

# Fiber splice closures

At CommScope, we provide proven solutions to help our customers better connect with their customers



Deploying more fiber means balancing key network criteria...



Fiber-to-the-home (FTTH) and FTTx networks offer the high-bandwidth, low-latency performance required for the delivery of residential, enterprise, and mobile fronthaul/backhaul services.

Building out these networks requires fibers to be spliced in different parts of the network. Wherever fibers need to be aggregated, branched or accessed in the outside plant, fiber splice closures are used to house and protect the splice and manage fiber cables.

Deploying the right closures in the right place is vital. CommScope can help. We have a vision for the future and the expertise to get you there.



## Different networks, different needs



Outside plant FTTX networks can be broadly segmented into four main areas:

- Trunk
- Feeder
- Distribution
- Drop

Key requirements for today's networks are:

- Reliability
- Installability
- Flexibility
- Speed

Depending on the network segment, one of these characteristics will be more important than the others.

The **trunk network** is the backbone, where each fiber strand aggregates traffic from many customers. Hence, its main characteristic is reliability. Installations in this part of the network require expert staff and specialized tools for intervention. Once the network is in place, however, technicians rarely go back for changes or maintenance. This is sometimes referred to as the "fit and forget" part of the fiber network.

Closer to the customer is the **feeder network**—or, even more so, the **distribution network**. As the network extends farther out in the last mile, more installability and flexibility are needed. In the **drop part** of the network—which connects homes, buildings, wireless base stations, or other nodes—speed becomes of utmost importance.

In the feeder, distribution network, and drop part of the network, there are many fiber cable connections, access points, and flexibility nodes. It's here that service providers test and diagnose their network and make frequent alterations so they can add fiber. The farther out toward the edge of the network, the less specialized the installation crew generally is and the more installer friendly the closures need to be. That's why more connectorized and hardened solutions will be found in the drop and distribution part of the network. Typically, a mix of spliced and preterminated cabling solutions is deployed to address the diversity of outside plant environments.

Since each network has its own characteristics, it will also require its own solution.

## The right closure for the right network

Installing the right closures in the right part of a network is vital. The table below summarizes the main characteristics of each segment of the fiber network and the main product requirements that go with it.

Part of the network	Main network characteristics	Key product requirements	Recommended CommScope products
TRUNK	RELIABILITY	<ul> <li>Only limited flexibility needed over time—"fit and forget"</li> <li>Able to withstand underground harsh environments</li> <li>Built for mass splicing and fiber storage (FOSC trays)</li> </ul>	FOSC®
FEEDER	INSTALLABILITY	<ul> <li>Occasional re-entry and access to fiber connections</li> <li>Transient free fiber access is a valued feature (FIST trays)</li> <li>Compatibility with infrastructure: manhole, strand, pole, direct buried</li> </ul>	FOSC <sup>®</sup> or FIST <sup>®</sup> (choice based on application)
DISTRIBUTION	FLEXIBILITY	<ul> <li>Frequent re-entry to access fiber connections and to add drop cables for network expansion</li> <li>Multi-operator capability</li> <li>Compatibility with infrastructure: handhole, direct buried, pole, façade</li> </ul>	Fosc®, fist®, tenio®, scil
DROP	SPEED	<ul> <li>Spliced, connectorized and hardened connector technology available for last mile drop</li> <li>Multi-operator capability</li> <li>Compatibility with infrastructure: handhole, façade</li> </ul>	SCIL, terminals

## MAKING GOOD SELECTIONS

When selecting fiber closures, consider the characteristics of your network rather than the type of network. You may find a closure—one generally used in another part of the network—more suited for your application.



RELIABILITY

اNSTALLABILITY FLEXIBILITY

SPEED

## Different networks, different needs



	FIST	FOSC	TENIO	SCIL
Best application	Feeder/Distribution	Trunk/Feeder	Distribution	Distribution/drop
Number of fibers	Up to 1536 (single fiber)	Up to 768 (single fiber) Up to 1152 (ribbon fiber)	Up to 288 (single fiber)	Up to 288 (single fiber)
Looped cable	Yes	Yes	Yes	Yes
Single Circuit Splicing	Yes	No	No	No
Single Element Splicing	Yes	Yes	Yes	Yes
C/DWDM and splitter modules	Yes	Yes	Yes	Yes
Fiber count per splice tray	2/4/8/12/24	12/24/48/96	12/24	12/24/48



#### **FOSC SERIES**

- · Versatile and proven platform
- Deployable in different splicing applications
  - Expressed
  - Tap-off
  - Branch
  - Repair



#### **FIST SERIES**

- FIST fiber trays and organizers efficiently handle single and ribbon fibers
- Proven platform
- High quality sealing
- Flexible
- Easy to use
- Large fiber count

### FIST MODULAR SPLICE CLOSURE

- Micro tube optimized
- Cable type independent
- High cable sizes



#### **SCIL SERIES**

- Three types (SCIL A/B/C) for façade, aerial, pole and underground use
- Intuitive design for rapid installation and easy maintenance
- Accommodates several fiber cable constructions



#### TENIO

- Small fiber count
- Specifically designed for last-mile splicing applications, configurations and form factors
- Tool-less, rapid installation
- Easy maintenance
- Accommodates several fiber cable constructions

If you have design, installation, or troubleshooting questions, find prompt, expert support from a CommScope professional.

SUPPORT CENTER



# Built for fast deployment and to stand the test of time

With more than 30 years of experience—and satisfied customers around the world—CommScope is a leader in FTTX and FTTH solutions.

### Innovative gel sealing technology protects your connections

One of our closures' innovative features is gel sealing, which protects the valuable connections inside from water, sand, dust and other contaminants that could degrade optical performance. Its self-healing capability allows multiple re-entries, which makes maintenance and adding extra customers fast and easy, even after many years.

Our superior gel sealing technology:

- Makes closures suitable for aerial, pedestal and underground (manhole or direct buried)
- Is available for spliced and connectorized closures
- Is compatible with all fiber types (G652D G657 series)
- · Facilities fast, reliable closure re-entry and re-sealing

Our closures are designed to work reliably in harsh outside plant conditions. They are tested for:

- · Moisture resistance—under water and under pressure
- · Cable manipulation—axial pull, torsion, flexing, and impact
- · Optical torsion and bending
- · Resistance to vibration, temperature, chemical and UV rays

All closures are based upon—and compliant with—international standards, including IEC, ITU, and ASTM.

Contact us to find the find the best closure option for your application.

**CONTACT US** 



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