Apex® Fiber Optic Splice Closure

What is Apex?

Engineered for speed, scalability and reliability, Apex is the next generation of sealed splice closures. Whether you need a compact footprint or ultra-high density, Apex delivers a consistent, time-saving installation process that grows with your capacity needs. Designed for fast deployment and long-term performance, these closures help maximize fiber count and streamline organization.

Where can they be used?

Direct bury, handhold, aerial applications or on poles/walls

What sizes are available?

The Apex Fiber Optic Splice Closure family includes five models, each designed for different fiber counts and applications.

The Apex X-1 supports up to 144 single fusion splices, 432 mass fusion splices with standard ribbon, or 864 splices with rollable ribbon fiber types such as AFL's SpiderWeb Ribbon® (SWR®). This compact model measures 19 x 9 inches (48 x 23 cm).

The Apex X-2S is capable of up to 288 single fusion, 864 mass fusion with standard ribbon or 1,728 using mass fusion with rollable ribbon fiber types, such as SWR. The closure measures 20 x 12 inches (51 x 30 cm).

The Apex X-2 offers capacity for up to 576 single fusion splices and can accommodate 3,456 fiber splices when using mass fusion with rollable ribbon fiber types SWR in a 25 x 12 in. (64 x 30 cm) long dome.

Caption: Apex X-1 Sealed Splice Closure

The Apex X-3 supports up to 864 single fusion, 2592 mass fusion with standard ribbon, or 5184 mass fusion with "rollable ribbon" fiber types, including SWR. This large model measures 32 x 14 inches (81.3 x 35.6 cm).

Finally, the Apex X-3H provides the highest capacity in the series, supporting up to 6,912 splices using mass fusion with SWR or 2,592 with standard ribbon. This model shares the same large dimensions as the X-3 at 32 x 14 inches (81.3 x 35.6 cm).

How does Apex handle conventional cable technologies like loose tube, central tube ribbon or loose tube ribbon?

All Apex closures are designed to accommodate a wide range of conventional cable technologies – including loose tube, central tube ribbon, and loose tube ribbon cables – using a single gel wedge that fits all sizes, eliminating the need for a separate sizing kit. Each model features a molded slack storage basket that efficiently manages buffer tube slack, and universal splice trays that support various cable types. AFL's expertise with All-Dielectric Self-Supporting (ADSS) cables ensures reliable performance across the Apex family.

Do you have recommendations for different cables types, fiber counts, etc.?

For loose tube cables with 12-fiber tubes, it's recommended to keep each Apex X-2 closure to a maximum of 288 fibers to prevent excessive packing density. The Apex X-1 and X-2S are ideal for lower fiber counts, such as micro cables with smaller-diameter tubes – typically those with 24 fibers or more per tube. For higher fiber counts, the X-2, X-3 and X-3H models provide the best fit.

When working with flat matrix ribbon configurations—such as central tube ribbon or loose tube ribbon designs—it's best to half-load the splice trays to prevent basket congestion. With this approach, the X-1 and X-2S models can accommodate up to 432 and 864 fibers, respectively, while the X-2 and X-3 closures support up to 1,728 and 2,592 fibers, respectively. The X-3H is specifically optimized for extremely high ribbon counts.

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For rollable ribbon fibers, such as AFL's SWR, users can take full advantage of the splice tray's maximum density. This design is particularly effective in the X-3 and X-3H closures, which support the highest splice capacities.

Finally, all Apex models support applications through the use of multi-drop entry kits. These allow multiple drop cables—such as AFL's Titan RTD® flat drop tails and RTD Terminals and Drop Connectors – Powered by Prodigy®—to be spliced within a single closure for streamlined network configurations.

How are the splice trays arranged?

When developing Apex, the engineering team's goal was to ease access to splice trays, knowing this has been an issue. The team designed them in a hinging array that automatically lock when tilted up, allowing easy access to splices and slack storage which is underneath the splice trays.

The splice modules are universal and hold up to 24 single fusion or 12 mass fusion double-stacked when using SWR, or 6 mechanical splices as well as devices such as PLC splitters.

The X-3 and X-3H offer the highest tray capacity (up to 8 trays in X-3H) and advanced slack management for high-count installations.

Are Apex parts repairable or replaceable?

All components that could potentially be damaged in the field can be user replaced. For the cable sealing, both the inner base gel and the outer wedge can be ordered separately as needed for replacement. The dome to base seal O-ring, while captive to the dome, is secured to the dome with several Phillips head plastic screws. If the O-ring becomes damaged, these screws can be removed, and a replacement O-ring installed. Externally, there are replacement kits for both the locking ring and the dome if either are damaged.

* These components were tested extensively to resist damage from dropping or heavy impact, even at extreme hot and cold temperatures.

Why should I buy Apex over a competitor's product?

Apex sealed closures save installers and end-users time, lowers costs, improves network reliability and increases usable space.

Where can I find more information on Apex, see a demo unit or request a trial?

Visit our website at www.AFLglobal.com/Apex to explore all currently available resources, including product specification sheets, installation instructions, feature-and-benefit videos, and an interactive 3D model that allows you to pan, zoom, and rotate the product.