

Fiber**Express**<sup>®</sup> Brilliance<sup>®</sup>

# Universal

FIELD-INSTALLABLE FIBER OPTIC CONNECTORS

Product Bulletin  
PB139

The no-epoxy, no-polish, no-crimp field-installable connectors that are brilliant in design and universal in implementation to make fiber field termination faster, easier and better.

## FASTER

- Faster termination in as few as 5 seconds
- Faster deployment with no crimping

## EASIER

- Easier installation with no epoxy or polishing
- Easier ordering and inventory

## BETTER

- Better termination yield with integrated VFL
- Better efficiency with up to 5 reterminations



Our End-to-End Expertise  
Your End-to-End Solution

## Faster. Easier. Better.

Simple Termination in as Few as 5 Seconds

### Universal for all connector types

- LC
- SC
- SC/APC
- ST
- Duplex clips

### Universal for all fiber types

- OM1
- OM2
- OM3
- OM4
- OS1/OS2

### Universal for all cables

- 250  $\mu\text{m}$  looSetube<sup>1</sup>
- 900  $\mu\text{m}$  tightbuffered
- 2 mm jacketed<sup>1</sup>
- 3 mm jacketed<sup>1</sup>

### Universal for all applications

- Backbone, horizontal, FTTX
- Data Center and LAN
- Broadcast
- Industrial
- Defense
- Telco/MSO

After inserting the cleaved fiber into a connector, it's important to maintain a slight bow in the fiber before activating the termination and securing the boot. This helps to ensure pressure for proper glass-to-glass mating.



### Improve Termination Yield

Included in the FX Brilliance Precision Installation Kit, the Belden Support Handle with integrated Visual Fault Locator (VFL) injects visible laser light into the connector to instantly identify successful termination before testing.

### Integrate with 100% Confidence

As an established global leader in mission-critical signal transmission with extensive fiber optic expertise, Belden ensures support for projects of any size or complexity with 100% production testing backed by a 100% yield guarantee<sup>2</sup> and a best in class 25-year warranty<sup>2</sup>.

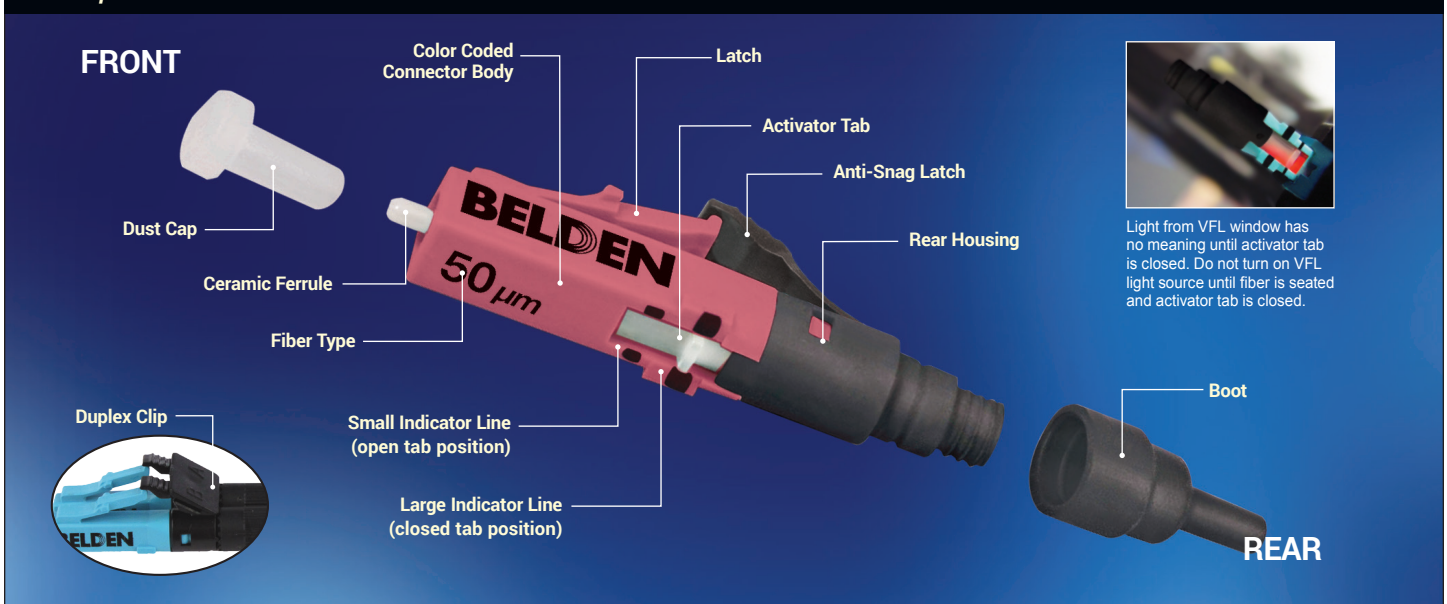
### Eliminate Cut-Offs

Unique no-crimp installation means connectors may be re-terminated up to 5 times, even after testing, which improves efficiency and eliminates connector waste.

### Reduce Training and Tooling Expense

With support for all connector, fiber and cable types, FX Brilliance Universal Connectors are ideal for the latest 10G and future 40G/100G networks. With one universal installation technique and toolkit, training and tooling expense is reduced so installers can easily handle any job.

### FiberExpress Brilliance Connector Detail



Light from VFL window has no meaning until activator tab is closed. Do not turn on VFL light source until fiber is seated and activator tab is closed.

1. 250  $\mu\text{m}$ , 2 mm or 3 mm Boot is sold separately.  
2. Terms and conditions apply

Our End-to-End Expertise.  
Your End-to-End Solution.




## Belden FiberExpress Brilliance Installation Kits



Available Accessories Include: Support handle, VFL, Precision Cleaver, and Fiber Preparation tools.

FiberExpress Brilliance Universal is the industry's leading connector for saving time, labor and material costs.

The only connector you need.

 When using the external VFL to determine successful termination, bright light in the connector window after closing the activator tab may indicate a poor connection and the need to reterminate the Brilliance connector, which can be reterminated up to 5 times.

**Stand out with Belden Training**

Belden's BICSI-accredited IBDN-749 course covers everything from the basics of fiber safety to advanced topics like test methodologies and troubleshooting with automated Optical Loss Test Sets (OLTS). The hands-on FX Brilliance Universal connector termination training allows students to master the art and feel of fiber termination from expert instructors.

### Improve Installer Comfort, Repeatability and Performance

FX Brilliance Universal connectors can be terminated with no specialized tools, but the installation kit includes the universal tools necessary to prepare the fiber and provide a stable work platform for optimal installation results.

The **Support Handle** facilitates connector handling and maintains the bow in the fiber prior to termination. Easily integrating the VFL and adapter cords, it accommodates varying real-world installation positions for both right and left handed installers.



The **Precision Cleaver** achieves superior quality cleaves, even in high volumes, exceeding TIA requirements and eliminating the need to verify every cleave with a microscope.



The latest auto-rotating blade design provides worry-free operation for up to 36,000 cleaves to eliminate cleaver maintenance.

The **Rugged Installation Pouch** holds everything you need to successfully prepare and terminate fiber connectors. It comes fully loaded with cutting and stripping tools, safety and cleaning supplies, and even installation and troubleshooting videos and guides. The pouch's simple design easily adapts to any installation environment—it can be shoulder strapped, belt mounted and hand held.



Installation Pouch



## Ordering Information

When using OM4 fiber, choose Erika Violet Connectors rather than Aqua to avoid confusion with OM3 fiber and prevent the possibility of inadvertently connecting the two fiber types, which can cause a loss of bandwidth and increased bit errors.



Hermetically sealed contractor pack ensures connectors remain fresh and contaminate free



FXBUCLLDB25N and FXBUCLSDB25N Duplex Clips

### FiberExpress Optical Fiber Solutions Ordering Information

Belden FX optical fiber solutions consist of a full range of cable, patch panels, patch cords, cable assemblies, connectors and work area outlets that enable fast, seamless and reliable fiber network deployment with pre-validated components that ensure interoperability for reduced troubleshooting. Request a Belden Optical Fiber Catalog at [www.belden.com](http://www.belden.com) for our complete product offering.

### FX Brilliance Universal Connectors

Description	Belden Part Number			
	Multimode, OM1	Multimode, OM2	Multimode, OM3/OM4 - Aqua	Multimode, OM4 - Erika Violet
LC with 900 µm Boot, 25 per package	AX105200-B25	AX105201-B25	AX105202-B25	AX105252-B25
SC with 900 µm Boot, 25 per package	AX105205-B25	AX105206-B25	AX105207-B25	AX105253-B25
ST with 900 µm Boot, 25 per package	AX105210-B25	AX105211-B25	AX105212-B25	AX105254-B25

Replace -B25 with -S1 for sample 1 per package.

Description	Belden Part Number			
	Singlemode, OS2		Singlemode, OS2/APC	
	1 per package	25 per package	1 per package	25 per package
LC with 900 µm Boot	AX105203-S1	AX105203-B25	-	-
SC with 900 µm Boot	AX105208-S1	AX105208-B25	AX105209-S1	AX105209-B25
ST with 900 µm Boot	AX105213-S1	AX105213-B25	-	-

FX Brilliance Universal includes a boot for 900 µm Tight Buffered fiber. Boots for 2 mm/3 mm Jacketed fiber are sold separately.

Description	Belden Part Number
250 µm Boot, bag of 25	FSBUBO250B25N
2 mm jacketed Boot, bag of 25	AX105214-B25
3 mm jacketed Boot, bag of 25	AX105215-B25

Description	Belden Part Number
LC Duplex Clip (Black), 25 per package	FXBUCLLDB25N
SC Duplex Clip (Black), 25 per package	FXBUCLSDB25N

### FX Brilliance Installation Kit

Description	Belden Part Number
Precision Installation Kit (Basic Kit, Fiber Preparation Tools, Precision Cleaver and Visual Fault Locator)	AX104271

### FX Brilliance Accessories

Description	Belden Part Number
Precision Cleaver	AX104286
Precision Cleaver Replacement Blade (for FC-7 cleaver)	AX104293
Precision Cleaver Replacement Blade (for FC-7R cleaver)	AX104593
Support Handle with Adapters	AX104276
Support Handle LC Adapter	AX104289
Support Handle SC Adapter	AX104290
Support Handle ST Adapter	AX104291
Visual Fault Locator (VFL-250) with Adapter Cords	AX104283
Visual Fault Locator (VFL-125) LC-LC Adapter Cord	AX203567
Visual Fault Locator (VFL-125/250) LC-SC Adapter Cord (valid for ST also)	AX203568
Visual Fault Locator (VFL-250) SC-SC Adapter Cord (valid for ST also)	AX203569
Visual Fault Locator (VFL-125) LC-SC/APC Adapter Cord & Support Handle SC/APC Adapter	AX203895
Visual Fault Locator (VFL-250) SC-SC/APC Adapter Cord & Support Handle SC/APC Adapter	AX203930
Fiber/Cable Stripper	AX103151
Pen Marker	AX104279
Refurbishing Materials (80 alcohol wipes and a black pen marker)	AX100951
Safety Glasses	AX104282
Tweezers	AX104278
Waste Bottle	AX104281