

# Ordering Guide

for FIST-GCOG2 product range



# Ordering Guide of the Generic Gel Sealed Closure Organizer (FIST-GCOG2)

---

This document provides assistance with the selection of FIST Generic Gel Sealed Closure Organizers (FIST-GCOG2) for use in FIST applications. It includes the following sections:

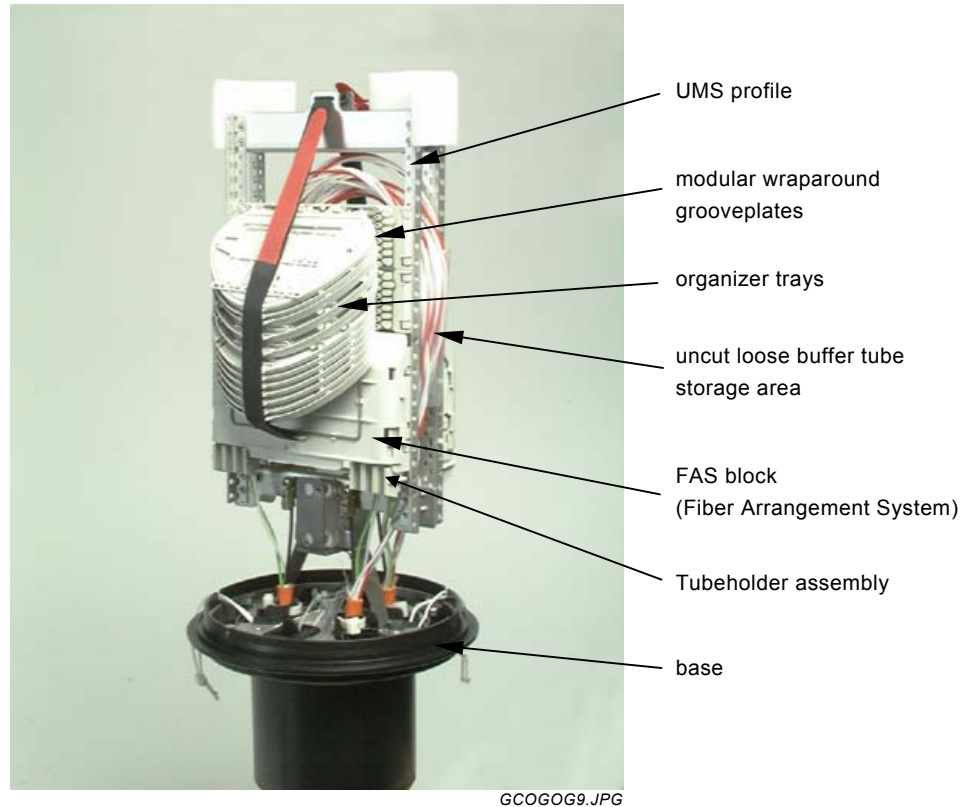
<b>1 Product description</b>	<b>2</b>
<b>2 Ordering information</b>	<b>3</b>
2.1 How to order this product	3
2.2 Application kits for loose tube cable	4
2.3 Closure name string	8
2.4 Accessories	8
2.5 Installation tools	9
<b>3 Product guide</b>	<b>10</b>
3.1 Closure description	10
3.2 Closure dimensions	13
3.3 Closure capacity	14
3.4 Accessories	15

## 1 Product description

The generic gel closure FIST-GCOG2 is the environmentally sealed, fully mechanical enclosure for the fiber management system that provides the functions of splicing and passive component integration in the external network.

The product can be tailored to almost any required configuration by adding splicing and/or passive device sub-assemblies.

The FIST-GCOG2 has provision for all cable termination and sealing requirements.



The closure is a single-ended design made of a thermoplastic material.

The base and dome are sealed with a clamp and an O-ring system.

The UMS (Universal Mounting System) profiles provide the foundation for mounting combinations of SOSA2 (Splicing Only Sub-Assembly) and/or SASA2 (Splitter Array Sub-Assembly) modules, which consist of a modular groove plate and trays.

Uncut loose buffer tube storage space is available between the two UMS profiles; for central core or slotted core applications, storage baskets are available.

Six round cable ports are provided in a wrap-around block with pre-installed gel profile for cable sealing. This block can be opened and closed repeatedly without the need to remove or replace the gel. The gel block allows bringing in cables gradually without disturbing already installed cables.



## 2 Ordering information

---

### 2.1 How to order this product

#### **Order one of the application kits**

Some application kits have been identified for an easy product selection and ordering. These kits contain all necessary accessories for a certain application and fiber count.

The information can be found in paragraph 2.2.

#### **Order the closure and its accessories separately**

For maximum flexibility, the closure and the accessories can be ordered as separate items. The information can be found in paragraphs 2.3 and 2.4.

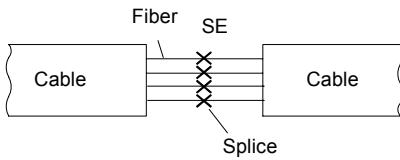
This is recommended when:

- other splice/fiber capacities are required
- the required configuration is not covered by the application kits (e.g. ANT spliceholders,....)
- ribbon fiber is used
- when the cable configuration is not loose tube
- a mix of cable configurations (e.g. single fiber and Ribbon8) has to be spliced in the same closure
- other quantities and types of cable seal kits are necessary
- an extension of an application kit or installed closure is needed

## 2.2 Application kits for loose tube cable

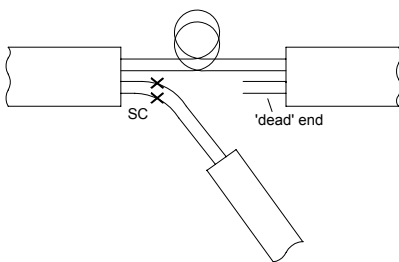
### 2.2.1 Network functions

Application kits for single fiber have been identified for the following network functions:



#### Track joint

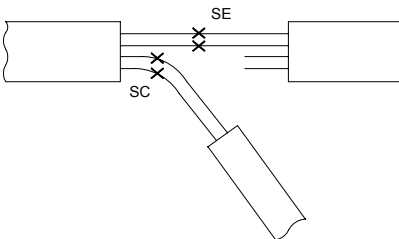
Two cable lengths are spliced onto each other. The joint is not a flexibility point in the network; typically single element trays are used. This type of joint is used when at the end of the cable spool or when an outdoor cable has to be spliced to an indoor cable (cable chamber joint).



#### Spur joint type 1

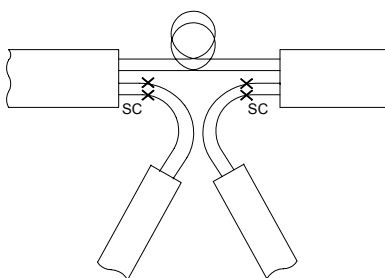
Branch a number of fibers onto another cable; the main cable continues without being cut and spliced. The fibers of the main cable are stored as tubes.

Single circuit trays are used since this is a flexibility point in the network.



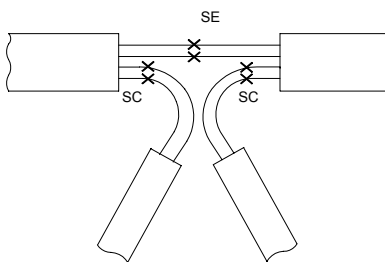
#### Spur joint type 2

Branch a number of fibers onto another cable; the main cable continues and is spliced as well. The main cable continues via single element trays.



#### Spur joint type 3

Branch off a secondary ring from a main ring; the main cable continues without being cut and spliced. The fibers of the main cable are stored as tubes.

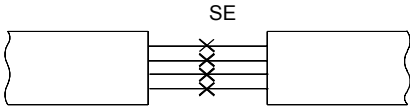


#### Spur joint type 4

Branch off a secondary ring from a main ring; the main cable continues via single element trays.

### 2.2.2 Track joint

Order code: **FIST-GCOG2-TJ-SFKITXX**



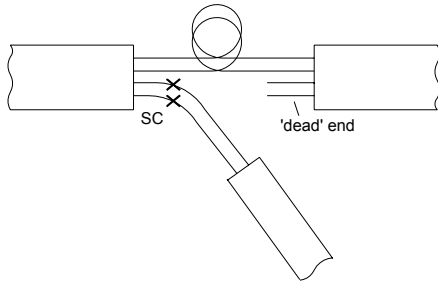
Fiber organization	Cable fiber count						
	24F	48F	72F	96F	144F	192F	288F
Single fiber loose tube	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>		
8 fibers per tube/tray	(BC6)	(BC6)	(BC6)	(BC6)	(BC6)		
Single fiber loose tube	<b>06</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>10</b>	<b>11</b>	<b>12</b>
12 fibers per tube/tray	(BC6)	(BC6)	(BC6)	(BC6)	(BC6)	(BC6)	(BD6)

**Kit content** (detailed in Addendum 1)

- Closure type as indicated in the table, without ground feedthrough and flash test valve
- SOSA2's with Single Element trays for fiber counts indicated in the table
- Heat shrinkable splice protectors (SMOUV-1120-02 with a length of 45 mm)
- 4 plugs for unused cable ports
- 2 cable retention devices
- Universal strength member termination kit for 2 cables

### 2.2.3 Spur joint type 1

Order code: **FIST-GCOG2-SJ1-SFKITXX**



**Note** Kits are defined assuming that 50% of the fibers are spliced to the branch.

Example KIT04 contains 24 single circuit trays (for 48 fibers, which is 50% of the indicated fiber count).

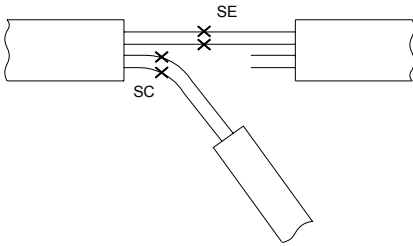
Fiber organization	Cable fiber count						
	24F	48F	72F	96F	144F	192F	288F
Single fiber loose tube	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	<b>07</b>
2 fibers per tray	(BC6)	(BC6)	(BC6)	(BC6)	(BC6)	(BD6)	(BD6)

**Kit content** (detailed in Addendum 1)

- Closure type as indicated in the table, without ground feed-through and flash test valve
- SOSA2's with Single circuit trays for 50% of the fiber count indicated in the table.
- Heat-shrinkable splice protectors (SMOUV-1120-02 with a length of 45 mm)
- 3 plugs for unused cable ports
- 3 cable retention devices
- Universal strength member termination kit for 3 cables

Note : the tube diameter of the loop is limited to 2.8 mm for kits 05, 06 and 07.

### 2.2.4 Spur joint type 2



Order code: **FIST-GCOG2-SJ2-SFKITXX**

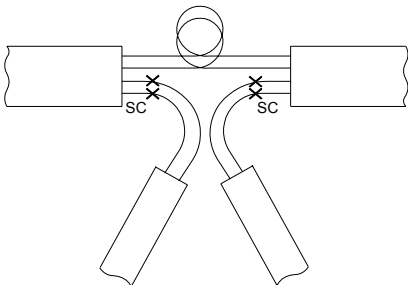
**Note** Kits are defined assuming that 50% of the fibers are spliced to the branch.  
Example KIT09 contains 24 single circuit trays (for 48 fibers = 50% of the indicated fiber count) and 4 single element trays (for 48 fibers = 50% of the indicated fiber count)

Fiber organization	Cable fiber count						
	24F	48F	72F	96F	144F	192F	288F
Single fiber loose tube	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>		
8 fibers per tray/tube	(BC6)	(BC6)	(BC6)	(BC6)	(BD6)		
Single fiber loose tube	<b>06</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>10</b>	<b>11</b>	<b>12</b>
12 fibers per tray/tube	(BC6)	(BC6)	(BC6)	(BC6)	(BD6)	(BD6)	(BE6)

#### Kit content (detailed in Addendum 1)

- Closure type as indicated in the table, without ground feed-through and flash test valve
- SOSA2's with SC trays for 50% of the fiber count indicated in the table.
- SOSA2's with SE trays for 50% of the fiber count indicated in the table.
- Heat-shrinkable splice protectors (SMOUV-1120-02 with a length of 45 mm)
- 3 plugs for unused cable ports
- 3 cable retention devices
- Universal strength member termination kit for 3 cables

### 2.2.5 Spur joint type 3



Order code: **FIST-GCOG2-SJ3-SFKITXX**

**Note** Kits are defined assuming that 50% of the fibers are spliced to the branch.  
Example KIT04 contains 2x 24 single circuit trays (for 2x 48 fibers, which is 50% of the indicated fiber count).

Fiber organization	Cable fiber count						
	24F	48F	72F	96F	144F	192F	288F
Single fiber loose tube	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	
2 fibers per tray	(BC6)	(BC6)	(BC6)	(BD6)	(BD6)	(BE6)	

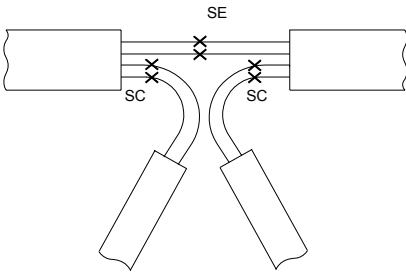
#### Kit content (detailed in Addendum 1)

- Closure type as indicated in the table, without ground feed-through and flash test valve
- SOSA2's with SC trays for fiber count indicated in the table.
- Heat-shrinkable splice protectors (SMOUV-1120-02 with a length of 45 mm)
- 2 plugs for unused cable ports
- 4 cable retention devices
- Universal strength member termination kit for 4 cables

### 2.2.6 Spur joint type 4

Order code: **FIST-GCOG2-SJ4-SFKITXX**

**Note** Kits are defined assuming that 50% of the fibers are spliced to the branch.  
Example KIT09 contains 2x 24 single circuit trays (for 2x 48 fibers = 50% of the indicated fiber count) and 4 single element trays (for 48 fibers = 50% of the indicated fiber count).



Fiber organization	Cable fiber count						
	24F	48F	72F	96F	144F	192F	288F
Single fiber loose tube	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>		
8 fibers per tray/tube	(BC6)	(BC6)	(BD6)	(BD6)	(BE6)		
Single fiber loose tube	<b>06</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>10</b>		
12 fibers per tray/tube	(BC6)	(BC6)	(BD6)	(BD6)	(BE6)		

#### Kit content (detailed in Addendum 1)

- Closure type as indicated in the table, without ground feed-through and flash test valve
- SOSA2's with SC trays for the fiber count indicated in the table.
- SOSA2's with SE trays for 50% of the fiber count indicated in the table.
- Heat-shrinkable splice protectors (SMOUV-1120-02 with a length of 45 mm)
- 2 plugs for unused cable ports
- 4 cable retention devices
- Universal strength member termination kit for 4 cables



## 2.3 Closure name string

Refer to section 3.0. for full product descriptions.

### FIST-GCOG2-XXX-X X

#### Closure type

<b>BC6</b>	543 mm long with two 20 units UMS
<b>BD6</b>	621 mm long with two 36 units UMS
<b>BE6</b>	750 mm long with two 52 units UMS

#### Ground feed-through

<b>G</b>	Pre-mounted ground feed-through
<b>N</b>	No ground feed-through

#### Flash test point

<b>V</b>	Pre-mounted flash test point in dome
<b>N</b>	No flash test valve

#### Standard kit content

- Dome
- Clamp
- O-ring
- Base including gel block with trigger
- 4 plugs
- 2 cable retention devices
- 2 strength member fixations
- Silica gel
- Allen Key
- UMS profiles
- 2x FAS block (including 2 tubeholders each, cap and wedge) - pre-installed
- 2 hook and loop fastener
- 2 traylids (including fiber guiding pin and tube holder retainers)
- 4 plastic bags for uncut loose tube storage
- Installation Instructions



## 2.4 Accessories

### 2.4.1 Cable attachment accessories

Name	Qty/Pk	Description
FIST-GCOG-CA	1 pc	Cable retention device
FIST-GCOG-CA-10	10 pc	Cable retention device
FACC-UCT-01	1 pc	Strength member fixation kit
FACC-UCT-10	10 pc	Strength member fixation kit

#### 2.4.2 Mounting kits & work stands

Consult the MOBRA ordering guide for a schematic overview.

Name	Qty/Pk	Description
FIST-GCOG-MOBRA	1 pc	Closure support bracket to be used in combination with pole or wall mounting set to mount the closure.
FIST-GCOG-POLE-KIT	1 pc	Pole mounting set to be used in combination with FIST-GCOG-MOBRA
FIST-GCOG-WALL-KIT	1 pc	Wall mounting set (2 wood screws, 2 dowels, 2 washers) to be used in combination with FIST-GCOG-MOBRA
FIST-GCOG-L-BRACKET	1 pc	L-brackets to attach FIST-GCOG-MOBRA to the table
FIST-GCOG-CCLAMP	1 pc	Set of table mounting clamps to be used in combination with FIST-GCOG-MOBRA for closure fixation during installation.
FIST-GCOG-CAPH	1 pc	Bracket to be used in combination with a clamp (FIST-GCOG-CCLAMP) for closure fixation during installation.

#### 2.4.3 Organizer trays

See the FIST-SOSA2 and FIST-SASA2 ordering guide.

#### 2.4.4 Storage baskets

Name	Qty/Pk	Description
FIST-BASKET-A	1 pc	Storage basket for uncut fibers of a loose tube ribbon, central core or slotted core cable (size BD6)
FIST-BASKET-B	1 pc	Storage basket for uncut fibers of a loose tube ribbon, central core or slotted core cable (size BE6)

#### 2.4.5 Installation kit components

Name	Qty/Pk	Description
FISTV-E7100-1005	10x100 g	Silicagel for inside the closure, to be replaced after each re-entry

### 2.5 Installation tools

Refer to FIST-INSTAL-KIT ordering guide.

## 3 Product guide

---

### 3.1 Closure description

#### Dome

The dome is made from a polymer, ribbed for extra strength.



GC2OG010.JPG

#### Base

The base houses the gel block and the foundation for the UMS profiles.



GCOG017.JPG

#### Gel block with trigger

Six round cable ports are provided in a wraparound block with pre-installed gel profile. This block has to be placed in the base so that the gel can be compressed by turning the trigger. The compressed gel provides the cable sealing.



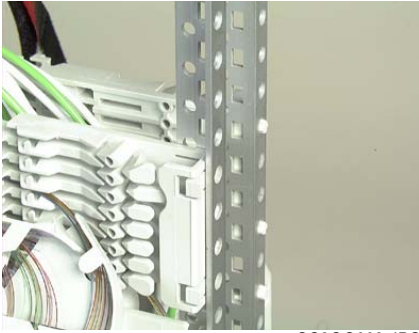
GCOG2OG2.JPG

#### Dome to base seal

This seal consists of a mechanical clamp and a rubber O-ring.



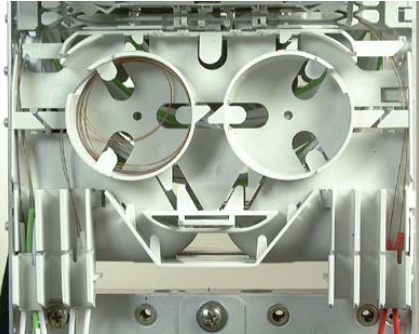
GC2OG009.JPG



GC2OG002.JPG

#### UMS (Universal Mounting System) profiles

On the 2 UMS profiles, the wraparound groove plates can be clicked. The capacity of the UMS profile is defined by the closure size. Groove plates are available for single fiber, R4/8 and R12 and in different sizes. See SOSA2 ordering guide for more details.



GC2OG003.JPG

#### FAS block

The window between the two FAS blocks is used to route fibers from one side of the FAS block to the other. Tubeholders mounted on each side of the FAS block hold the loose tubes or spiral tubes in position.



GCO2OG29.JPG

#### FAS block cap

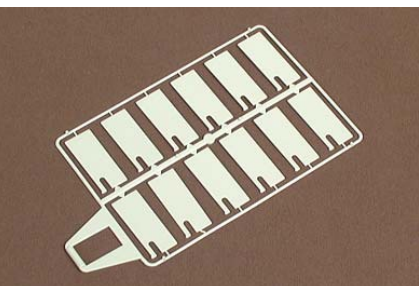
A FAS cap protects mechanically the fibers on the FAS block. Provision has been made to store the tray wedge and the tray lid.



GC2OG004.JPG

#### Tube holder

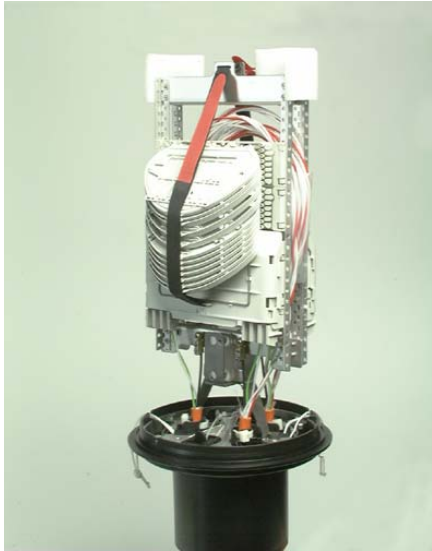
On every side of the FAS block, tube holders are provided to keep tubes coming from the cables in place. Twelve cavities provide a neat organization of the tubes. The total capacity depends on the tube diameter (see paragraph 4.3.1).



GCO2OG28.JPG

#### Retainers for tube holders

The retainers have to be slid into the tube holders. They are delivered in a set of 12. Spare retainers can be stored on the tray lid.



GCOGOG09.JPG

**Expressed fiber storage area**

The area between the UMS profiles is used to store uncut loose buffer tubes. For central core and slotted core cable, storage baskets provide the necessary protection of the fibers.



GCOG2OG4.JPG

**Cable strength member fixation point**

The central strength member of each individual cable can be attached at this point.



GCOG2OG7.JPG

**Ground feed-through (optional)**

A sealed grounding feed-through bolt can be pre-mounted in the base to connect metallic components to an external ground.



GCOCAT10.JPG

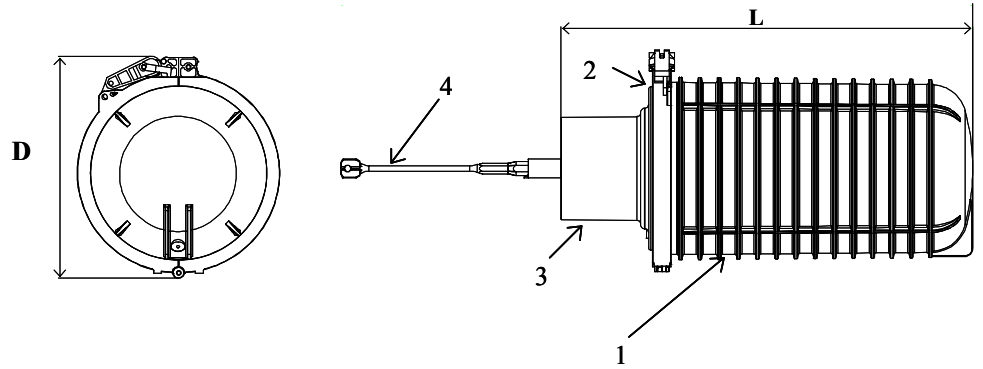
**Flash test valve (optional)**

This is pre-mounted in the dome if pressure access is required.

### 3.2 Closure dimensions

**Drawing key:**

- 1 Dome
- 2 Clamp
- 3 Base
- 4 Trigger



Dimensions in mm	Closure type		
	BC6	BD6	BE6
L	543	621	750
D	247	247	247
D with clamp	291	291	291

### 3.3 Closure capacity

#### 3.3.1 General

	Closure type		
	BC6	BD6	BE6
<b>UMS profile data</b>			
UMS profile length (units) <sup>(1)</sup>			
- Loose tube and central core cable	2 x 20	2 x 36	2 x 52
- Slotted core cable	2 x 20	2 x 32	2 x 48
<b>FAS Block data</b>			
Number of tube holders	4	4	4
Cavities per tube holder	12	12	12
Capacity per tube holder			
- FOPT-SF (1.8 mm)	48	48	48
- tubes of 2.2 mm	48	48	48
- tubes of 2.9 mm	36	36	36
- tubes of 3.1 mm	24	24	24
- tubes of 5.0 mm	12	12	12
- Spiral tube of 6.8 mm	6	6	6
- Spiral tube of 8.8 mm	3	3	3
Maximum number of fibers through the window in between the 2 FAS plates <sup>(2)</sup>			
- Single fiber	1000	1000	1000
- R4	120	120	120
- R8	64	64	64
- R12	48	48	48
<b>Cable looping capacity</b>			
Single fiber loose tube			
Ø 2.6 mm	7 tubes (3.6 m)	10 tubes (3.8 m)	11 tubes (4 m)
Ø 3.1 mm	4 tubes (3.6 m)	6 tubes (3.8 m)	8 tubes (4 m)
Stored in basket			
- R4 (ribbons)	-	25 + (5.3 m)	25 + (5.9m)
- R8 (ribbons)	-	15 + (5.3 m)	24 + (5.9m)
- R12 (ribbons)	-	12 + (5.3 m)	12 + (5.9m)
<b>Cable port capacity</b>			
Six round ports for 1 cable each	Max. 25 mm Min. 9 mm	Max. 25 mm Min. 9 mm	Max. 25 mm Min. 9 mm

<sup>(1)</sup> The number indicated is the space that can be occupied by trays. A Single circuit tray occupies 1 unit; a Single Element or R4/8 tray occupies 2 units; a R12 tray needs 3 units. One UMS profile length unit equals 6 mm.

<sup>(2)</sup> Fibers must be evenly spread (entering both from left and right).

### 3.3.2 Splicing cable to cable - primary coated fibers - loose tube

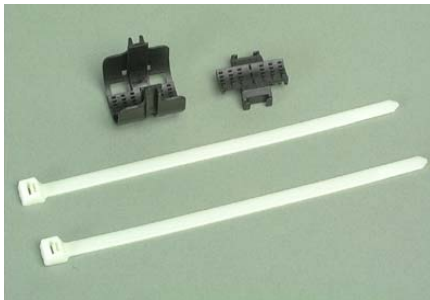
	Closure type					
	BC6		BD6		BE6	
	Fibers	Trays	Fibers	Trays	Fibers	Trays
Single circuit splicing capacity						
– 2 primary coated fibers - SC	80	40	144	72	208	104
Single element splicing capacity						
– 8 primary coated fibers - SE	160	20	288	36	416	52
– 12 primary coated fibers - SE	240	20	432	36	624	52
Ribbon fiber splicing capacity						
– R4 cable - 2xR4 per tray	160	20	288	36	416	52
– R8 cable - R8 tray	160	20	288	36	416	52
– R12 cable - R12 tray	144	12	288	24	384	32

Note Capacities indicated above are applicable for Heat Shrinkable, ANT and QPAK splice protectors.

### 3.4 Accessories

The following accessories are ordered separately for field installation

#### 3.4.1 Cable attachment accessories



GCOG001.JPG

**FIST-GCOG-CA** (1 pc)  
**FIST-GCOG-CA-10** (10 pc)  
**Cable retention device**

Cable jacket gripping device that fits in the metalwork of the base to provide cable attachment.



FIK&C103.JPG

**FACC-UCT-01** (1 pc)  
**FACC-UCT-10** (10 pc)  
**Cable termination kit (strength member fixation kit)**

Universal strength member termination kit for metallic/non-metallic strength members between 1.5 and 5 mm diameter. The kit includes 1 or 10 universal strength member terminations, 1 or 10 screws and 1 Allen key.



GCOG20G8.JPG

**FACC-DSCT-10**  
**Dual strength member fixation kit**

This kit has to be used for cables with two strength members or for cables with aramid yarns as a strength member.



### 3.4.2 Mounting kits & work stands

Consult the MOBRA ordering guide for a schematic overview.



7N751497.JPG

#### Pole/wall mounting kit

##### FIST-GCOG-MOBRA

Closure support bracket to be used in combination with FIST-GCOG-POLE-KIT to mount the closure on a pole or in combination with FIST-GCOG-WALL-KIT to mount the closure on the wall.



7N751495.JPG

#### Pole mounting set for MOBRA

##### FIST-GCOG-POLE-KIT

2 clamps to be used in combination with the FIST-GCO-MOBRA for pole mounting of the closure.



7N751496.JPG

#### Wall mounting set for MOBRA

##### FIST-GCOG-WALL-KIT

Set of 2 wood screws, 2 dowels and 2 washers to use in combination with FIST-GCOG-MOBRA to mount the closure on a wall.



7N752062.JPG

#### Work stand alternative 1

##### FIST-GCOG-L-BRACKET

The L-bracket is used to attach FIST-GCOG-MOBRA to the table.  
(to be used in combination with FIST-GCOG-MOBRA)



GCOG011.JPG

#### Work stand alternative 2 (part 1)

##### FIST-GCOG-CCLAMP

Set including 3 clamps to be used in combination with FIST-GCOG-CAPH.



7N753798.JPG

#### Work stand alternative 2 (part 2)

##### FIST-GCOG-CAPH

This bracket is used in combination with a clamp (FIST-GCOG-CCLAMP) for closure fixation during installation.

### 3.4.3 Organizer modules

See the FIST-SASA2 and FIST-SOSA2 organizer ordering guide.

### 3.4.4 Storage baskets



GC2OG026.JPG

#### Storage basket for size BD

##### FIST-BASKET-A

Storage basket to store the uncut fibers of a loose tube ribbon cable.



GC2OG027.JPG

#### Storage basket for size BE

##### FIST-BASKET-B

Storage basket to store the uncut fibers of a loose tube ribbon cable.

#### Notes:

1. To store uncut single fiber loose tubes, no extra items need to be ordered; a plastic sleeve is included in the standard kit to store the tubes between the UMS profiles.
2. Uncut fibers can also be stored on trays using their loop-back facility.





TE Connectivity products deliver a competitive advantage by meeting stringent demands for performance and reliability.

Innovative TE Connectivity components and systems are used in telecommunications, electronics, transportation, infrastructure and energy networks markets throughout the world.

**Tyco Electronics Raychem bvba**  
**Diestsesteenweg 692**  
**B-3010 Kessel-Lo, Belgium**  
**Tel.: 32-16-351 011**  
**Fax: 32-16-351 697**  
**[www.te.com](http://www.te.com)**  
**[www.telecomnetworks.com](http://www.telecomnetworks.com)**

TE (logo) and TE Connectivity are trademarks of the TE Connectivity group of companies and its licensors.

While TE Connectivity and its affiliates referenced herein have made every reasonable effort to ensure the accuracy of the information contained in this catalog, TE Connectivity cannot assure that this information is error free. For this reason, TE Connectivity does not make any representation or offer any guarantee that such information is accurate, correct, reliable or current. TE Connectivity reserves the right to make any adjustments to the information at any time. TE Connectivity expressly disclaims any implied warranty regarding the information contained herein, including, but not limited to, the implied warranties of merchantability or fitness for a particular purpose. TE Connectivity' only obligations are those stated in TE Connectivity' Standard Terms and Conditions of Sale. TE Connectivity will in no case be liable for any incidental, indirect or consequential damages arising from or in connection with, including, but not limited to, the sale, resale, use or misuse of its products. Users should rely on their own judgment to evaluate the suitability of a product for a certain purpose and test each product for its intended application.