Ordering Guide of the FIST MK2 Splicing Only Sub-Assembly (FIST-SOSA2)

This document provides assistance with the selection of SOSAs for use in FIST applications. It includes the following sections:

1 Product description 2

2 Ordering information 3

3 Product guide 4

3.1 Product description 4

3.1.1 Organizer tray types 4

3.1.2 Organizer tray features 6

3.1.3 Wraparound groove plates 6

3.1.4 Wraparound groove plate features 7

3.1.5 Accessories 7

3.2 FIST-SOSA2 capacity 8

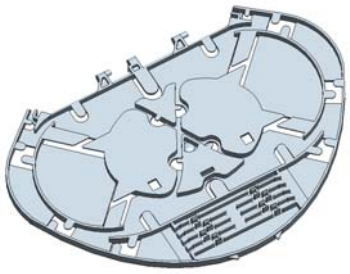
3.2.1 Organizer tray 8

3.2.2 Total capacity 9

1 Product description

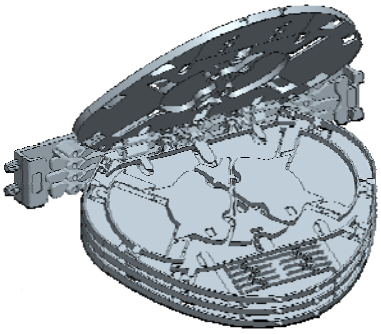
The FIST Splice Only Sub-Assemblies are modular assemblies designed to store fusion splices and the associated extra lengths of fiber.

The sub-assembly consists of two parts :



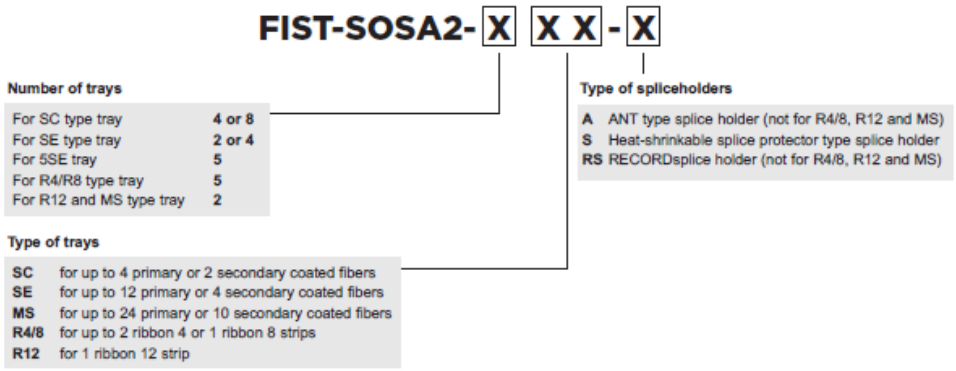
Organizer trays, designed to store fiber and splices for single element, single circuit, and single and multiple ribbon fiber management. The arrangement of the fiber and splices is such that fiber bending is controlled to conform with minimum bend radius requirements in all parts of the tray. The hinged feature of the trays provides protection for the fiber as well as facilitating easy access and identification. The size of the tray is kept to a minimum to ensure maximum space utilisation when used with different network products, and is optimised for single circuit, single element and ribbon applications. An extra length of between 650 mm and 2050 mm of each fiber at either side of the splice can be stored in each splice tray, allowing at least 10 re-splices. The splice holder is designed for heat-shrinkable (e.g. SMOUV-1120-02), ANT-type or RECORDsplice protectors.

A 'Wraparound' grooveplate designed with slots for routing fiber to and from the organizer trays. The wraparound feature, used in combination with the organizer tray, enhances single degradation in that cuts only need to be made when and where they are actually needed. It also provides flexibility and service reliability for progressive take-up of the fiber capacity. The grooveplate's modular design makes it possible to mix different fiber types within the same network element, either during initial installation or at a later date to accommodate emerging technology. Because fibers can enter and leave the grooveplate at all sides, the grooveplates can easy be integrated in in-line designs. (for example in-line closures). The organizer trays are clicked into these grooveplates.



The FIST-SOSA2 units may be clipped onto the **UMS (Universal Mounting System)** profiles in any of the FIST network products (i.e. FIST-GSS2, FIST-GMS2, FIST-GCO2, FIST-GB2). Provision for fiber and cable element identification is integrated in the design.

2 Ordering information



Example : FIST-SOSA2-4SE-S contains 4 SE trays and splice holders for heat-shrinkable splices.

Kit content :
- Organizer trays (qty according to the name string)
- 1 wrap-around groove plate (size depending on the number of trays)

Note: The organizer trays are not pre-installed on the grooveplates.
The number of FIST-SOSA2's needed is a result of the total number of splices to be stored and the type of tray being used.

3 Product guide

3.1 Product description

3.1.1 Organizer tray types[1]

Single Circuit trays: Tray space = 1 UMS

SC TRAY WITH SMOUV SPLICEHOLDERS

Single Circuit (SC) tray with splice holder for heat shrinkable splice protectors

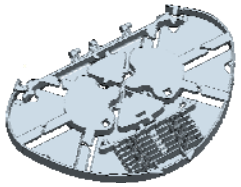
- Fibers and splices are organized in circuits of 1 up to 4 fibers.
- Each tray can hold a maximum of 4 fiber splices.
- Tray thickness = 1 UMS

SC TRAY WITH ANT SPLICEHOLDERS

Single Circuit (SC) tray with splice holder for ANT or Record Splice protectors

- Fibers and splices are organized in circuits of 1 up to 4 fibers.
- Each tray can hold a maximum of 4 ANT or 2 Record Splice fiber splices.
- Tray thickness = 1 UMS

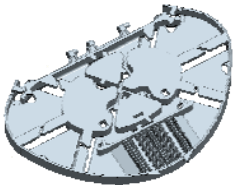
Single Element trays Tray space = 2 UMS



SE TRAY WITH SMOUV SPLICEHOLDERS

Single Element (SE) tray with splice holder for heat shrinkable splice protectors

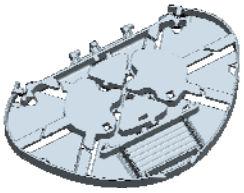
- Fibers and splices are organized per cable element of 1 up to 12 fibers.
- Each tray can hold a maximum of 12 fiber splices.
- Tray thickness = 2 UMS



SE TRAY WITH ANT SPLICEHOLDERS

Single Element (SE) tray with splice holder for ANT protectors

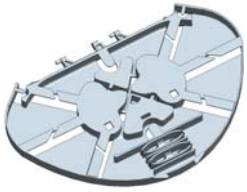
- Fibers and splices are organized per cable element of 1 up to 12 fibers.
- Each tray can hold a maximum of 12 fiber splices.
- Tray thickness = 2 UMS



SE TRAY WITH RECORD SPLICEHOLDERS

Single Element (SE) tray with splice holder for Record Splice protectors

- Fibers and splices are organized per cable element of 1 up to 12 fibers.
- Each tray can hold a maximum of 12 fiber splices.
- Tray thickness = 2 UMS



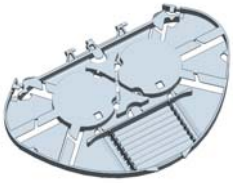
R4/8 TRAY WITH SMOUV SPLICEHOLDERS

R4/8 tray

- Fibers and splices are organized per ribbon.
- The ribbon can be 4 fibers (R4) or 8 fibers (R8).
- The tray can store 2 R4 fibers (2 splices) or 1 R8 fiber (1 splice).
- Tray thickness = 2 UMS

[1] *The space of organizer trays on the groove plate is expressed in UMS units (one UMS unit is equal to 6 mm)*

Single Element trays: **Tray space = 8/5 UMS**

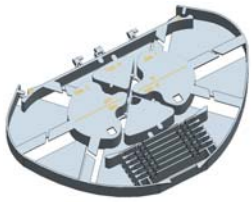


5SE TRAY WITH RED SMOUV SPLICEHOLDERS

Single Element (5SE) tray with splice holder for ´RED´ heat shrinkable splice protectors or record splice

- Fibers and splices are organized per cable element of 1 up to 16 fibers.
- Each tray can hold a maximum of 16 fiber splices.
- Tray thickness = 8/5 UMS
- Bend radius = 25mm

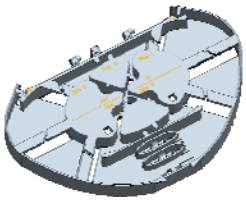
Mass storage trays: **Tray space = 3 UMS**



R12 TRAY WITH SMOUV SPLICEHOLDERS

Mass Storage (MS) tray with splice holder for heat shrinkable splice protectors

- Fibers and splices are organized per cable element of 1 up to 24 fibers.
- Each tray can hold a maximum of 24 fiber splices.
- Tray thickness = 3 UMS



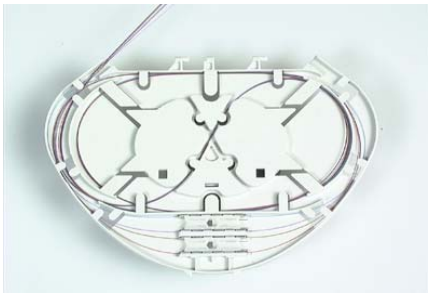
R12 TRAY WITH SMOUV SPLICEHOLDERS

R12 tray

- Fibers and splices are organized per ribbon.
- The ribbon can be up to 12 fibers and each tray can hold 1 splice
- Tray thickness = 3 UMS

3.1.2 Organizer tray features

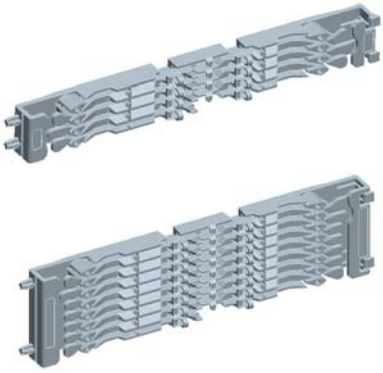
Identification
The tray can be identified by writing with a permanent marker pen at the space provided.



SOSA2O13.JPG

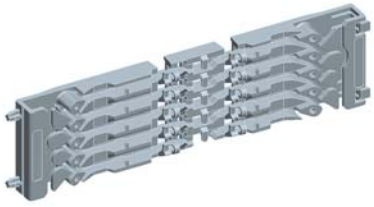
Looped function
All trays offer the possibility to enter and leave the tray at the same side. Using the grooves (X) in the central part of the tray, uncut fiber can easily be stored.

3.1.3 Wraparound groove plates



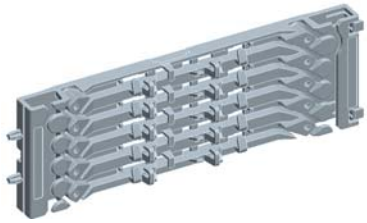
SINGLE CIRCUIT (SC/SE) GROOVE PLATE

Single Circuit (SC/SE) groove plate
- Length: 24 or 48mm
- UMS length: 4 or 8 UMS
- Compatible with trays of 1 (SC) and 2 (SE) UMS thickness (except for R4/8 tray)



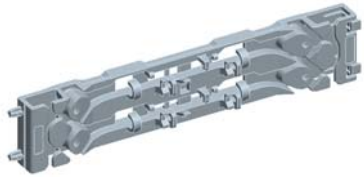
SINGLE ELEMENT (5SE) GROOVE PLATE

Single Element (5SE) groove plate
- Length: 48mm
- UMS length: 8 UMS
- Compatible with trays of 8/5 UMS thickness (5SE trays)



RIBBON 4/8 GROOVE PLATE

Ribbon 4/8 groove plate
- Length: 60mm
- UMS length: 10 UMS
- Compatible with R4/8 trays



MASS STORAGE (MS) GROOVE PLATE

Mass Storage (MS) groove plate
- Length: 36mm
- UMS length: 6 UMS
- Compatible with trays of 3UMS thickness (MS and R12 tray)

3.1.4 Wraparound groove plate features

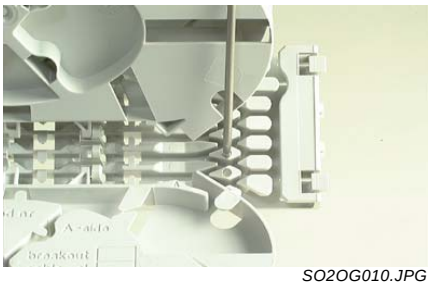
GSS2OG14.JPG

Snap-fit to UMS profile
These groove plates snap-fit in the UMS profiles (Universal Mounting System) of the network element.

SO2OG012.JPG

Removable side
In certain applications of the GB2 and GSS2, one side of the grooveplate has to be removed to allow fibers to leave the grooveplate directly when leaving the tray.

3.1.5 Accessories



SO2OG010.JPG

Tray wedge
Trays on top of the one which is being accessed can be kept in the desired position using a tray wedge. Holes have been provided in the grooveplate for positioning. The tray wedge is standard delivered with most network elements.

SOCATC01.JPG

Tray lid and fiber guiding pin
When trays are stacked on each other, the top tray has to be protected with a traylid. A fiber guiding pin can be positioned on the traylid. The traylid is standard delivered with the network element, but can be ordered separately as well.

(Order code :	FISTV-K341-2229-01:	pack of 20 pieces)
(Order code for 5SE trays :	FISTV-K341-2229-RS-01:	pack of 20 pieces)

3.2 FIST-SOSA2 capacity

3.2.1 Organizer tray

Parameter	Single Circuit Tray SC	Single Element Tray SE	Single Element Tray 5SE[1]	Mass Storage Tray MS	Ribbon Tray R4/8	Ribbon Tray R12
Tray thickness (in UMS units)[2]	1	2	8/5	3	2	3
Maximum number of splices						
250 µm	4	12	12 (16)[3]	24	N/A	N/A
900 µm	2	4	N/A	10	N/A	N/A
Mixed 250/900 µm	2	4	N/A	16	N/A	N/A
Ribbon 4 mass splices	N/A	N/A	N/A	N/A	2	N/A
Ribbon 8 mass splices	N/A	N/A	N/A	N/A	1	N/A
Ribbon 12 mass splices	N/A	N/A	N/A	N/A	N/A	1
Fiber length storage (each side of splice)						
Minimum:	650 mm	650 mm	650 mm	650 mm	650 mm	650 mm
Maximum:						
250 µm	2050 mm	2050 mm	1500 mm	1500 mm	2050 mm[4]	2050 mm[5]
900 µm	1200 mm	1500 mm	N/A	800 mm	N/A	N/A
Mixed 250/900 µm	1500 mm	1500 mm	N/A	800 mm	N/A	N/A
Ribbon 4	N/A	N/A	N/A	N/A	2050 mm	N/A
Ribbon 8	N/A	N/A	N/A	N/A	2050 mm	N/A
Ribbon 12	N/A	N/A	N/A	N/A	N/A	2050 mm
Installed (heat-shrinkable) splice protector dimensions						
Minimum ∅	2.2 mm	2.2 mm	2.2 mm	2.2 mm	3.5 mm	3.5 mm
Maximum ∅	2.8 mm	2.8 mm	2.8 mm	2.8 mm	5.0 mm	5.0 mm
Minimum length	30 mm	45 mm	45 mm	45 mm	35 mm	35 mm
Maximum length	45 mm	45 mm	45 mm	45 mm	45 mm	45 mm

[1] Bend radius is 25mm for all 5SE trays

[2] *The length of the FIST-SOSA2, the space of the organizer tray on the groove plate and the available space on the Fiber Arrangement System is expressed in UMS units (One UMS unit is equal to 6 mm)*

[3] 16 splices per tray for the RED SMOUV / Record Splice tray

[4] Fibers are 'ribbonized'

[5] Fibers are 'ribbonized'

3.2.2 Total capacity

The FIST-SOSA2 sub-assemblies can handle the following fiber quantities:

Description	# trays	Maximum number of splices per module				Groove plate specifications	
		250 µm fiber	900 µm fiber	250/900 µm fiber	Ribbon fiber	# UMS Units	Total Length (mm)
Single circuit sub-assemblies:							
FIST-SOSA2-4SC-'X'	4	16	8	8	N/A	4	24
FIST-SOSA2-8SC-'X'	8	32	16	16	N/A	8	48
Single element sub-assemblies:							
FIST-SOSA2-2SE-'X'	2	24	8	8	N/A	4	24
FIST-SOSA2-4SE-'X'	4	48	16	16	N/A	8	48
Single element (5SE) sub-assemblies:							
FIST-SOSA2-5SE-'X'	5	60 (80)[1]	N/A	N/A	N/A	8	48
Ribbon 4/8 sub-assemblies:							
FIST-SOSA2-5R4/8-S	5	N/A	N/A	N/A	4 - 10R4 2 - 5R8	10	60
Mass storage sub-assemblies:							
FIST-SOSA2-2MS-S	2	24	12	12	N/A	6	36
FIST-SOSA2-2R12-S	2	N/A	N/A	N/A	2 R12	6	36

Tyco Electronics Raychem BVBA

Diestsesteenweg 692
B-3010 Kessel-Lo, Belgium
BTW BE 0405.721.306
RPR Leuven ING 330-0816041-34
www.tycoelectronics.com
www.telecomosp.com

Tyco Electronics, TE logo and FIST are trademarks.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, Tyco Electronics makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. Tyco Electronics' obligations shall only be as set forth in Tyco Electronics' Standard Terms and Conditions of Sale for this product and in no case will Tyco Electronics be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of Tyco Electronics products should make their own evaluation to determine the suitability of each such product for the specific application.

© Copyright Tyco Electronics 2009

[1] 16 splices per tray for the RED SMOUV / Record Splice tray