OmniReach® FTTX Solutions

DLX™ Fiber Optic Connector

ADC KRONE's DLX™ Fiber Optic Connector is a "Next Generation" hardened fiber optic connector designed to provide a cost-effective solution for connecting outside plant (OSP) fiber networks. The DLX connector is a miniature hardened connector used to speed residential connection in Fiber-to-the-Premises (FTTP) cabling networks. The connectors are strategically located in the distribution network to facilitate service connection, maintenance and reconfiguration of subscriber services. Connectors are usually staged at the street outside a residence to facilitate easy access and connection to the residence at a later date. The rugged connectors protect against extreme temperature, moisture, ultraviolet radiation, chemical exposure and other harsh conditions found in the outside plant. Rugged connectors provide a watertight seal and are typically installed in multi-port fiber terminals or closures located on the street.

DLX connectors may also be installed in the optical network terminal (ONT) equipment located at the premises. The hardened connectors are compatible with other hardened connectors or non-hardened SC adapters mounted on the ONT enclosures.

DLX drop cables are connectorized in the factory with rugged connectors so that a technician, who need not be an expert in fiber splicing, can quickly install the drop cable between the terminal and the home. The DLX connector system consists of preconnectorized cable assemblies, terminals and converters that provide a plug-and-play solution for connecting between terminals at the street and at the residence. The DLX connectors also allow simplified testing during installation, easy connection during growth phases and maintenance access in the event of trouble or during service upgrades.

TECHNICAL DATA

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Next Generation Connector

ADC KRONE's DLX™ Fiber Optic Connector System is a next generation system consisting of connectors, adapters, converters, terminals and pre-connectorized cable assemblies. The connector system provides a next generation plug-and-play solution for connecting drop cables to the residence. The DLX adapter offers a significantly smaller footprint that enables the construction of smaller closures and smaller multi-port terminals. Smaller terminals result in the reduction of space required on poles, in hand holes and in an ONT. The space saving benefit of the DLX connector system is a major advantage over previous generations of hardened connectors.

The DLX connector is significantly smaller in size than previous hardened connector systems allowing drop placement in smaller ducts.

The connectors require a much smaller hole for passing drops through walls, thus, the next generation connector is much less intrusive when routing through walls in structures.

The DLX connector is available with a variety of cable options allowing the user to easily specify the appropriate cable for aerial, underground or indoor/outdoor application.

The DLX connector is completely backward compatible with the OptiTap® hardened connector system using a simple converter. The DLX connector is also backward compatible with SC connectors and adapters using a converter to quickly connect DLX connectors to SC adapters or SC connectors to the DLX adapter. This provides the user with significant flexibility when placing drops in a residential environment.

DLX Connector, DLX Adapter and SC/APC Connector

Features and Benefits

- Smaller adapter enables smaller closure and smaller multi-port terminal, takes up less space on poles, in hand holes and in an ONT.
- Smaller connector drops fit in smaller conduit, requires smaller hole in dwelling, less intrusive entry into the residence, easier and more secure connection.
- ADC KRONE's full sized hardened adapter converter is backward compatible with the OptiTap® connector system, using DLX connnector to full-sized hardened adapter converter.
- SC angled polish converter is backward compatible with SC connectors and adapters, using DLX connector to SC adapter converter. Allows flexibility in MDU cabling, reduces time and cost for connecting residential fiber.
- Variety of cable options allow cabling choice to be optimized for outdoor aerial or underground applications, or for indoor/outdoor applications.

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DLX™ Fiber Optic Connector

DLX Connector

The DLX™ Fiber Optic Connector system includes new miniature hardened connector and adapter designed to mate with a standard SC connector in the DLX adapter. In addition, the DLX connector can plug into any standard SC adapter to provide a low loss optical connection. The connector design is based on standard SC singlemode ferrule and spring assembly in a miniature rugged body. The connector is designed with a dual-locking feature that includes a push-pull detent engagement and twist-lock secure retention. The connector has a keying feature to allow it to be fully seated in the adapter in only one orientation, therefore, ensuring proper alignment and mating of 8 degree APC ferrules. Once the connector is pushed inside the adapter and passed the detent latch, the user will feel a distinct latching engagement within the adapter. Screwing the coupling nut to the adapter provides a firm and long-term secure connection. The connector contains an O-ring to provide a watertight seal when engaged with the adapter. The connector is supplied with a protective cap with an integrated pulling eye to protect the end face during installation. The DLX connector design is offered with a choice of cables thus providing the user with flexibility in selecting the appropriate cable for the application.

DLX Connector

DLX Adapter

The DLX™ Fiber Optic Connector system features new miniature hardened adapters. The adapter design is a heavy duty plastic case environmentally sealed for extreme weather conditions. One side of the adapter receives the hardened DLX connector and the other end is designed to receive a standard SC connector plug. The SC side of the adapter provides a rugged stationary SC receptacle per standard industry specifications. The DLX adapter has an opening designed specifically to receive the DLX connector and to provide a sealing surface for the connector O-ring.

The adapter's inner body holds two retainers and a split sleeve using snap latches and provides the plug with both push-pull and twist-lock engagement. The inner body also contains detent latch and alignment features that guide and hold the DLX connector inside the adapter. A jam nut and O-ring are used to mount the adapter onto a panel or bulkhead. Keying features on the outside of the adapter keep it from rotating in a panel.

DLX Adapter

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DLX™ Fiber Optic Connector

DLX Connector System Compatibility and Intermateability

The DLX™ Fiber Optic Connector system is compatible and intermateable with both the OptiTap® hardened connector system and the SC non-hardened connector system. Intermateability is achieved through the use of simple converters that may easily be installed in the field.

The DLX connector to full-sized hardened adapter converter consists of a converter housing and a nut that easily slide over the DLX connector in the field. The converter housing is threaded onto the DLX connector to secure it in the proper position for interface to the full-sized hardened adapter. The nut sits on the converter housing and is used to provide the threaded locking interface to the full-sized hardened adapter.

DLX Connector to Full Sized Hardened Adapter Converter

The DLX connector to SC adapter converter consists of a converter housing that can easily be threaded onto to the DLX connector in the field. The DLX connector to SC adapter converter then allows the assembly to be connected to a standard SC adapter. The DLX connector to SC adapter assembly provides a unique locking feature that seats the assembly into the SC adapter with a push-pull locking engagement.

DLX Connector to SC Adapter Converter

An SC connector to DLX adapter converter is available to provide an interface of a standard SC connector into the DLX adapter. A threaded nut is installed over the connector and the converter is snapped onto the SC inner body. The converter assembly simply threads into the DLX adapter.

SC Connector to DLX Adapter Converter

OptiTap is a registered trademark of Corning Cable Systems Brands, Inc.

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DLX™ Fiber Optic Connector

Mini Multi-Port Service Terminals (MSTs) with DLX Connectors

The Mini MST incorporates DLX™ hardened adapters resulting in a much smaller terminal package than available with previous generations of connectors. Mini MSTs are environmentally sealed to withstand all the rigors of the OSP environment. The terminals are factory-terminated with individual connectors and provided with a stub cable for splicing in the field.

The Mini MST is available in 4-, 6-, 8- and 12-port configurations. The stub cable lengths range from 50 feet (15.24m) to 2000 feet (609.6m) long. The terminal connector ports are clearly marked with numbers for quick drop cable connections, and the hardened adapters are factory cleaned and compatible with DLX connectors.

A universal mounting bracket is supplied with each Mini MST. The USB provides a flexible means of installing the terminal in pole-mount, strand-mount and below ground hand-hole-mount applications using standard fasteners.

Features and Benefits

- Mini MSTs with DLX adapters are much smaller than previous multi-ports, take up less space on the pole and reduce space requirement for hand-holes
- Factory terminated high quality and high performance connectors
- Mini MSTs are terminated using reduced bend radius fiber to ensure high performance within the miniature package
- Flexible choice in number of ports; 4-, 6-, 8- or 12-port terminals
- Flexible choice in cable lengths: 50' (15.24m) to 2000' (609.6m)
- Universal mounting bracket supplied with each terminal facilitates installation in pole-, strand- and hand-hole mounting

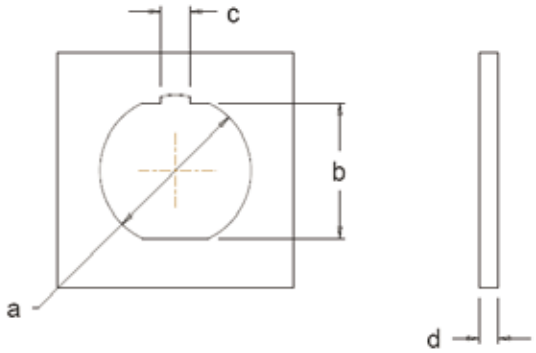
For configuration assistance, please contact the EMEA Technical Assistance Center or your local ADC KRONE sales represantative

Specifications

Primary Requirements:	GR-326 Generic Requirements for SM Optical Connector GR-3120 Generic Requirements for Hardened Fiber Connector TIA/EIA 604-3a Optic Connector Intermateability Standard Type SC GR771 Generic Requirements for Fiber Splice Closures GR-63 Generic Requirements for Network Equipment Building Standards GR-20 Generic Requirements for Single Mode Fiber Optic Cables
Minimum Hole Size for Connector:	0.625 inches (15.88mm)
Latching:	Keyed alignment Dual latching, push-pull detent, twist-lock secure long term connection
Physical Contact:	Angled Polished Contact (APC), standard 8-degree angle
Insertion Loss:	≤ 0.35dB
Reflection:	≤ - 65dB
Retention Force:	25lbs (111.25N)

DLX Adapter Mounting

	Dimensions (mm)	
	Min	**Max**
a	16.05	16.25
b	14.43	14.63
c	3.06	3.26
d	1.00	3.00



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TECHNICAL DATA

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