GB

3M™ BPEO Size 0 ECAM Connect

AERIAL light grey with pre-assembled PLC-Splitters

Port Configuration
of BPEO S0
w/ 1ea PLC-Splitter 1x4

Port Configuration
of BPEO S0
w/ 2ea PLC Splitter 1x4
or 1ea PLC Splitter 1x8

Delivery Content:

- ✓ 1 Splice closure, closed with sealed cable entries and the organizer to manage the fibre routing and hold the splice trays.
- ✓ 1 cover protect module.
- ✓ 2 or 3 splices trays of 5mm for 12 fusions splices or splitter holders.
- ✓ 1 red coloured plastic tool to help maintaining and managing micro-modules from incoming fibres cables.
- ✓ 1ea or 2ea PLC-Splitter 1x4, or 1ea PLC Splitter 1x8.
- ✓ 1 lid security cord.
- ✓ 1 self-gripping tape.
- ✓ Adhesive labels.
- ✓ 1 installation instructions manual.

Ex : Kit components

GB 3M™ General Safety Instruction for Optical Fibre Products

Disposal/ Recycling
This device/component/product must be recycled or disposed of at the end of its life according to local regulations.
! WARNING
[Safety instruction for products which are in installed in **manholes** or with the use of a **ladder**.]
- Planning: Plan the job with safety in mind. Walk out areas to be cabled and identify potential hazard sites.
If in doubt, consult the person in your organization responsible for safety.
- Secure the work area: Ensure that the work area is safe before, during and after the installation.
Before commencement of any work, set out cones or safety tape as appropriate where cables will be pulled.
Arrange tools so as not to create a hazard.
! CAUTION
This safety information contains instructions for personal safety and avoidance of property damage.
Appropriate transport, storage and installation are a precondition for safe and proper use of the product.
Read the whole of the information, safety instructions and installation instructions carefully before the installation of this product.
If the product is supplied with options, integrate them into the assembly at the correct point.
The installation procedures presume a general knowledge of fibre optic installation and fibre optic working procedures.
Splicing and cable preparation should be carried out according to approved local practice and your company's instructions.
Use the correct tools to avoid damage to the cable or fibres.
! WARNING
[Warning used for products which may be wall mounted]
The installer is responsible for the safe installation of the product. Use the correct fixing material.
Before installation check that the load rating of the wall is suitable for the product weight and fixing materials.
Before drilling holes, ensure that the selected area of wall has no concealed electrical conductors, gas or water pipes or other structures.
If not professionally installed, there is a risk of injury.
! CAUTION
Fibre Cable Handling / Bare Fibre Handling / **Protective Eyewear**
Optical fibre may be damaged by excessive tensile, compressive and bending forces.
Consult the manufacturer's instructions for proper handling.
Always wear safety glasses when installing and servicing optical fibre.
Safety glasses must have side shields to protect your eyes from fibre shards or splinters.
Cleaved glass fibres are sharp and may pierce the skin. Treat broken optical fibres in the same way as glass shards.
Use tweezers to collect any fibre shards and dispose of them according to your company's safety practices.
Do not touch your eyes while working with fibre optic systems until you have washed your hands.
! CAUTION
Invisible Laser Radiation Hazard
Exposure to laser radiation may cause eye damage.
To reduce the risk:
- Avoid direct exposure to laser light.
- Do not look directly into the end of a fibre, a fibre plug or the open end of a coupling using the naked eye or a direct view microscope without prior assurance that the light/source is switched off.
! CAUTION
[Safety statement for products with contain gel (e.g. index matching gel; gel filled strips, gel for sealing's).]
Equipment/ device contains gel/ fluid which might cause the following potential health effects:
- Eye contact - may cause irritation.
First Aid: Flush thoroughly with water for at least 15 minutes.
- Skin contact - repeated or prolonged skin contact may cause irritation.
First Aid: Remove contaminated clothing.
Wash exposed area with soap and water.
Get medical attention if symptoms persist.
! CAUTION
[Safety statement for the installation of heavy products]
In order to minimize **excessive muscle stress**, which could lead to minor or moderate injuries, the appropriate hoisting technology and aids should be used during assembly.
! WARNING
Pressure Leak Test
To avoid possible risk with high pressure during a leak test:
Apply no more than 0.5 bar of pressure to the closure in a controlled manner.
Higher pressure may lead to mechanical damage, cracks or fragmentation which may injure the installer or bystanders.
Wear safety glasses during the test.
! WARNING
This product is not designed and not certified to be used in **explosive areas**.
Using this product in explosive areas might cause serious injury or death caused by explosion.
Never use / install this product in explosive areas.

Summary

1. Recommended installation tools

Please use the appropriate tools recommended by the cable manufacturer to prepare the cables.
Two flat end screwdriver (recommended width: 4 and 8mm blade) and one Torx™ 20 screwdriver.
One flat nose or multi-grip pliers.
Additionally (not included):

-For wall mounting or other fixing: suitable dowels and/or screws.
-For pole mounting: steel band or screws.

2. Application

The enclosure is designed to:
Protect and manage bare fibres, micro-modules in organizers and contains splice and splitter trays.
Can be installed on façade or pole applications.

3. Fixing

Mounting bracket is integrated to the base of the splice enclosure.

Wall mount applications:

Depending on the field conditions it is recommended to mark one of the centre U-holes as first fixing point.
Drill the hole and tighten fixing screw slightly.
Bring closure in balanced horizontal position and mark second fixing hole at the open U-hole at distance of 140mm (Fig.1).
Slide closure down over second screw and tighten both screws.
Use 8mm non conical screws.
If needed, the additional fixing holes can be used.

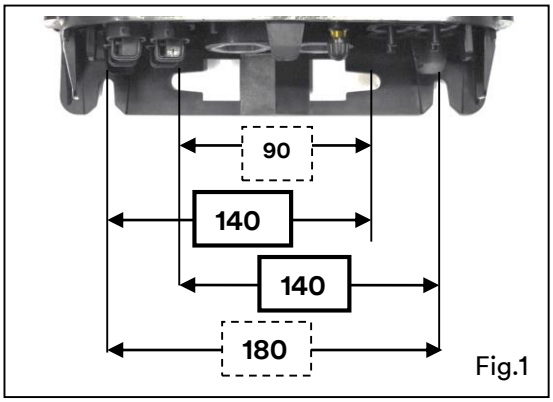
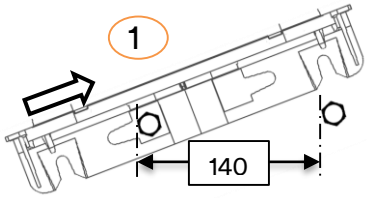
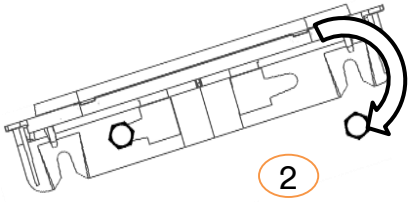


Fig.1

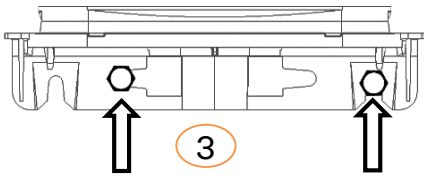
- Recommended installation on façades (Fig.2-3-4).



Install both bolt (not completely tightened), insert and slide over the first screw Fig.2



Swivel until stopping on the second screw
Fig.3



Tighten both screws
Fig.4

- Recommended installation on pole (Fig.5). Attachment with metal band directly on pole or standard omega bracket.

Fig.5

4. Opening

Extract the cover by disengaging the latches (1) and then by pushing the cover upward (2) (Fig.6-7-8).

Disengage (1) then push (2) Fig.6

Detail(1)Fig.7


Extract the cover (pull) Fig.8

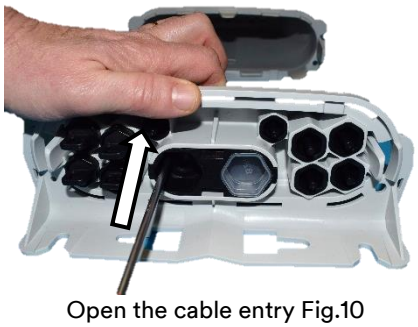
5. Feeder Cable Preparation

5.1 Use of single ECAM S12 in the dual entry port

The dual entry port can also be used with two single ECAM S12.

Remove the protective cap (Fig.9).
Open the cable entry by knocking briefly on the screwdriver (Fig.10).
Remove all plastic flash from the punch out area (use knife or abrasives) before inserting the ECAM cable entry.
The entry port must be perfectly clean before inserting the ECAM S12.
For the preparation of the single cable entry ECAM S12, please refer to the relevant instruction.

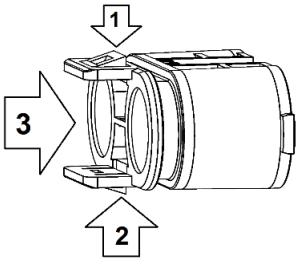

Remove the protective cap Fig.9


Open the cable entry Fig.10

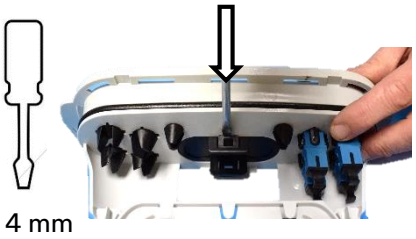
5.2 Installation of the uncut cable (mid span) entry ECAM D18

Tilt the splicing trays in vertical position (Fig.11).
Remove the port blanking plug by releasing its 2 latches using (Fig.12) a flat screwdriver (Fig.13,14).
Once released push the blanking plug with your thumb (Fig.15) and remove completely (Fig.16).
Implement double ECAM D18 (see § 6).
For the preparation of the mid span double cable entry ECAM D18,
please refer to the instruction manual delivered with it.

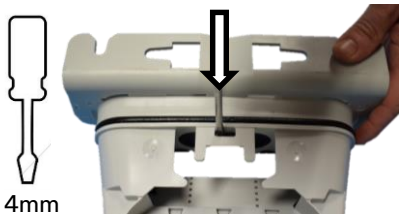
Trays Fig.11



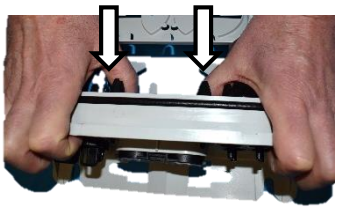
Disengage the first latch (1), push and disengage the other latch (2) to extract the plug.(3) Fig.12



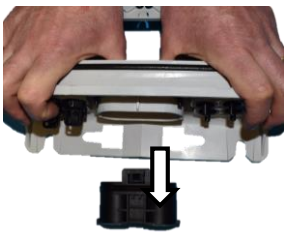
Disengage latch (2) Fig.13



Disengage latch (1) Fig.14



Push Fig.15

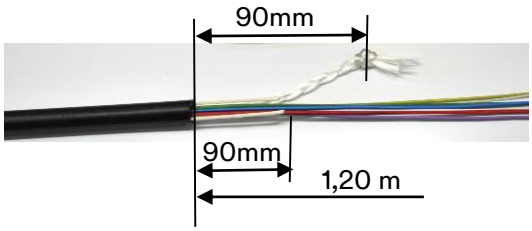


Extract the plug Fig.16

6. Installation / Coiling of the slack of micro-modules

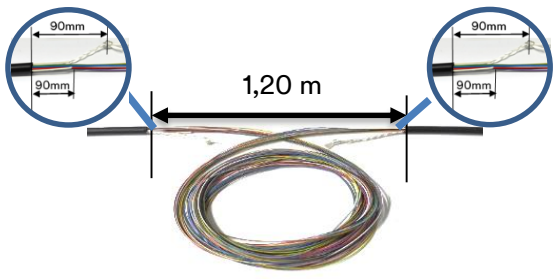
6.1 Cable preparation (Reminder)

Single entry:
Remove the cable sheath over 1,20 m (Fig.17).



Single entry - e.g.: ECAM S9,5 Fig.17

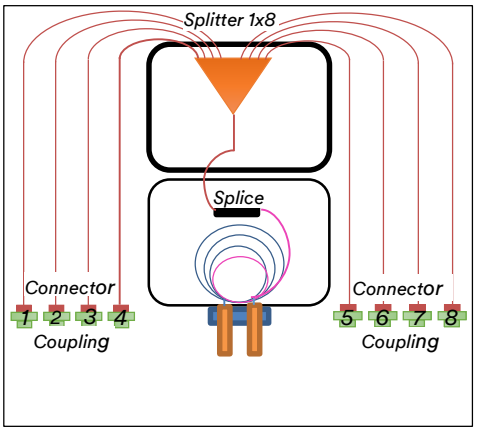
Double entry:
Remove the cable sheath over 1,20 m (Fig.18).



Double entry - e.g.: ECAM D18 Fig.18

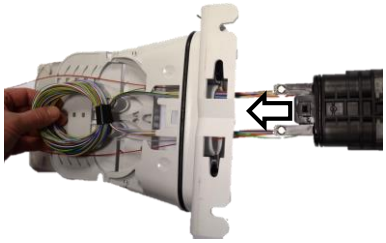
6.2 Installation / Coiling of the slack of micro-modules

Wiring routing



Insert the loop of the bundle through the opening of the dual entry port (Fig.19,20).
Push the double ECAM into the dual port until it is latched into the BPEO base (Fig.21).

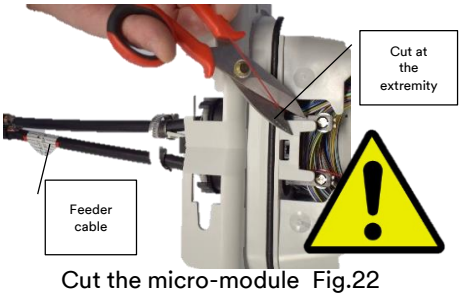
High capacity ≥ 96 Fibres
Fig.19



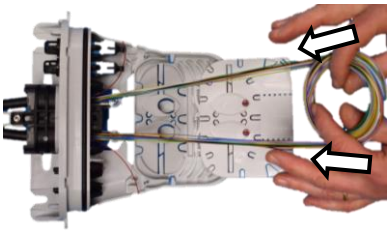
Insert the slack of micro-modules Fig.20

Clipping the double entry Fig.21

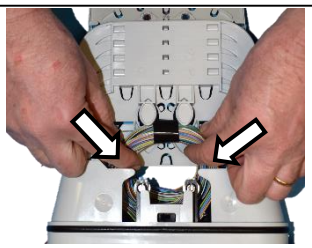
Cut the used micro-modules at one extremity, which is usually the opposite side of the feeder cable (Fig.22).
Coil the uncut fibres (Fig.23) and maintain the bundle at the proper location, behind the black tabs (Fig.24).
Secure the bundle of uncut fibres by using the supplied piece of Scotch flex™Tie Wrap code 89839
(cut pieces) (Fig.25,26).



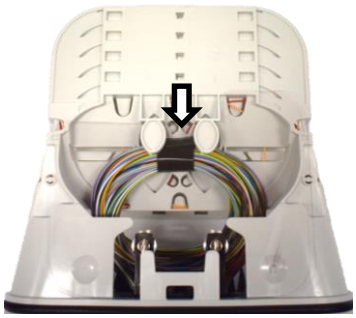
Cut the micro-module Fig.22



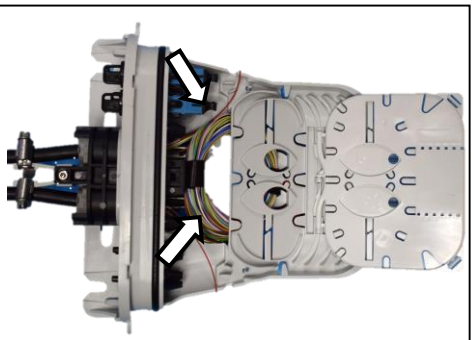
Coil the micro-modules Fig.23



Store the micro-modules Fig.24



3M ™ Scotch Flex Fig.25

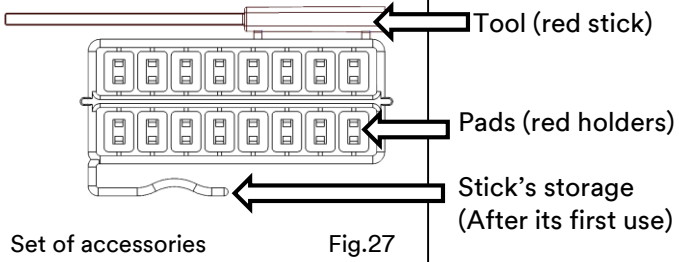


Coiling of the bundle Fig.26

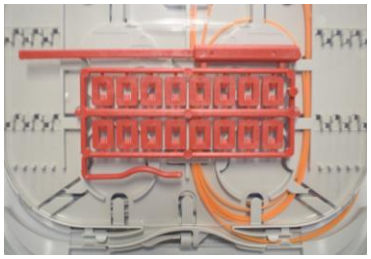
7. Fibres routing

7.1 Description of the supplied accessories

Fibres are maintained along their way in the organizer by red coloured plastic holders which must be installed on plastic pins, located at particular areas of the organizer. These red holders should be placed by using the red coloured plastic stick (Fig.27).
When not used, the red set must be clipped on the clear cover of the last installed splicing tray (Fig.28).



Set of accessories Fig.27


Set of accessories on last tray Fig.28

7.2 Holding and routing the micro-modules

Pay attention to the position of the red holders on guiding pins (Fig.29).
Position and push the holder, using the stick, on the guiding pin in order to maintain the micro-modules in place.
The ideal configuration, when possible, is to place the same amount of micro-modules on each side of the pin, under the red holder (Fig.30).

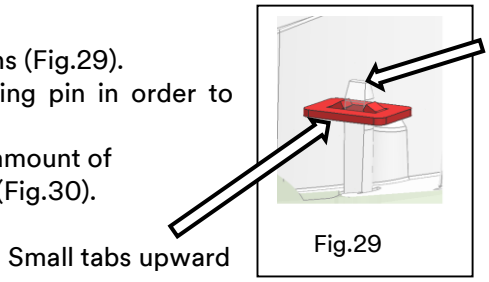


Fig.29

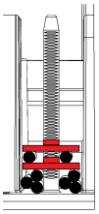
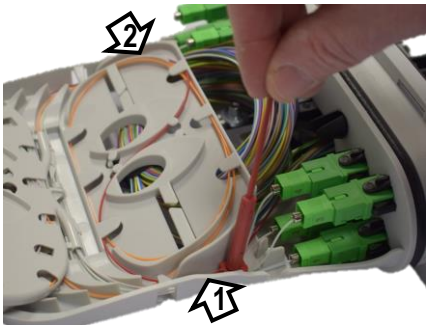


Fig.30

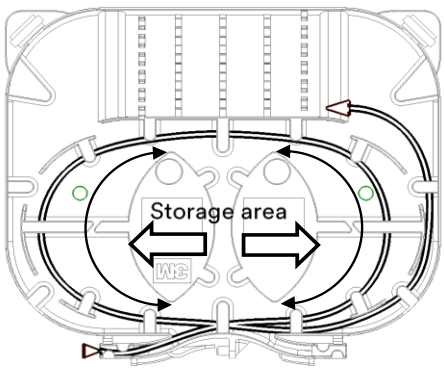
To make the fibres entering into a tray, two paths are possible, depending on where they come from and where they go.
Direct path (1) or opposite patch (2) (Fig.31).



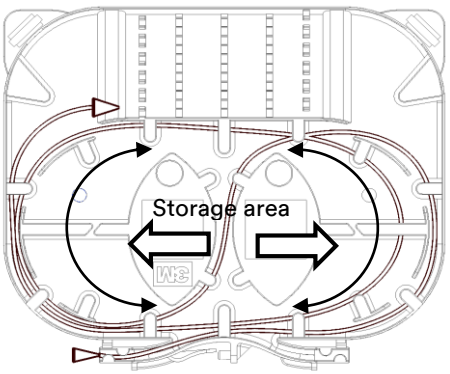
Using the plate Fig.31

7.3 Pathway of the fibres in the trays

The fibres can be distributed in the trays from the right or left of the organizer, according to the recommendations of the network engineering (Fig.32,33).



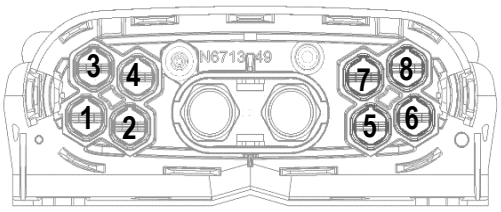
Input & output at opposite side
Fig.32



Input & output at same side
Fig.33

7.4 Management of the pigtails in the closure

Recommended order for the use of the ECAM Connect ports (Fig.34).



BPEO S0 ECAM Connect **Light Grey** Fig.34

Perform the fusion splices as per your company's practices.

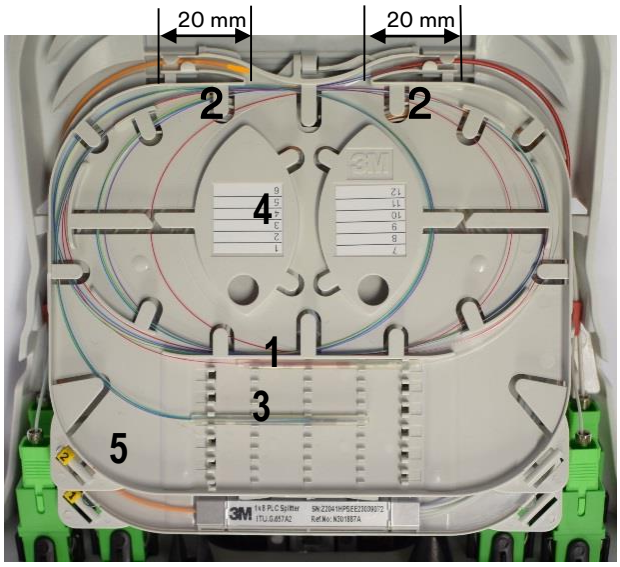
Install the heat shrink protection sleeves of the fusion splices in staggered rows in the tray (Fig.35 – mark 1).

We recommend to insert 20mm of the external sheath of the micro-modules in the tray (Fig.35 -mark 2).

The unused fibres from the micro-modules can be placed in another splice protection sleeve (Fig.35– mark 3).

Stick labels at the centre of the tray for an easy identification (Fig.35 – mark 4).

An additional identification of the trays can be done by adding flags on their ears (Fig.35 – mark 5).



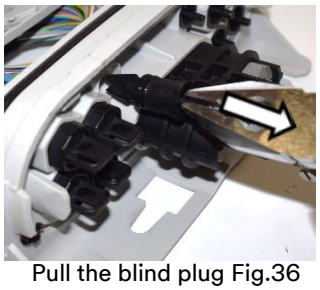
Splices placed in staggered rows and Labels and Identification Fig.35

8. Use of ECAM Connect Drop Cables and ECAM Connect Field Assembly Kits

Please refer to the relevant instruction manuals, which are delivered with these products.

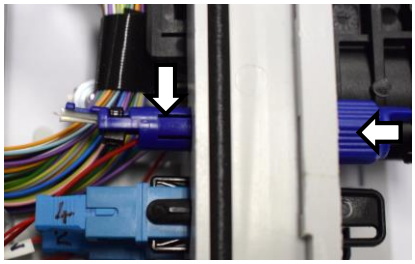
9. Use of ECAM S7 (Derivation)

Grasp the S7 blind plug with universal pliers or similar and then pull (Fig.36).
The ports of the closure should be perfectly clean before insertion of the prepared cable entry S7.
Prepare the required single cable entry ECAM S7 please refer the instruction manual delivered with the ECAM kits.
Insert the prepared ECAM and cable assembly inside the port (Fig.37). When the ECAM has been sufficiently pushed, it will be automatically latched (Fig.38).



Pull the blind plug Fig.36

Insert the ECAM Fig.37



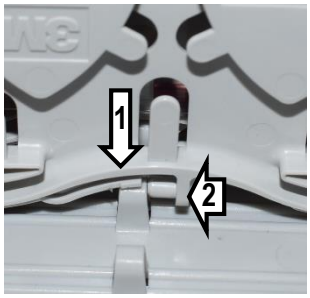
Locking the ECAM Fig.38

10. Other functions

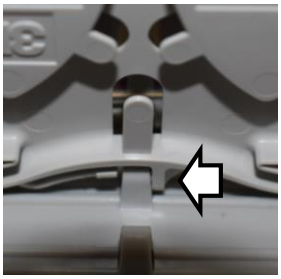
10.1 Assembly / disassembly of a splicing tray

Position the tray vertically in front of the hinge support and push it downward (Fig.39,40), then insert it into the hinge by applying a lateral movement (Fig.41).
To removing the splice tray, lift up the plastic lever with a tool (1) and pull out the tray (2)(3) (Fig.42).

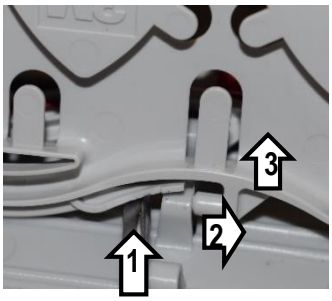
Position Fig.39



Push downward Fig.40



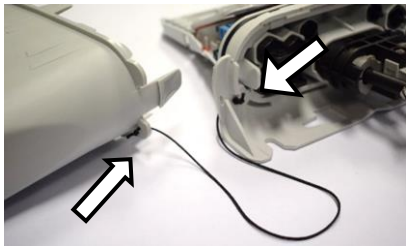
Insert Fig.41



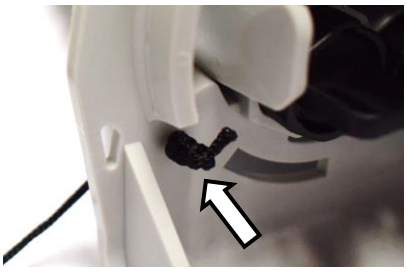
Disassembly Fig.42

10.2 Securing the cover

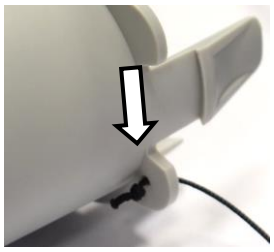
Insert the cord into the dedicated holes on the cover and base, then make nodes (Fig.43,44,45).



Securing the cover Fig.43



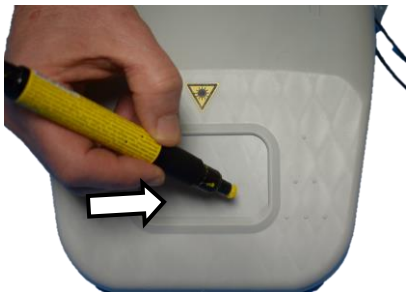
Detail for base Fig.44



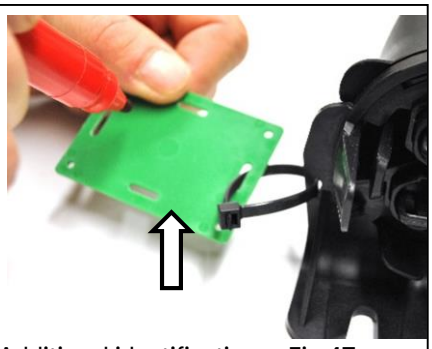
Detail for cover Fig.45

10.3 Identification of the closure

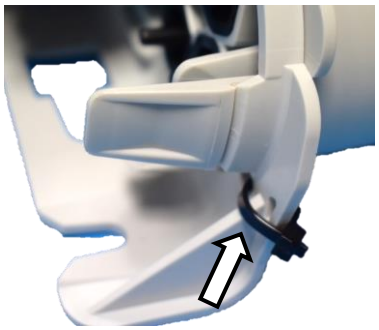
An area is dedicated to the marking on the cover for an easy and quick identification of the closure (Fig.46).
The base of the closure provides the possibility to install an additional identification plate (right or left) (Fig.47).
It is also possible to secure the opening of the closure by the use of a simple plastic tie (Fig.48).



Marking area Fig.46



Additional identification Fig.47



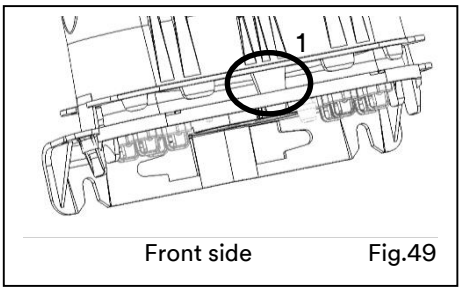
Security Fig.48

11. Closing

Check that all components are properly installed and secured.
Check that no fibres or micro-structure tubes may be trapped and damaged between any parts while closing the closure.
Check that no stress and no tension is applied on any of the fibres.

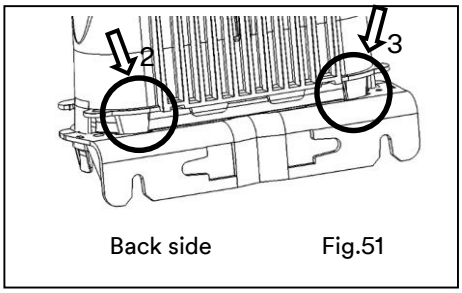
Note: Check that the gasket of the base is perfectly clean and well positioned and clean and check that the water tightness area in the cover is also perfectly clean.

Position the cover over the base of the closure.
Push down the cover in order to start engaging its side latches in the base.
Check, that the guiding pins are properly inside of their corresponding slots in front (Fig.49,50) and the rear (Fig.51,52) of the closure.
Push the dome of the closure down in order to clip the latches completely (Fig.53,54).

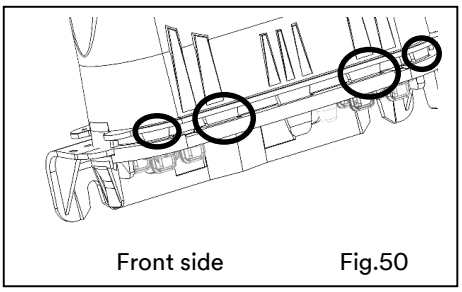


Front side Fig.49

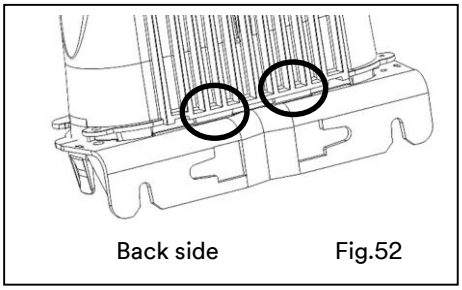
Insertion of the long guiding parts.

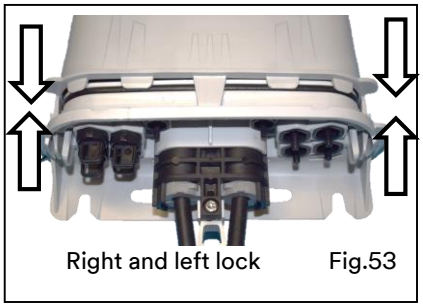


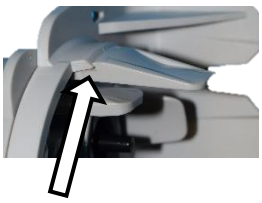
Back side Fig.51


Front side Fig.50

Insertion of the short guiding parts.


Back side Fig.52


Right and left lock Fig.53


Check Fig.54

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