

## Introduction

### Belden IBDN FiberExpress Systems

Optical fiber systems offer many benefits: high bandwidth and transmission speed, the potential for network growth, extended reach, fault tolerance, greater data security and support for Gigabit and multi-Gigabit protocols and networked applications. Beyond these traditional benefits, however, Belden offers the *FiberExpress* Solution, a complete end-to-end cabling system supporting both centralized and fiber-to-the-desk topologies, as well as backbone and campus cabling configurations. Our *FiberExpress* Solutions meet or exceed all applicable TIA/EIA, ISO/IEC and IEEE standards and offer:

- Reduced design complexities
- Greater deployment facility
- Quick installation
- Increased flexibility
- Cost effective pricing

### Primary *FiberExpress* System Components

Key components of the *FiberExpress* Systems are summarized below and are found on the catalog pages that follow.

#### Optimax® Connectors

Optimax Connectors are a revolutionary field-installable optical fiber connector. The unique design of the patented mechanical splice body of Optimax incorporates a factory mounted fiber stub and a pre-polished ceramic ferrule. This technology consistently provides a fast, secure and reliable LC, SC or ST Compatible optical fiber termination for multimode or single-mode cable. All critical steps are performed in the factory, ensuring a superior quality connection every time.



#### The *FiberExpress* Manager

The *FiberExpress* Manager makes fiber management easier than ever before. Designed to streamline termination, connection and maintenance activities, the *FiberExpress* Manager uses a scalable, modular approach to adapt to a wide variety of situations. The total system provides extra high connection density while facilitating cable routing and patch cord management. The *FiberExpress* Manager is adaptable for almost all situations, traditional field termination or pre-terminated modules, which reduces design complexity and increases deployment efficiency.



#### Extended Reach Optical Fiber Cables

Extended Reach Optical Fiber Cables propel your network into the future of cable technology with our multimode *FiberExpress* FX300, FX600 or FX2000 series. These series were developed to meet the existing needs of networks at 1 Gb/s (Ethernet, 1000Base-SX and 1000Base-LX) and new networks at 10 Gb/s (Ethernet, 10GBase-S and 10GBase-LX4). These series offer better reach for laser-based systems. For 1 Gb/s Ethernet at 850 nm (VCSEL), the FX300 and FX600 series provide a range of 984 ft (300 m) and 1,968 ft (600 m), respectively. For 10 Gb/s Ethernet at 850 nm (VCSEL), the FX2000 series provide a range of 984 ft (300 m) for 10GBase-S where all of multimode series can offer a 984 ft (300 m) range at 1300 nm (laser) for 10GBase-LX4. All of this while assuring total compatibility with LED systems and FDDI fiber installation cables. Our single-mode cable offering enhances the options for longer distance support — up to 40 km — for any of the Gigabit Ethernet applications.



#### The *FiberExpress* Bar

The *FiberExpress* Bar is an extremely compact, modular and resilient linking panel. Resembling a power bar, it offers 6 or 12 fibers, pre-terminated with an SC, SC duplex, ST-compatible, LC, MT-RJ or FC connectors



and a cord terminated with a multi-fiber MPO connector — all of which are factory verified. The *FiberExpress* Bar can adapt to all kinds of properties or developments, and can serve as a consolidation or linking point. It's available in both single-mode and multimode media.

For the ultimate in quick, easy and reliable optical networking we also offer the *FiberExpress* Pre-connectorized System. Based on the concept of building blocks, the complete range of pre-terminated *FiberExpress* components bring flexibility to the design stage. The in-factory fabrication and verification of pre-terminated connections ensures the high-performance and high-quality of the product. These products are "plug and go" and their deployment requires no specialized tools — you can deploy 12 fibers in the same amount of time it takes to connect a power cord to a standard electrical plug. This pre-terminated technology will help to preserve the initial investment by its ability to be re-deployed while always ensuring quality results.

### Quality Installation and Service

All Belden IBDN systems are designed, installed and field-tested by fully-trained and certified system contractors and integrators to further assure superior systems performance. They are also backed by a strict System Certification and Warranty Program.

### System Certification and Warranty Program

The Belden IBDN Certification Program is a rigorous process that ensures that your Belden IBDN 'Certified' System is composed of Belden IBDN components, designed and installed by a factory-trained Certified System Vendor. Belden IBDN 'Certified' Systems are supported by a series of warranties that surpass conventional product warranties. Certification adds important end-to-end system performance guarantees and ensures full compliance with cabling industry standard specifications — even after system installation (Installable Performance®). A 25-year Product Warranty and a Lifetime Application Assurance program accompany each Belden IBDN 'Certified' System installation. These warranty programs include coverage for both parts and labor.