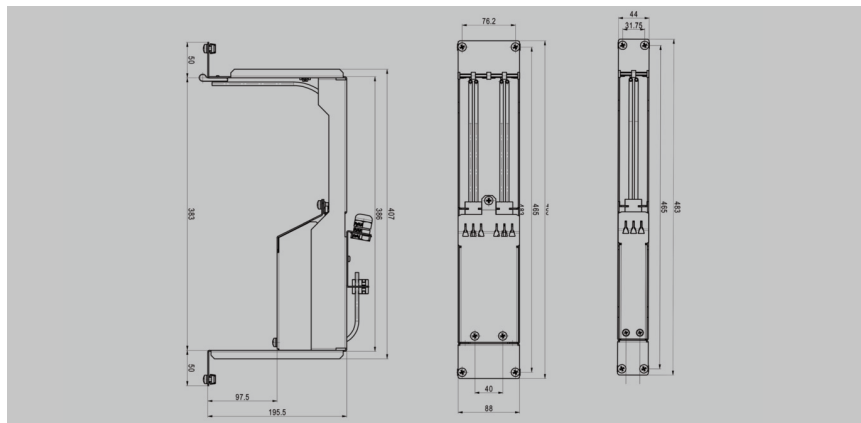
For 19" subrack you need also Multi Tube Cable Divider for provides a splitting of the subcables of an incoming cables. For more information please ask your euroclust partner for datasheet.



FODIS Pro® 19" carrier 2HU - set

FODIS Pro® can be used in a 19" System by using a 19" carrier. This carrier with a patch cable guiding can accommodate up to 2 pcs. of Full Size Fiber Modules or 4 pcs. of Half Size Fiber Modules at a height of 2HU.

The set includes 19" carrier, washers and screws for mounting into a 19" rack.



Ordering Information

Description	ec-Article Nr.:
19" Subrack for FODIS Pro® Fiber Modules, 10 Full Size or 20 Half Size Fiber Modules, 8 HU ⁸⁾	EC03.501002.001
19" Carrier for FODIS Pro® set 2HU, 2 Full Size or 4 Half Size Fiber modules	EC03.501003.001
19" Carrier for FODIS Pro® set 8HU, 8 Full Size or 16 Half Size fiber modules	EC03.501003.002
19" Carrier for FODIS Pro® set 1HU, 1 Full Size or 2 Half Size Fiber modules	EC03.501003.003

8) For this application you have to order also Multi Tube Cable Divider

Street cabinet

Integration into a street cabinet

FODIS Pro® can be integrated into an outdoor street cabinet. Different types of carriers ensure that the FODIS Pro® system is compatible to the most common types of outdoor street cabinets.

FODIS Pro® - Packing information

Central Office System

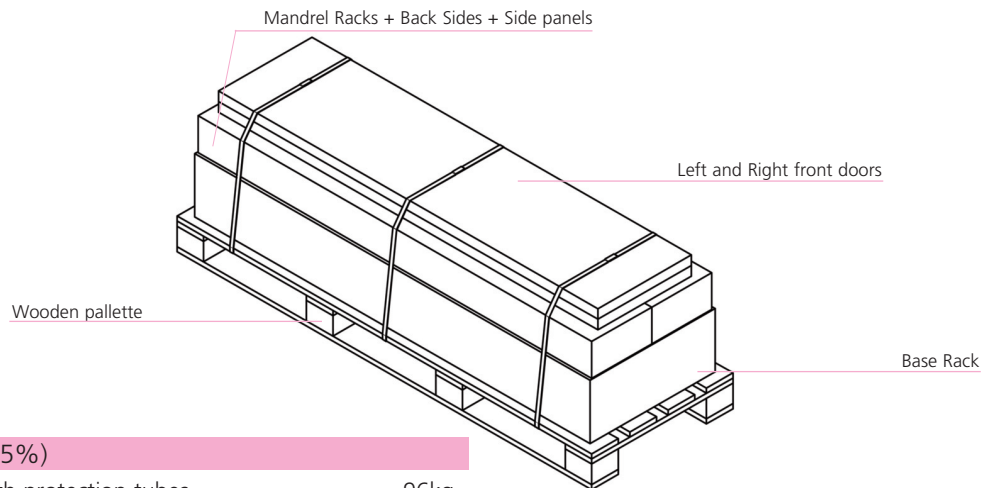
Packing information

Each FODIS Pro® rack is packing carefully for a safe transport. The main parts like base rack, front doors, mandrel and gasblokker extension racks, back sides and side panels are packing separately in carton boxes. Those are fixed with tightening strips on wooden pallette. Dimensions and weight of the package depends on the size of FODIS Pro® rack.

Each accessories for FODIS Pro® rack is packing separatly in box. Fiber modules are packing separatly in carton box. And 18 fiber modules in carton box are packing into bigger carton box.



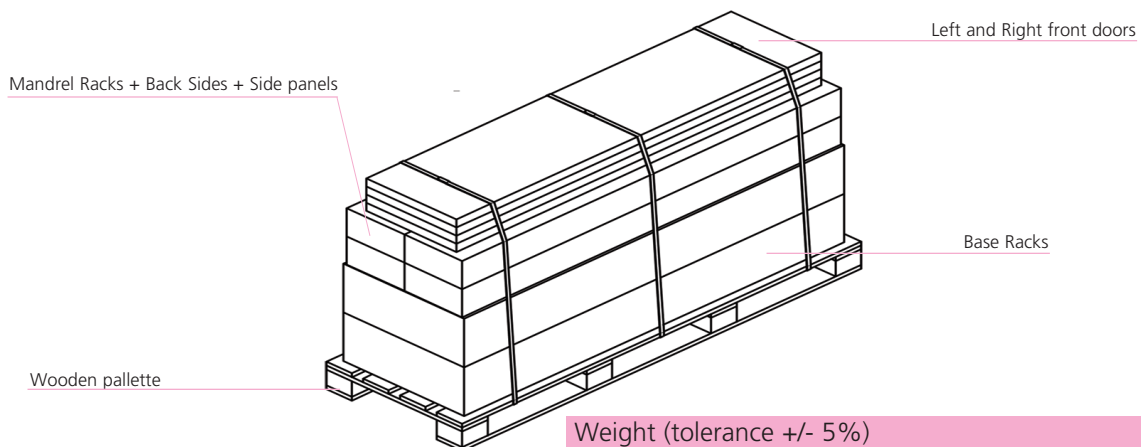
Sample packing of one FODIS Pro® Double Row Rack



Weight (tolerance +/- 5%)

Double row base rack with protection tubes		96kg
Mandrel ext. rack + back panel + side panel	29kg/set	58kg
Left/right door	20,5kg/set	41kg
Pallette		21kg
TOTAL WEIGHT		216kg

Sample packing of two pieces FODIS Pro® Double Row Racks



Weight (tolerance +/- 5%)

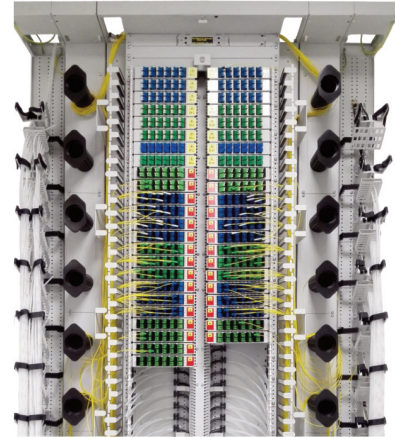
Two double row base racks with protection tubes		192kg
Mandrel ext. rack + back panel + side panel	29kg/set	116kg
Left/right door	20,5kg/set	82kg
Pallette		21kg
TOTAL WEIGHT		411kg

Product description

FODIS Pro® with Patch Assist

FODIS Pro is an Optical Distribution Frame cabinet for FTTH networks which can be expanded with Patch Assist. The system is based on "Radio-Frequency-Identification" (RFID) technology which allows the determination of positions within a patch field and their correlation with specific mechanical conditions. The network infrastructure of this technology will grow continually and significantly over the years to come, inevitably bringing about the need to restructure existing networks in order to make cost structures as well as organizational and operational expenditures of such installations fit for the future.

By using patch management system Patch Assist nothing is left to chance any more. Working procedures of network administrators and their technicians can be newly defined and structured more efficiently, which means that larger networks can be managed with fewer resources. Valuable working time can be saved or utilized for other purposes. Gone are the times when administrators had to spend time looking for wrongly patched or unused connections, when errors occurred in documentation and in the system itself, laying the grounds for almost unmanageable chaos.



Analyzer

Patch Assist Analyzer

The Analyzer is a stand-alone processing unit into which the FODIS Pro Rack is integrated and which collects all data from the individual fiber modules per the Bus System. The Analyzer analyses these data and transfers them via the network to the system server.

One analyzer connects the physical status of up to 1920 fiber ports and other external sensors (door switch, light, humidity) to the network. Analyzer is with OLED advanced user screen with high contrast and with 4 programmable software buttons. High efficient power distribution for low energy consumption and environment protection. Advanced connectivity with internal expansion slots.



Technical specifications

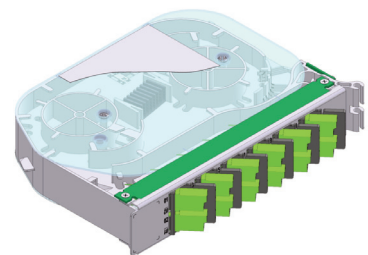
Color	RAL 7035, light grey
Material	Powder coated aluminium
Dimensions	40mm x 183mm x 132mm (HxWxD)
Weight	435 grams

Intelligent Fiber module for Patch Assist

Fiber module with RFID detectors

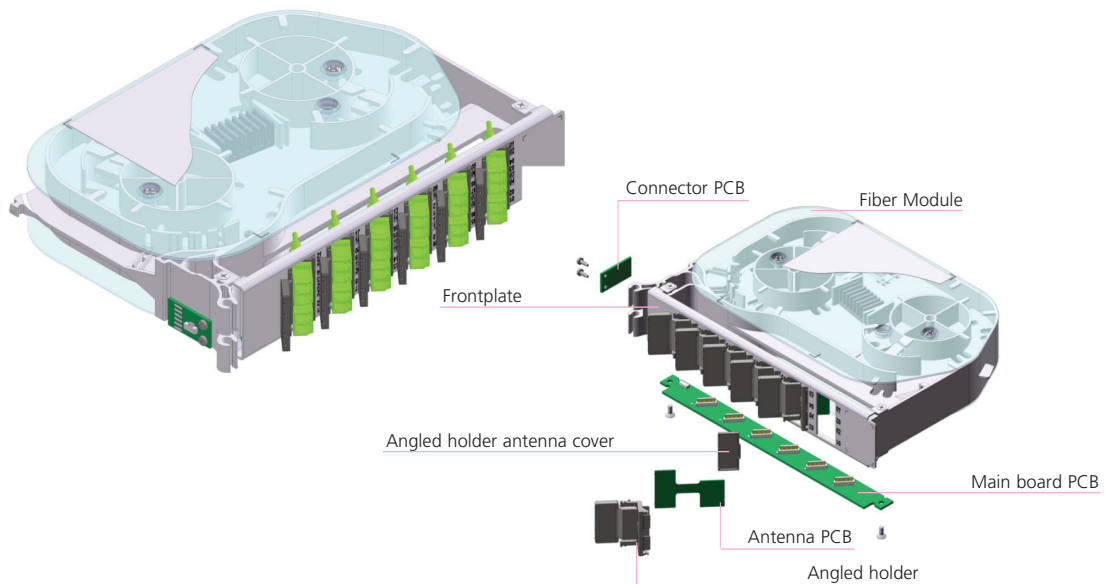
The Patch Assist extension allows you to include our SC, LC and E2000 adapter systems. The RFID detector is built into the adapter holder and is fitted with one LED for each port to show each port status and display work orders. With the RFID detector it is possible to determine positions and connections contactlessly within in a patch field and to correlate them with their specific mechanical conditions.

The fiber modules for Patch Assist are equipped with connectors and main boards.



FODIS Pro® with Patch Assist

Central Office System



Scope of supply

Each Fiber Module is equipped with:

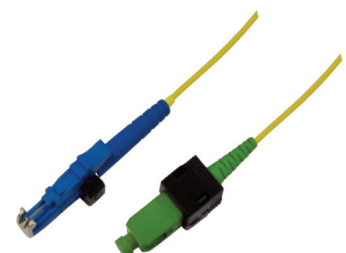
- Frontplate
- Angled holders with antenna covers
- Rubber shrink/crimp splice protection holder
- Fiber protection pipe holder
- Two transparent covers.
- Designation label
- Inserted adapters and pigtails
- Antenna PCB
- Connector PCB
- Main Board PCB

A shrink or crimp splice protection is not included in the fiber module and has to be ordered separately - please see our euroclust Cable Management catalogue.

Patch cable with RFID tag

The connectors at both cable ends contain transponders which are registered by the Patch Assist's sensor unit. The unique identification number pertaining to these tags is registered, organized by the Analyzer, transferred to the system server and entered into the database. Now it has become possible to localize the positions of both cable ends within the patch field and thus to establish a connection which is analyzed by the administration software.

If a patch cable becomes unplugged, or is connected to the wrong port, network performance can be affected, and finding the source of the problem - when there may be tens of thousands of servers and cables involved - can be very time-consuming.



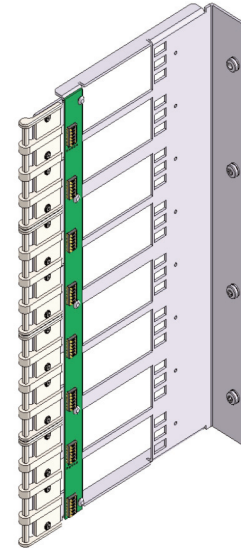
Module carrier unit for Patch Assist

Module carrier unit with current rail bus

The FODIS Pro® module carrier unit accommodates the Fiber Module and allows the rotation of the Fiber Module in the rack and the removal of Fiber Modules from the rack. The 8HU version is only possible size of module carrier unit to use in Fodis Pro with Patch Assist.

The current rail with internal PCB board bus to connect all intelligent fiber modules in rack with Analyzer.

The Bus System connects all RFID components with the analyzer, a control unit monitoring all detectors of a rack. Additionally, the bus system controller automatically recognizes the modules (hot-pluggable) and their position.



Technical specifications

Color of bracket	RAL 7035, light grey
Material of bracket	Powder coated steel
Color of hinge	Light grey
Material of hinge	ABS
Color of door latch	Black

Software

Software

As part of the Patch Assist concept we also offer the integration possibility by a special IIM software (Intelligent Infrastructure Management) to schedule, monitor and document data networks. Individual network components can be allocated to different positions via an intuitive operating concept thus allowing a logical and graphical 1:1 network view in the administration software. The data from Patch Assist can be evaluated and integrated into various processes, making it possible, for example, to set off an alerting process once a patch cable has been removed. MACs (Moves, Adds, Changes) can be scheduled and their operational sequence be controlled via the work order tool. By data integration with Patch Assist it becomes possible to provide the technician on site with a visual display of the necessary connections thanks to the LED ports. Once a patch has been established correctly, the work order is acknowledged, thus successfully eliminating any faulty patchings. Additionally, other data (such as status reports or configuration parameters) can be exchanged with active network components, allowing an efficient operation of the networking system.



Accessories

Carrier for FODIS Pro Patch Assist Analyzer

For the installation FODIS Pro Patch Assist Analyzer euroclust offer carrier into the cabinet. Carrier is designed with cut out for Analyzer.

Technical specifications

Color	RAL 7035, light grey
Material	Powder coated steel
Dimensions	44mm x 533mm x 45mm (HxWxD)
Weight	505 grams



Power supply for FODIS Pro Patch Assist Analyzer

Switching Power Supply 7.5V, 18W with EU connector pole inside, length of cable 1,8m. High efficiency and low power consumption, light weight and compact design.



FODIS Pro® with Patch Assist

Central Office System

Ordering Information

Description	ec-Article Nr.:
Analyzers	
Intelligent FODIS Pro Patch Assist Analyzer without screen, to mount into FODIS Pro carrier or 19" carrier	EC03.504010.001-AN
Intelligent FODIS Pro Patch Assist Analyzer with screen, to mount into FODIS Pro carrier or 19" carrier	EC03.504010.002-AN
Full Size Fiber Modules, SM/UPC Version	
Full Size Fiber Module (1HU) with 12 SC/UPCsx adapters + pigtailed with G.657A fiber - intelligent	EC03.5040x1.010-I
Full Size Fiber Module (1HU) with 12 E2000/UPCsx adapters + pigtailed with G.657A fiber - intelligent	EC03.5040x1.030-I
Full Size Fiber Module (1HU) with 12LC/UPCdx adapters + pigtailed with G.657A fiber - intelligent	EC03.5040x1.040-I
9) Please replace the „x“ either by 3 for left fiber tray or by 4 for right fiber tray.	
Full Size Fiber Modules, SM/APC Version	
Full Size Fiber Module (1HU) with 12 SC/APCsx adapters + pigtailed with G.657A fiber - intelligent	EC03.5040x3.010-I
Full Size Fiber Module (1HU) with 12 E2K/APCsx adapters + pigtailed with G.657A fiber - intelligent	EC03.5040x3.020-I
Full Size Fiber Module (1HU) with 12 E2000/APCsx adapters + pigtailed with G.657A fiber - intelligent	EC03.5040x3.030-I
Full Size Fiber Module (1HU) with 12LC/APCdx adapters + pigtailed with G.657A fiber - intelligent	EC03.5040x3.040-I
10) Please replace the „x“ either by 3 for left fiber tray or by 4 for right fiber tray.	
Connector rings with transponders	
SC connector ring with transponder	EC03.504010.000-2I
LC connector ring with transponder	EC03.504010.000-4I
E2000 connector ring with transponder	EC03.504010.000-7I
Module carrier unit	
Module carrier unit 8HU (for 8 Full Size Fiber Modules) with integrated current rail bus	EC03.503000.004-I
Accessories	
Power supply for FODIS Pro Patch Assist Analyzer	EC03.504010.000-PS
FODIS Pro Carrier for mounting of Patch Assist Analyzer	EC03.504010.003
19" carrier for mounting of Patch Assist Analyzer	EC03.504010.004



Systems
Optical Distribution Frame

Central Office System

FODIS Pro®