

# **Fiber Optic Splice Closure (FOSC)**

**SFO-SCLV-204**

**Instruction Manual**

## Applications

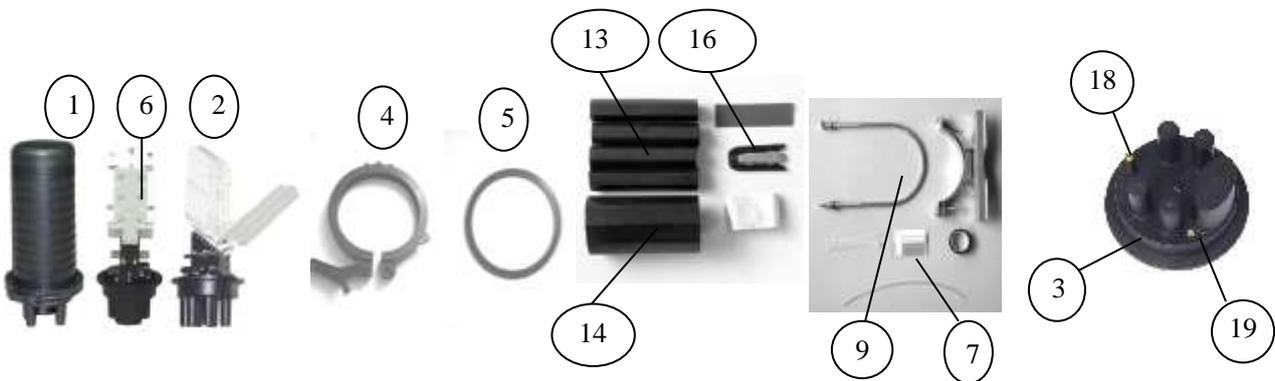
SFO-SCLV-204 is a fiber optic cable splice of multiple purposes, which can connect and branch cables. SFO-SCLV-204 has 5 inlets. 4 inlet are for the installation of cut cable; the other oval inlet is for non cut cable. The fiber closures are suitable for different fiber cable splices in branching applications. It can be placed in aerial, wall-mounting, pole mounting and so on.

### 1. Specifications

<b>Size (mm) H×D</b>	450 × Ø230	<b>Capacity(cores)</b>	144 single fibers
<b>Weight (kg)</b>	3.80-4.20	<b>Airproof type</b>	Heat Shrink
<b>Entrances</b>	5	<b>Reinforced core</b>	Steel wire
<b>Suitable cable diameter</b>	Round port: Ø8mm~Ø17.5 Oval port: up to Ø 24mm	<b>Material</b>	MPP
<b>Maximum number of trays</b>	6	<b>Capacity of Tray</b>	Max 24 single Fusion splices

### 2. Structure and Components

#### 2.1 Pictures of fiber closure and its components



## 2.2 Accessories

### 2.2.1 Main components

Number	Name	Quantity	Marks
1	Cover	1 piece	Height × Diameter(mm): 450×Φ230
2	Fiber splice tray	1 set	
3	Base	1 set	Fixing internal part
4	Plastic hoop	1 set	Fixing bottom and cover
5	Seal fitting	1 piece	Waterproof and sealing's part
6	Fixing sheet	1 set	Fixing the splice tray and storing non cut cable

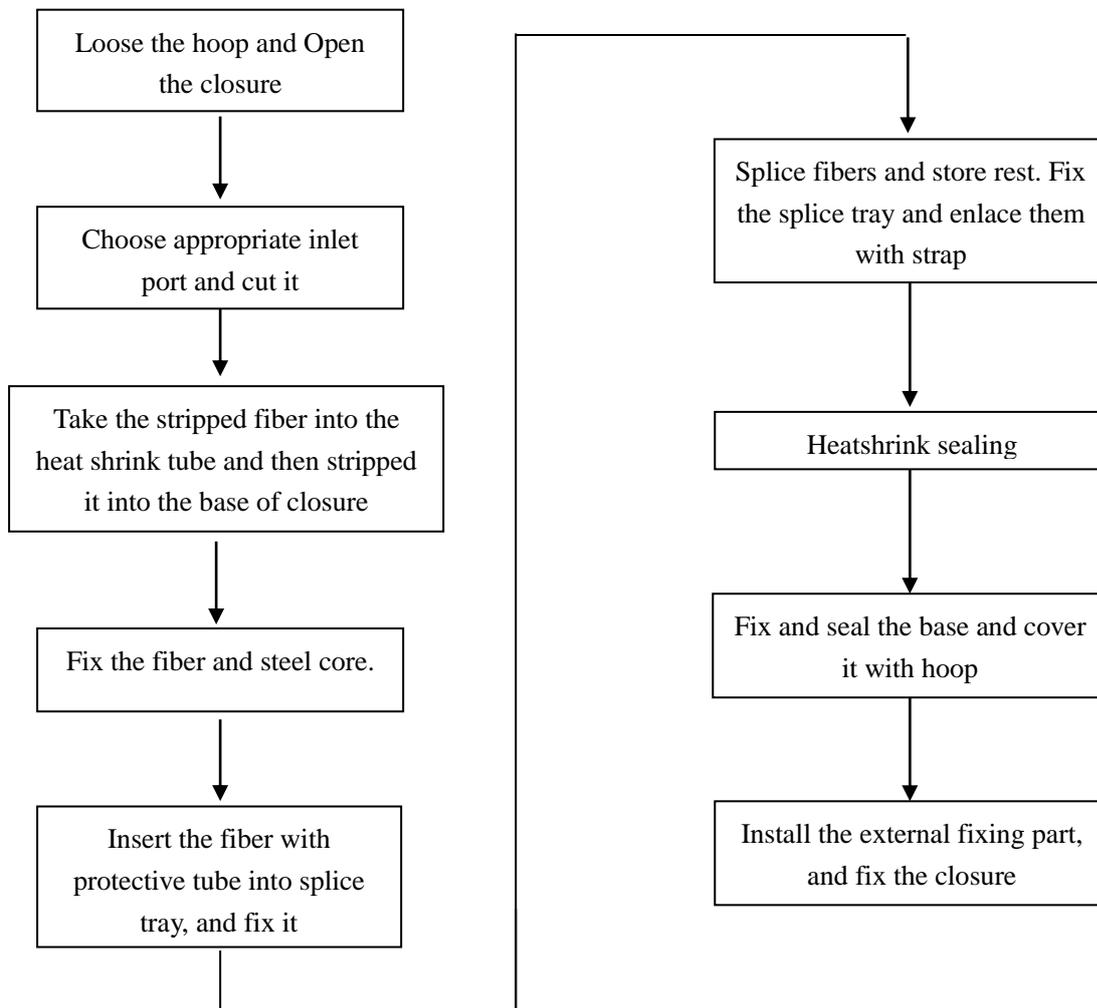
### 2.2.2 Accessories and tools

Number	Name	Quantity	Application
7	Fiber Splice Protective Tube	Core no. + 10%	Fiber fusion and protection
8	Nylon tie	Tray no.×3	Fixing fiber with protective coat
9	Pole hoop	1 set	Fixing for closure on pole
10	Labeling paper	1 piece	Fiber number mark
11	Insulating tape	1 piece	The fixing part assistant
12	EVA transparent hose	6 piece	Protect fiber

### 2.2.3 Optional Accessories

Number	Name	Quantity	Application
13	Heat shrink tube	4 pieces Φ30×150(mm)	Sealing the inlet of cut cable
14	Dual heat shrink tube	1 piece Φ75×150(mm)	Sealing the inlet of uncut cable
15	Pressure testing valve	1 set	Testing after closure was sealed
16	Silver tape	1 set	Cleaning ,fiber protection and heat shrink
17	Sand paper	1 set	Cleaning ,fiber protection and heat shrink
18	Branching clip	1 set	Heat shrink the inlet of uncut cable
19	Grounding device	1 set	

### 3. Installation flow chart



### 4. Direction

#### 4.1 Preparation

4.1.1 Please check the type of closure and its accessories, check the type of fibers and specifications before starting installation.

4.1.2 All the components of closure must be clean and dry.

4.1.3 Keep the working place clean and convenient to operate.

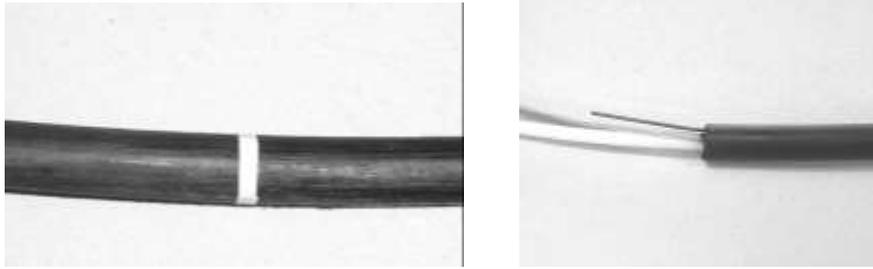
4.1.4 During the sheath stripping and the closure assembling procedures, use normative tools and instruments.

#### 4.2. Cable installation

4.2.1 Mark the cutting point on the cable, generally, the length of stripping is about



180cm.



4.2.2 Remove the unnecessary cable sheath from the marked point with a sheath stripper

*Note1. Be sure not to damage the fiber.*

*Note2. Do not use any damaged cable.*

*Note3. While remove the cable sheath, please do not cut, twist or damage fiber coat. Cut the damaged fiber cable and strip the sheath again in case an accident happened.*

4.2.3 Cut off the extra reinforced core about 3-4cm from the removing point on the sheath. The length depends on the distance from fiber fixed press button to steel core fixing pole.

### 4.3. Installation of fiber closure

4.3.1 Check the specified type and all the accessories of the fiber closure

4.3.2 Open the fiber closure

Unlade the locked device on plastic hoop, open plastic hoop in order to separate the cover and bottom.

*Note. Because the sealing performance is predominant, please be careful when separating the cover and bottom so as not to damage the case.*

4.3.3. Insert cable into fiber closure.

- i. Select the appropriate cable inlet ports and cut the end of the fiber cable.
- ii. Insert the removed cable into the heat shrink tube first, then into the inlet port
- iii. Fix the reinforced core and fiber cable
  - a. Place the reinforced core plug in the fixing reinforced core, then using a screwdriver or a wrench to tight the bolts.
  - b. Fix the cable on the bracket with press button.
- iv. *Note: Be careful not to damage the fiber*
- v. Rub and clean the inlet ports and the cable with a piece of sandpaper to ensure the heat shrink and sealing performance.



- vi. Wrap 10cm long cable with silver tape to protect cable inlet sheath, then do the heat shrink installation (6cm long cable was covered by heat shrink tube).



- vii. Heating heat shrink tube

- viii. Push the heat shrink tube to the bottom of cable inlet port and

heat the tube but not let the fire close to the bottom of closure and the cable with sandpaper. (*Branching clip must be used when heat shrink the inlet port of uncut cable.*)

*Note:* 1) Heat it evenly when it is in heat shrink condition

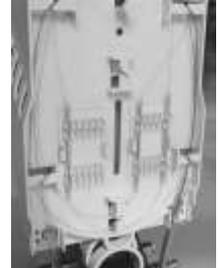
2) Shrink the heat shrink tube near the joint of inlet and bottom side of the case first, then heat the other parts after it has cooled for some time.

- ix. Distribution, protection and fix of the fibers

- x. Distribute the fiber according to require, and then let the fiber through the EVA transparent hose and fixed at entrance of fiber tray by nylon tie.

- xi. Splices fibers and coil surplus fibers

- xii. Fusion and splice fibers and coil surplus fibers on bracket using an approved splicing method, then cover the splice tray cover after splice fibers.



- xiii. Assembling the closure

- xiv. After install of cables, put sealing

loop on case, then place the dome shaped cover onto the bottom portion. Fasten the dome shaped cover and the bottom portion together with a plastic hoop.

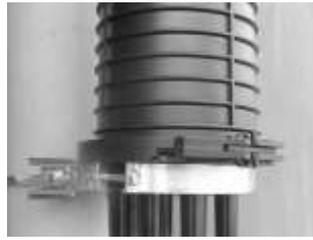
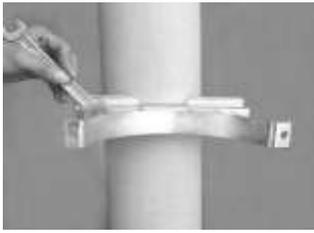


- xv. Fiber testing and sealing test

- xvi. It's possible to test after the closure are pressurized, and it's possible to protect optic cables with earthing device (Pressure testing valve is optional)

- xvii. Fix the fiber closure

- (1) Fix the hanger on the concrete pole with the M10×560 screw, then tighten the nut.
- (2) Fix the body of the fiber closure and tighten the nut.



## 5. Notice

Using the six small cable inlet ports, the diameter of the cable should not be more than  $\phi 17.5\text{mm}$ , if for the big port; it should be no more than  $\Phi 23\text{mm}$ .

## 6. Main technical data

6.1 Environment temperature:  $-40^{\circ}\text{C} \sim +55^{\circ}\text{C}$ .

6.2 Max. Capacity: 144 cores (using single core fiber)

6.3 Range of the suitable diameter of the cable:  $\Phi 8\text{mm} \sim \Phi 17.5$  ( $\Phi 23\text{mm}$ ) .

6.4 Airproof performance: Airing pressure inside box 100Kpa, pointer immovability after 24 hours or no air bell within 15min when parked in the common temperature water.

6.5 Re-encapsulation performance: no change in the index of air-proof performance after three times of repeat encapsulation

6.6 Insulation resistance:  $\geq 2 \times 10^4 \text{M}\Omega$

6.7 Voltage-resistance strength: Under the effect of 15kvDC/1min, non-puncture, no arc-over

## 7. Service time

Operating lifetime of not less than 20 years is guaranteed for each closure if it properly installed.