

**SSC2101&2102&2103-FH&FM
V100R001C10**

Product Description

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Preface

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol Conventions

| Symbol | Description |
|--|---|
|  DANGER | Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. |
|  WARNING | Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. |
|  CAUTION | Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. |
|  NOTICE | Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. NOTICE is used to address practices not related to personal injury. |
|  NOTE | Calls attention to important information, best practices and tips. NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration. |

Change History

| Issue | Date | Description |
|-------|------------|---|
| 01 | 2017-08-29 | This issue is the first official release. |

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Supported sealing modes include heat-shrink sealing and mechanical sealing.

Such closures can be installed in pipes, manholes, and hand holes, against poles, and in direct-buried mode.

- The closures are easy to operate and install.

The closures use staple bolts that are easy to open and fix.

With function areas that are divided clearly, the closures can be operated based on function area.

Splicing trays are strapped for protection.

Splicing trays are stacked in a ladder shape and are easy to turn over, and positive stop holes on supports facilitate operations.

Splicing trays are designed with four types of specifications.

The distance between two straight-through apertures is the largest in the industry, protecting cables against fractures.

- Reliable protection performance enables the closures to apply to various environments.

Compliant with IP68, the closures boast high sealing performance.

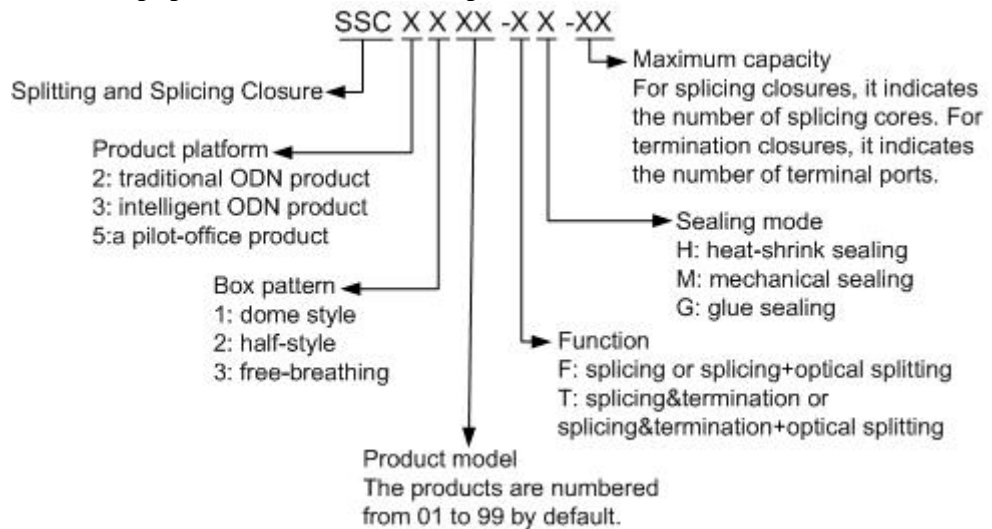
The closures are highly corrosion-resistant.

The closures comply with RoHS standards and TÜV Rhineland standards. (RoHS refers to the restriction of the use of certain hazardous substances in electrical and electronic equipment.)



NOTE

The following figure shows the rules for naming the SSCXXXX-XX-XX series.



2 Product Introduction

About This Chapter

The SSC2101&2102&2103-FH&FM dome-style series include six types of products. They are classified into heat-shrink-sealing closures and mechanical-sealing closures by sealing mode.

The following table describes the product models and configuration scenarios of the dome-style closures.

Table 2-1 Product models and configuration scenarios

| Dimensions | | Φ183 x 420 | | Φ183 x 540 | | Φ238 x 560 | |
|-----------------------------------|-------------------------------------|------------|------------|------------|------------|------------|------------|
| Model | | SSC2101-FM | SSC2101-FH | SSC2102-FM | SSC2102-FH | SSC2103-FM | SSC2103-FH |
| Capacity | | 144 | 144 | 144 | 144 | 288 | 288 |
| Number of functional modules | 24-core splicing tray | 6 | 6 | 6 | 6 | 12 | 12 |
| | Straight-through cable storage tray | 1 | 1 | 1 | 1 | / | / |
| Selectable of optical splitters | SPL9102 series | √ | √ | √ | √ | √ | √ |
| | SPL9105 series | / | / | / | / | / | / |
| Number of optical cable apertures | Straight-through apertures | 1 | 1 | 1 | 1 | 1 | 1 |
| | Common aperture | 4 | 5 | 4 | 5 | 7 | 6 |



NOTE

- The installation position for one 24-core splicing tray supports two 12-core splicing trays.
- The SPL9102 can be installed in 12-core and 24-core splicing trays. The 12-core splicing trays support optical splitters with 1:8 and less split ratios.
- The SPL9105 can be installed in 24-core splicing trays. The quantity of SPL9105 that can be installed in a dome-style closure can be calculated based on the number of adapters in the closure.

2.1 Dome-Style Direct-Splicing Closure

2.1 Dome-Style Direct-Splicing Closure

This topic describes the appearance, structures, functional modules, and route diagrams of the SSC2101&2102&2103-FH&FM series dome-style direct-splicing closures.

Dome-style direct-splicing closures support mechanical sealing and heat-shrink sealing. They can be assembled to support direct splicing, and support the SPL9102 bare optical splitters. The following table describes capacities of dome-style direct-splicing closures with different models.

| Model | Maximum Splicing Capacity (Unit: Core) | Sealing Mode |
|------------|--|---------------------|
| SSC2101-FM | 144 | Mechanical sealing |
| SSC2102-FM | 144 | Mechanical sealing |
| SSC2103-FM | 288 | Mechanical sealing |
| SSC2101-FH | 144 | Heat-shrink sealing |
| SSC2102-FH | 144 | Heat-shrink sealing |
| SSC2103-FH | 288 | Heat-shrink sealing |

2.1.1 Appearance and Structure

Dome-style direct-splicing closures adopt the mechanical and heat-shrink sealing modes, and support large-sized, medium-sized, and small-sized specifications. This topic describes the appearance and structure of dome-style direct-splicing closures.

The following figure shows the appearance of a dome-style mechanical-sealing closure.

Figure 2-1 Appearance of a dome-style mechanical-sealing closure



1. Box

2. Staple bolt

3. Cable apertures



1. Straight-through cable apertures

2. Common cable apertures

The following figure shows the appearance of a dome-style heat-shrink-sealing closure.

Figure 2-2 Appearance of a dome-style heat-shrink-sealing closure



1. Box

2. Staple bolt

3. Cable apertures



1. Straight-through cable apertures

2. Common cable apertures

The following figure shows the structure of a dome-style mechanical-sealing closure.

Figure 2-3 Structure of a dome-style mechanical-sealing closure

Front view



Rear view



- 1. Straight-through area
- 2. Straight-through tray
- 3. Splicing tray
- 4. Cable securing fittings
- 5. Gasket

Figure 2-4 Structure of a dome-style heat-shrink-sealing closure

Front view



Rear view



- 1. Straight-through area
- 2. Straight-through tray
- 3. Splicing tray
- 4. Cable securing fittings
- 5. Gasket

2.1.2 Functional Modules

Functional modules of dome-style direct-splicing closures include straight-through trays, splicing trays, optical splitters, and installation accessories.

Straight-through Tray

A straight-through tray is used to store uncut straight-through optical cables.

Figure 2-5 Appearance of straight-through trays



1. Small-sized straight-through tray

2. Large-sized straight-through tray

The following table lists specifications of straight-through trays.

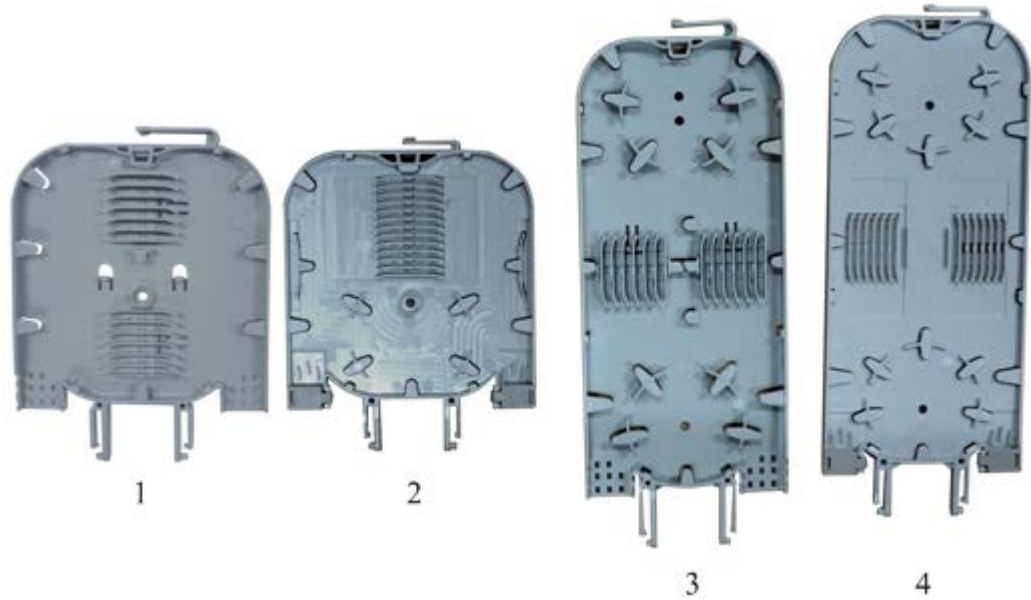
Table 2-2 Specifications of straight-through trays

| Item | Small-Sized Straight-through Tray | Large-Sized Straight-through Tray |
|----------------------------------|-----------------------------------|-----------------------------------|
| Dimensions (H x W x D; unit: mm) | 172 x 102 x 22 | 241 x 102 x 22 |
| Net weight (unit: kg) | 0.045 | 0.066 |
| Maximum storage capacity | Eight 1.6-meter loose tubes | Twelve 1.6-meter loose tubes |
| Applicable box model | SSC2101-FM, SSC2101-FH | SSC2102-FM, SSC2102-FH |
| Material | PC+ABS | PC+ABS |
| Color | Cold gray 3C | Cold gray 3C |

Splicing Tray

A splicing tray is used to store straight-through bare fibers, splicing protection sleeves, and bare optical splitters.

Figure 2-6 Appearance of splicing trays



1. Small-sized 24-core splicing tray 2. Small-sized 12-core splicing tray 3. Large-sized 24-core splicing tray 4. Large-sized 12-core splicing tray

The following table lists specifications of splicing trays.

Table 2-3 Specifications of splicing trays

| Item | Small-Sized 24-Core Splicing Tray | Small-Sized 12-Core Splicing Tray | Large-Sized 24-Core Splicing Tray | Large-Sized 12-Core Splicing Tray |
|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Dimensions (H x W x D; unit: mm) | 161 x 123 x 10.8 | 156 x 123 x 5.4 | 262 x 102 x 10.8 | 259 x 102 x 5.4 |
| Net weight (unit: kg) | 0.032 | 0.027 | 0.053 | 0.040 |
| Splicing capacity (unit: core) | 24 | 12 | 24 | 12 |
| SPL9102 installation capacity | 3 x 1:4, 2 x 1:8, or 1 x 1:16 | 2 x 1:4 or 1 x 1:8 | 3 x 1:4, 2 x 1:8, or 1 x 1:16 | 2 x 1:4 or 1 x 1:8 |

| Item | Small-Sized 24-Core Splicing Tray | Small-Sized 12-Core Splicing Tray | Large-Sized 24-Core Splicing Tray | Large-Sized 12-Core Splicing Tray |
|----------------------|-----------------------------------|-----------------------------------|--|--|
| Applicable box model | SSC2101-FM, SSC2101-FH | SSC2101-FM, SSC2101-FH | SSC2102-FM, SSC2102-FH, SSC2103-FM, SSC2103-FH | SSC2102-FM, SSC2102-FH, SSC2103-FM, SSC2103-FH |
| Material | PC+ABS | PC+ABS | PC+ABS | PC+ABS |
| Color | Cold gray 3C | Cold gray 3C | Cold gray 3C | Cold gray 3C |

Optical Splitter

Dome-style direct-splicing closures house the SPL9102 optical splitters.

Figure 2-7 Appearance of SPL9102



The following table lists specifications of SPL9102.

Table 2-4 Specifications

| Item | SPL9102 |
|---|-------------------|
| Package type | Bare encapsulated |
| Pigtail diameter (unit: mm) | 0.25 |
| Fiber type | G.657A |
| Adapter type | / |
| Optical split ratio | 1: 2 to 1:32 |
| Fiber length (unit: m) | 1.5 |
| Dimensions with packaging (H x W x D; unit: mm) | 269 x 120 x 18 |

Installation Accessories

Installation accessories of dome-style closures include wall-mounting accessories, aerial mounting accessories, and pole-mounting accessories.

Figure 2-8 Installation accessories



1. Wall-mounting accessory 2. Aerial mounting accessory 3. Pole-mounting accessory

The following table lists specifications of installation accessories.

Table 2-5 Specifications

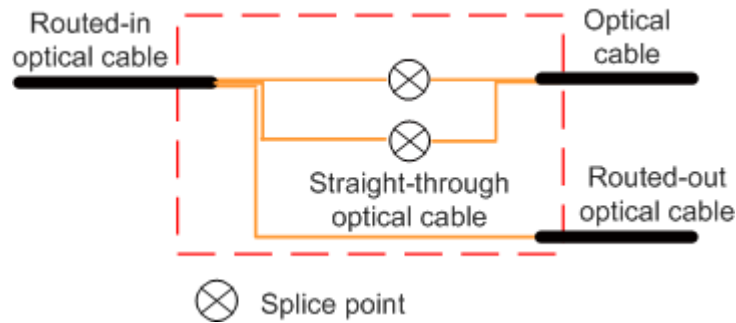
| Item | Wall-mounting Accessory | Aerial Mounting Accessory | Pole-mounting Accessory |
|----------------------------------|-------------------------|---------------------------|-------------------------|
| Dimensions (H x W x D; unit: mm) | 230 x 158 x 18 | 240 x 158 x 18 | 230 x 200 x 18 |
| Net weight (unit: kg) | 0.135 | 0.145 | 0.235 |
| Material | Stainless steel 304 | Stainless steel 304 | Stainless steel 304 |

2.1.3 Cable Route Diagrams

This topic shows the cable route diagrams of dome-style direct-splicing closures in various configuration scenarios.

Dome-Style Direct-Splicing Closure Without Bare Optical Splitters

- Schematic diagram

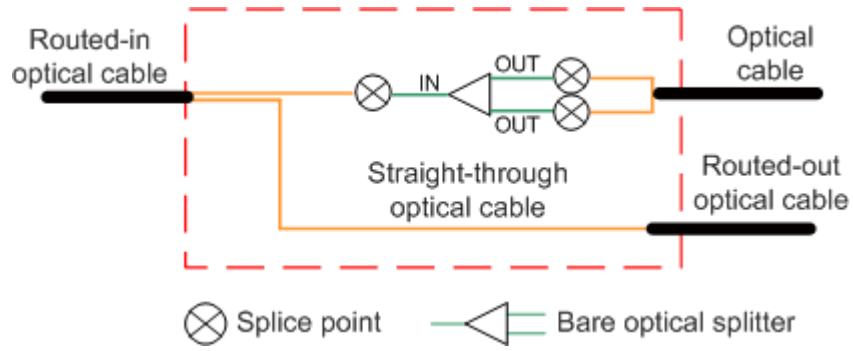


- Route diagram



Dome-Style Direct-Splicing Closure with Bare Optical Splitters

- Schematic diagram



- Route diagram



3 Technical Specifications

Specifications

The following table describes specifications of dome-style direct-splicing closures.

Table 3-1 Specifications of dome-style direct-splicing closures

| Model | SSC2101-FM | SSC2102-FM | SSC2103-FM | SSC2101-FH | SSC2102-FH | SSC2103-FH |
|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|
| Dimensions (H x W x D; unit: mm) | Φ183 x 420 | Φ183 x 540 | Φ238 x 560 | Φ183 x 420 | Φ183 x 540 | Φ238 x 560 |
| Dimensions with packaging (H x W x D; unit: mm) | 545 x 255 x 265 | 665 x 255 x 265 | 680 x 305 x 325 | 545 x 255 x 265 | 665 x 255 x 265 | 680 x 305 x 325 |
| Net weight (unit: kg) | 2.1 | 2.5 | 3.9 | 1.7 | 2.1 | 3.5 |
| Gross weight (unit: kg) | 3.5 | 3.9 | 5.5 | 3.0 | 3.4 | 5.0 |
| Number of cable apertures | 1+4 | 1+4 | 1+7 | 1+5 | 1+5 | 1+6 |
| Cable size (unit: mm) | Bundle optical cable: 5 to 20 | Bundle optical cable: 5 to 20 | Bundle optical cable: 5 to 20 | Bundle optical cable: 8 to 20 | Bundle optical cable: 8 to 20 | Bundle optical cable: 10 to 28 |
| Installation mode | Wall-mounting, aerial | Wall-mounting, aerial | Wall-mounting, aerial | Wall-mounting, aerial | Wall-mounting, aerial | Wall-mounting, aerial |

| Model | SSC2101-FM | SSC2102-FM | SSC2103-FM | SSC2101-FH | SSC2102-FH | SSC2103-FH |
|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | mounting, pole-mounting | mounting, pole-mounting | mounting, pole-mounting | mounting, pole-mounting | mounting, pole-mounting | mounting, pole-mounting |
| Material | PA66+25%GF | PA66+25%GF | PA66+25%GF | PA66+25%GF | PA66+25%GF | PA66+25%GF |
| Adapter type | / | / | / | / | / | / |
| Color | Black | Black | Black | Black | Black | Black |
| Protection rating | IP68 | IP68 | IP68 | IP68 | IP68 | IP68 |
| Flame-retardant rating | UL94-HB | UL94-HB | UL94-HB | UL94-HB | UL94-HB | UL94-HB |

Environment Specifications

The following table describes environment specifications of dome-style closures.

Table 3-2 Environment specifications of dome-style closures

| Item | Specifications |
|-----------------------|-------------------|
| Operating temperature | -40°C to +65°C |
| Storage temperature | -40°C to +70°C |
| Atmospheric pressure | 76 kPa to 106 kPa |
| Relative humidity | 95% |

Standards Compliance

The following table lists the standards to which the dome-style closures conform.

Table 3-3 Standards compliance

| Standards | Description |
|----------------|---|
| GB/T 3873-1983 | General specifications for products packaging of communication equipment |
| ITU-T L0.13 | Performance requirements for passive optical nodes: Sealed closures for outdoor environments (OA) (major standards) |

| Standards | Description |
|------------------|---|
| IEC 62134-1-2002 | Fiber optic enclosures - Part 1: Generic specification (reference standards) |
| ITU.T L.51 | Passive node elements for fiber optic networks – General principles and definitions for characterization and performance evaluation (reference standards) |
| GR-771core.002 | Generic Requirements for Fiber Optic Splice Closures: Aerial-Mounted Products. (reference standards) |
| UL94 | Test for flammability of Plastic Materials for parts in Devices and Appliances |
| ETS 3000 19-2-2 | Environmental conditions and environmental test for telecommunications equipment; Part 2-2: Specification of environmental tests Transportation CLASS 2.3 (Public Transportation) |
| IEC 60529 | Degrees of protection provided by enclosures (IP Code) IP54 |
| YD/T 814.1-2004 | Closure for optical fiber cables Part1: Closure for outdoor optical fiber cables (reference standards) |

A Acronyms and Abbreviations

| | |
|------|-----------------------------------|
| APC | angle physical contact |
| FMC | field-mountable optical connector |
| FTTH | fiber to the home |
| ODN | optical distribution network |
| OLT | optical line terminal |
| ONT | optical network terminal |
| SC | square connector |
| SPL | splitter |
| UPC | ultra physical contact |
| UV | ultraviolet |