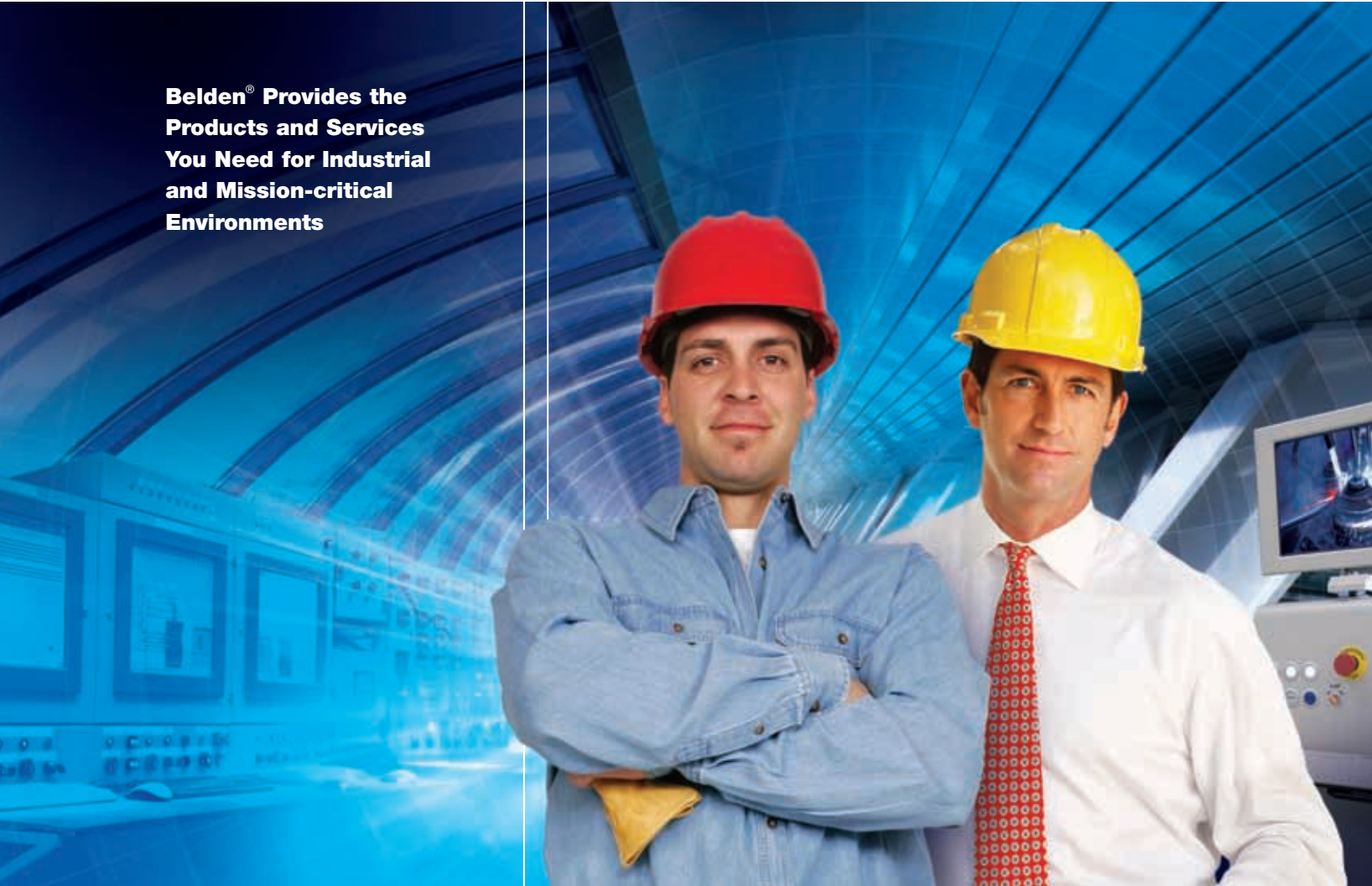




Reliable Solutions for the Industrial Environment

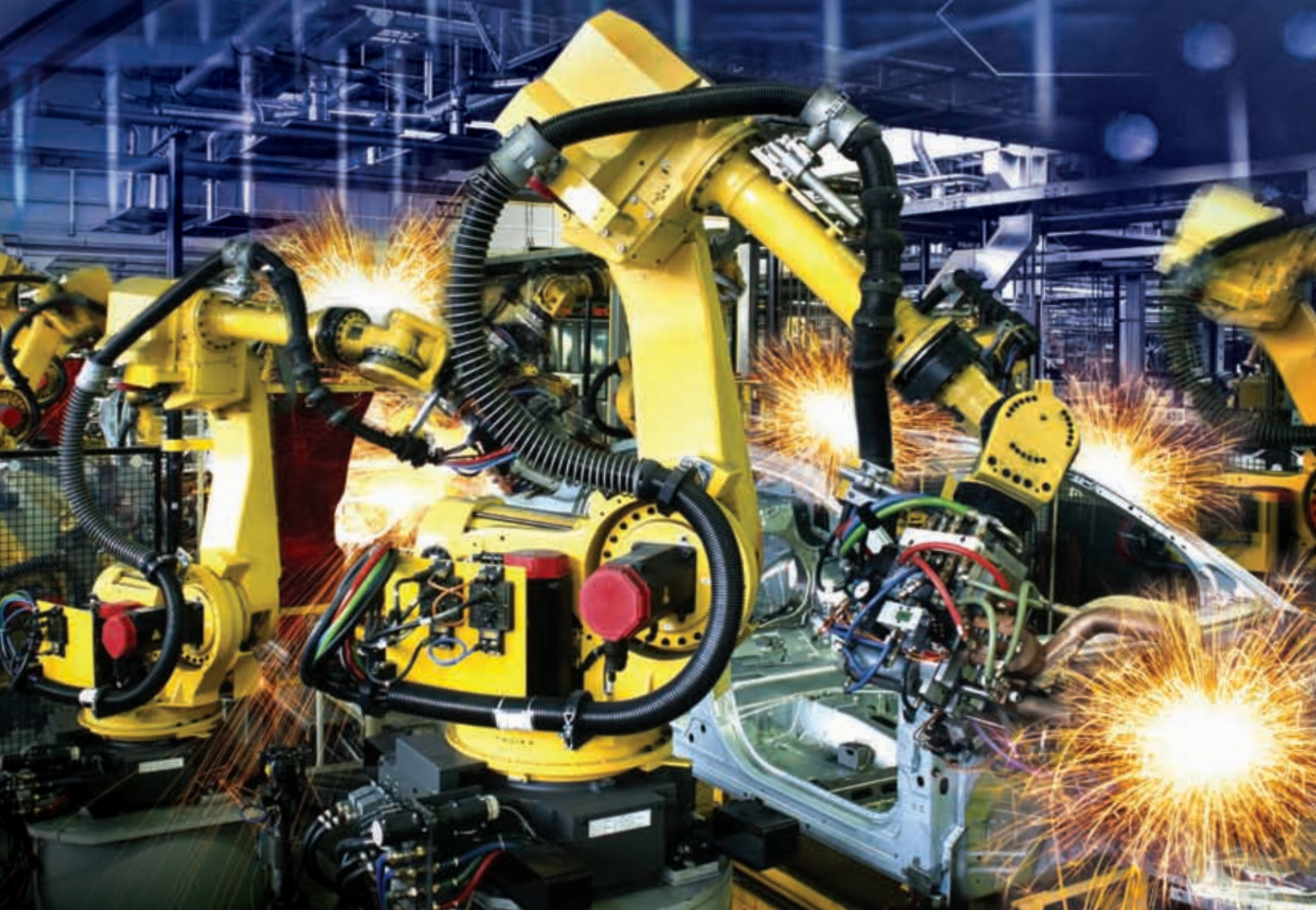
Belden® Provides the Products and Services You Need for Industrial and Mission-critical Environments



Industrial Solutions

Achieving a goal of 99.999% reliability demands products with a proven reputation for reliability – products from Belden.

Belden's Signal Transmission Solutions increase the reliability factor at every critical stage of your process.





More Convenience and More Solutions for Networks in Harsh Environments and Mission-critical Applications

Belden has brought together a comprehensive line of industrial cabling, connectivity and networking devices, offering the most reliable communications solutions for your application. Whether you are networking your devices to the controllers, connecting the controllers to the control room, relaying data between the control room, the engineering department, and remote manufacturing sites – or all of the above – Belden has the products you need to seamlessly connect your communications.

From the petrochemical, automotive, pharmaceutical, power generation, pulp and paper, metals, food and beverage, or general manufacturing plant to the corporate headquarters – and everywhere in between – Belden has your signal transmission solution.

Belden's Synergy Ensures Continuous Performance

With the Hirschmann™ and Lumberg Automation™ product additions to the Belden offering, the Belden *Complete Industrial Solutions* line is uniquely positioned to provide the best end-to-end network and communications infrastructures. Analysts report that a large percentage of unplanned downtime in industrial operations is caused by network infrastructure failure. According to one report, 72% of network faults can be attributed to failure at the OSI (Open System Interconnection) Layer 1 – Physical Media, Layer 2 – Data Link and/or Layer 3 – Network. And this can mean loss of critical data, system downtime or even a catastrophic failure costing hundreds of thousands or millions of dollars.

Belden products and systems expertise means that you can maintain ongoing operations without interruption and costly downtime – in any environment or application.

Here are a few more good reasons why Belden is your best choice for industrial networking, communications and control:

- Belden has the expertise to integrate your industrial and commercial networks.
- Belden products are engineered to perform in tough and difficult environments.
- Belden offers the broadest selection of products for a complete end-to-end solution, so we have what you need.
- Belden sales and engineering professionals can audit, recommend/design, configure and assemble the products and systems to your specific requirements.
- Belden's global manufacturing and distribution network make our products available to you globally.

Belden Products Have a Proven Reliability Factor of 99.999%

At one time or another, switches and cabling systems in industrial installations may have to withstand the destructive effects of extreme temperatures, humidity or moisture, dust, mud, oil and solvents, corrosive chemicals, abrasion, vibration and ultraviolet radiation from strong sunlight. These stressors can wreak havoc on the mission-critical networks tasked with conveying signals between measuring instruments and control devices.

To meet these needs, Belden switches, connectivity and cabling products are designed and tested to ensure reliability in especially harsh or mission-critical environments. Strict statistical process control manufacturing methodologies also assure compliance with ICEA (Insulated Cable Engineers Association), IEEE and Underwriters Laboratories requirements.

Offering Comprehensive Service & Support

Belden recognizes that comprehensive know-how is necessary to ensure an optimized, homogenous solution. We also know that a consultation or a service requires more than just an overview of the technological and manufacturer limitations. It requires a sound knowledge of the specific application and the ability to provide the type of support that is needed – when and where it is needed. It requires the four key service and support areas that are critical to success:

- Network Design
- Training
- Technical Support
- System Performance

For more information on our service/ support offering, including our warranties, please go to the Belden web site at www.belden.com/industrial to locate a Belden sales representative near you.



Belden Products Serve Many Diverse Industries

By using Belden's industrial-grade products and systems, many industries have been able to implement network, communications, and control systems to keep their operations running reliably – with uptime assurance and total peace of mind. Below are just a few examples.

Whatever the environment, Belden keeps many different and mission-critical operations up and running all around the world.

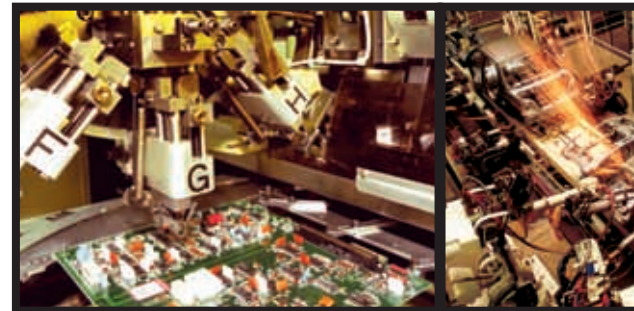
Processing Industries

Safety is critical in all processing operations. Therefore the best defense is an effective and reliable offense – specifying signal transmission products that have been engineered and manufactured specifically for the process environment. Using Belden products, including Hirschmann- and Lumberg Automation-branded products, you can ensure proper and consistent system functionality – even in the most demanding and hazardous applications.



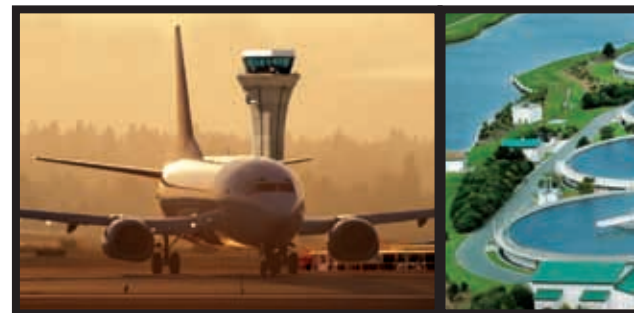
Discrete Manufacturing

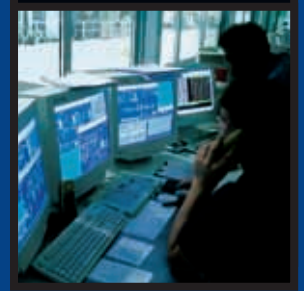
Uptime and dependability of operations are hallmarks of Belden, Hirschmann and Lumberg Automation products. These products are designed to meet and exceed the high demands of our discrete manufacturing customers.



Infrastructure

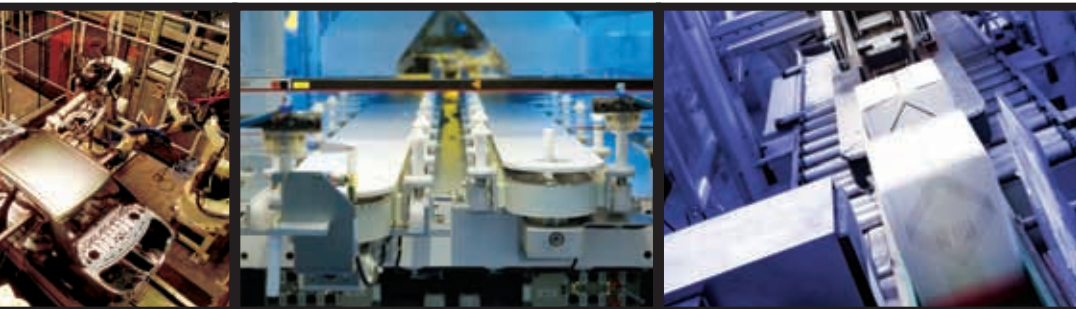
Control, centralized monitoring and network management continue to perform seamlessly in very demanding applications for our most discriminating infrastructure customers. Whether networking a long underground rail tunnel, a large wastewater complex, an airport in the desert, or power generation facilities in the arctic, Belden, Hirschmann and Lumberg Automation products will deliver continuous network availability and bring efficiency to operations.





Applications

- Oil, Gas and Petrochemical Processing
- Oil Drilling and Exploration
- Food and Beverage Processing
- Pharmaceutical Processing
- Pulp and Paper Processing
- Chemical Processing
- Cement and Concrete Production
- Coking
- Mining



Applications

- Industrial Equipment
- Machine Tools
- Semiconductors
- Packaging
- Plastics
- Rubber Products
- Electronic Components
- Medical Devices and Equipment
- Automotive
- Consumer Products
- Fabricated Metals
- Construction and Off-road Equipment



Applications

- Water Supply
- Waste Treatment and Management
- Roadway and Railway Tunnels
- Shipyards and Shipping Vessels
- Pipelines
- Airports
- Bridges
- Rail Yards
- Wind Power

Belden products represent the ultimate in signal transmission quality and reliability.

Belden Solutions for Automation, Process and Control

Corporate Regional Office

Belden's commercial networking products, including products for the corporate office data center, telecommunications room, security offices, conference rooms, training centers, etc., can be linked to the industrial plant using Hirschmann switches and Belden copper and optical fiber network cabling and connectivity products and systems.

Building Management/Security Office

Belden can fulfill all of the cabling needs for building management applications such as HVAC, environmental, and integrated automation systems. Security products include: CCTV camera cable, fire alarm and access control cable, and cable for EVAC systems. In addition, Belden supplies audio/video cable, copper networking cable and connectivity, wireless LANs, enclosures and cable management.

Data Center

Belden's Industrial Data Solutions network cables integrate with the data hub by incorporating a number of other Belden products, such as copper and optical fiber networking connectivity (Ethernet and commercial Category 5e, Enhanced Category 5e, Category 6 and Category 6A cabling systems), wireless mobility systems, enclosures and racks and cable management.

A/V Conference Room

Belden offers a full range of products for this application, including HD video cables, audio and speaker cables, cables for automated lighting, windows and climate controls, networking cables and connectivity, workstation outlets/faceplates, wireless mobility systems and cable ties.

The facility illustrated here represents a typical industrial operation — and the key non-industrial concerns that benefit from Belden products. The opposite page zeros-in on the industrial environment and the Belden products that ensure efficient operations.



Corporate Regional Office



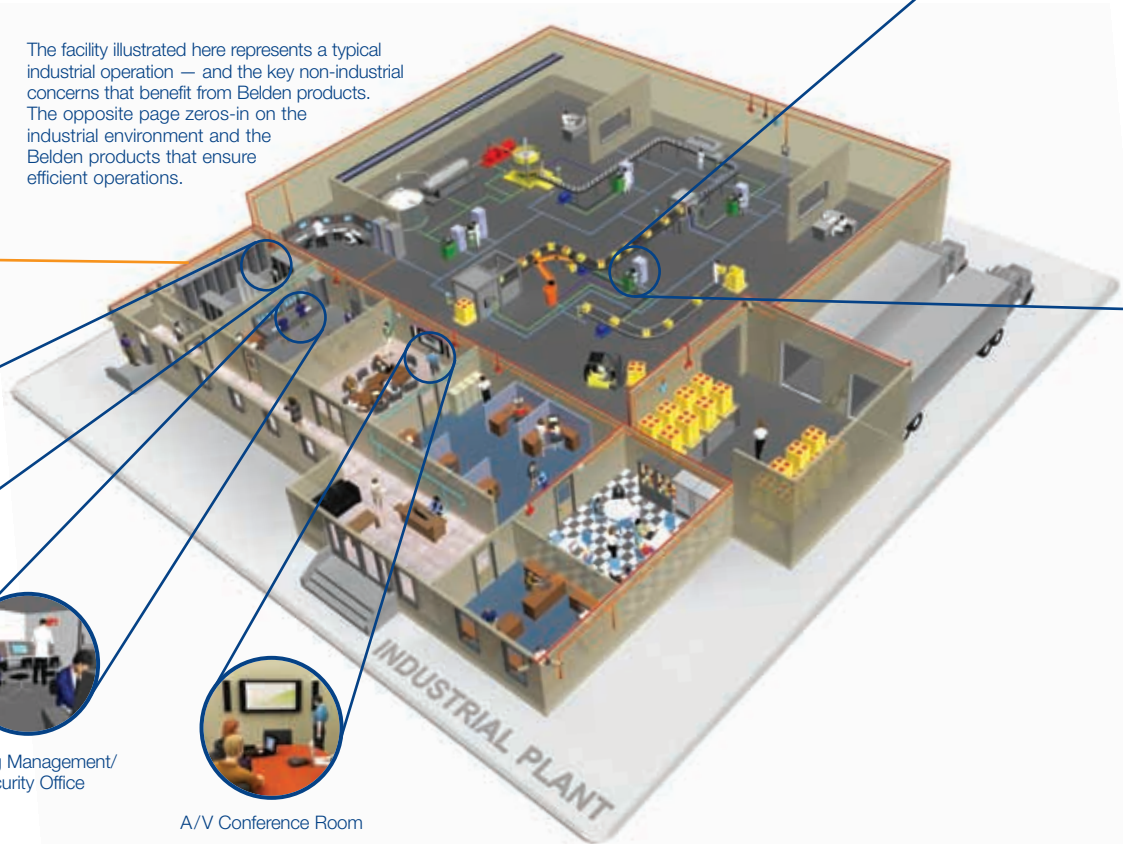
Data Center



Building Management/
Security Office



A/V Conference Room
















Typical Floor Topology for an Industrial Facility

Belden products have been designed specifically for industrial and mission-critical environments, offering optimum reliability in the most demanding and harsh environments. Built upon decades of experience in the industrial arena, Belden cabling, connectivity and networking devices constitute the ultimate in signal transmission quality and reliability.



Cables:

-  Industrial Ethernet cable
-  Network and Protocol cable
-  VFD cable
-  UL Instrumentation cable
-  UL Control and Power cable
-  Belden Infinity® Flexible Automation cable
-  Tray/ER cable
-  New Generation® Security and Alarm Cable
-  Classic Cables and Lead Wire
-  DataTwist® Commercial Networking Cable
-  Brilliance® Audio and Video Cable

Cable Management:

- Racks and enclosures
- Cable managers

Connectivity:

- Fiber optic patch cords, patch panels, adapter strips, connectors
- Copper cordsets, plug kits, surface mount boxes and faceplates
- DIN valve connectors
- Panel mount receptacles
- Distribution boxes
- Field-attachable connectors
- I/O modules
- Taps/splitters
- Overmolded cordsets
- Machine-mount switches

Active networking devices:

- Managed rack-mount switches
- Managed DIN rail-mount switches
- Unmanaged DIN rail-mount switches
- IP67 switches
- Wireless LAN
- Security/firewall/VPN systems
- Office grade switches
- Switch and network management
- Ethernet and Fieldbus media converters

Complete Industrial Solutions for Ethernet

An extensive array of services related to system design, verification and technical support are part of the Belden Complete Industrial Solutions offering – including extended product warranties.

Belden's Complete Industrial Solutions, consisting of fully-integrated, industrial-grade Ethernet active networking devices, connectivity and cabling, are backed by Belden's Ethernet expertise and services related to systems design, verification and technical support – in addition to extended product warranties.

Ethernet Networking Devices

The Hirschmann line of networking devices manage virtually every communication connection requirement among the various layers of the network: information, control and device. The offering includes products that support both copper and optical fiber media, with data speeds as high as 10 Gigabits per second.

Customers worldwide use Hirschmann products for the key benefits they provide:

- Central switch and network management software allows for the integration of network monitoring and reporting to SCADA systems.
- Redundant media (dual data paths), redundant power inputs, fan-less designs and electronic components of the highest quality ensure the highest Mean Time Between Failure (MTBF).
- Switches can be tailored to match customer needs with number and type of ports, port speeds (10 Mbps to 10 Gbps), industry and environmental approval ratings, etc.
- Several options are available for device replacement which ensure the lowest possible Mean Time to Replace (MTTR).
- Industrial profiles in the switch management allow for seamless integration into Siemens or Rockwell control software.
- Standard intuitive interfaces provide a common look-and-feel to all Hirschmann hardware for intuitive and simplified operation.

Hirschmann-branded networking components will ensure hassle-free and secure data communication under the toughest conditions. Key active components include Fieldbus communication hardware and the following industrial Ethernet products:



Belden's matched, end-to-end "Complete Industrial Solution" for Ethernet consists of Hirschmann-branded switches/active network devices, networking software and connectivity and Belden cable.

MACH4000 Backbone Switches

High-performance switches and routers used in large industrial or Triple Play (video, voice and data) networks with high bandwidth and availability requirements.

MACH100 Control Room Switches

For office/workgroup applications not requiring an industrial design, this family of high-performance switches provides an optimal connection to the backbone.

MICE Modular Switches

A highly flexible line of switches and media modules for centralized or distributed arrangements. The hot-swap modular construction provides ability to handle any requirement while providing the utmost in network scalability.

RS Compact Switches

These compact switches are configurable to customer specs; a complete rail product portfolio with or without management functionality for any high-temperature and port density requirement.



OCTOPUS 67 Switches

A vibration and waterproof solution with standardized M12 technology; ideal for extreme conditions and applications calling for an "enclosure-less" solution.

SPIDER Field Level Switches

Allows for an economical, yet hardened industrial Ethernet solution.

EAGLE Security Appliances

Provides firewall and VPN access to the network, ensuring controlled access to the devices on the network.

BAT Wireless LAN Access Point/Client

A complete radio and antenna system for wireless communications in an industrial environment; provides flexibility and mobility with maximum security.

HiVision Network Management

Software system maps and manages the network and displays the complete hierarchical structure and topology for configuration, diagnostics and monitoring functions in real time.

RSR and MACH1000 Ruggedized Switches

Switches for extreme thermal and RFI/EMI-prone conditions that can be found in applications such as substations, military, trains and ships.

Ethernet Connectivity

To provide the interface between programmable logic controllers (PLCs), processors, industrial computers and other intelligent devices, a line of superior performing, industrial-grade Ethernet cordsets and patch cords is offered. This industrial-grade Category 5e product line centers around the use of Belden's exclusive Bonded-Pair cable technology in which the individual insulated conductors of the cable pairs are bonded together along their longitudinal axis to assure uniform conductor-to-conductor spacing and maximum electrical integrity – even when subjected to the rigors of installation and the harsh factory floor environment. These chemically- and temperature-resistant cables are then combined with industrial-grade RJ45 and M12 waterproof IP67 overmolded connectors to provide maximum cordset/patch cord durability.

Cable construction:

- 2- or 4-pair UTP/Bonded-Pair configurations
- 24 AWG stranded tinned copper conductors
- Polyolefin insulation
- PVC or ultra-rugged TPE jackets



Connectivity combinations:

- RJ45 to RJ45
- RJ45 to Micro (M12)
- Micro (M12) to Micro (M12)
- RJ45 to Micro (M12) Panel Mount Receptacle

A unique Category 5e High-flex Industrial Ethernet cordset is also available in either a 2- or 4-pair UTP/Bonded-Pair configuration with 24 AWG stranded copper alloy conductors, polyolefin insulation and a TPE jacket. This product is warranted to no less than 10 million flex cycles at 20X OD and 1 million flex cycles at 10X OD.



Complete Industrial Solutions for Ethernet (continued)

Belden offers optical fiber and Category 5e and Category 6 copper cables for Ethernet, including a wide range of device-level protocol cables.

Belden Industrial Ethernet Cables

TrayOptic®/FiberExpress® Fiber Cables and DataTuff® Industrial Ethernet Cables Mean Reliable Ethernet Transmissions

The reliability of your Industrial Ethernet network is in large part dependent on the cable infrastructure since transmission errors can lead to downtime — and even safety issues.

Don't confuse commercial cables with industrial cables; commercial products are not designed to withstand industrial environments. Belden understands the critical nature of your application and has designed its Industrial Ethernet cables to provide top performance, despite the harsh, demanding nature of the environment. Belden has the right cabling solution, even if your cable is exposed to extreme conditions, including:

- Oil, chemicals, as well as water immersion
- UV/outdoor exposure
- High and low temperature variations
- Abrasion, crushing or cut-through
- Noise — EMI/RFI (electromagnetic interference or radio frequency interference)

Belden's Industrial Ethernet product line is primarily comprised of the following cable offerings: TrayOptic and FiberExpress optical fiber cables and DataTuff copper cables.

TrayOptic Heavy-duty Indoor/Outdoor Laser-optimized Optical Fiber Cables

TrayOptic Indoor/Outdoor Fiber Optic cables are designed for the industrial environment and feature a water-blocking agent for even greater protection. They also incorporate Laser Optimized Fiber to handle Gigabit Ethernet light sources and any expanded bandwidth requirements. They are suitable for use in both risers and trays and available in 2- to 72-fiber constructions.

FiberExpress Optical Fiber Cables

2- or 6-fiber cables in tight-buffered 62.5 μm (FX300) and 50 μm (FX600) multimode constructions are suitable for use in plenums. Single-mode constructions feature either 2- or 6-fiber constructions.

DataTuff Category 5e and 6 cables meet the respective requirements of TIA/EIA 568.B, ISO/IEC 11801 and many are also compliant with EtherNet/IP™. The products are tray-rated and are comprised of 2-pair and 4-pair designs with stranded and solid conductors.

DataTuff Category 5e and Enhanced Category 5e Twisted Pair Cables

Unshielded and shielded with heavy-duty oil- and UV-resistant jackets.

DataTuff Category 6 Twisted Pair Cables

Unshielded and shielded UTP cables with heavy-duty oil- and UV-resistant jackets.



■ DataTuff Upjacketed and Armored Cables

Suitable for the more extreme environments. Most DataTuff cables feature Belden's patented Bonded-Pair technology, an unshielded twisted pair construction that affixes the conductor insulation of the unshielded twisted cable pairs along their longitudinal axes to ensure that no performance-robbing gaps develop between the conductor pairs. Since no gaps can occur, and the conductor-to-conductor spacing, or centricity, is always uniform, the cable offers excellent and consistently reliable electrical performance – even after the cable has been subjected to the bending, pulling and twisting that is inherent in the installation process and the stresses of the plant floor. Belden calls this unique performance capability Installable Performance.®

DataTuff Connectivity

■ DataTuff RJ45 Cordsets

With solid or stranded 24 AWG conductors, these UTP or FTP Cat 5e cord sets are suitable for use in IP67 or IP20 installations.

■ DataTuff RJ45 Modular Jacks

Cat 5e UTP or FTP Jacks complement UTP or FTP cable constructions and can be used in IP67 installations.

■ DataTuff RJ45 Plug Kits (IP67/RJ45 – UTP or FTP)

For Cat 5e UTP or FTP installations; appropriate for IP67.

■ DataTuff Surface Mount Boxes

1-, 2-, 3-, or 4-Port boxes with stainless steel covers suitable for use in IP67 installations.

■ DataTuff Stainless Steel Faceplates (IP67)

1-Port or 2-Port single gang or 4-Port double gang faceplates; suitable for use in IP67 installations.

Protocol Cables

■ ControlBus® and Other Industrial Coax Cabling

ControlBus low-loss RG-6 coax cables incorporate a quad shield for maximum signal integrity and run length. These cables are available in high-flex, plenum, intrinsically-safe and armored versions for ControlNet,™ MODBUS® and other applications. All Belden industrial coax cables give you the dependability you need to assure long-lasting performance in industrial automation and process control applications.

■ Blue Hose® and Other Industrial Twinaxial Cabling

Belden Blue Hose Twinax cables are robust physical media for the transmission of PLC/DCS signals across the plant floor. To satisfy a number of unique applications, a variety of cable constructions are available, including cables for high temperature, high-flexibility, TC-rated, low smoke zero halogen and direct burial installations. Also available are dual and armored Blue Hose cables. Belden Blue Hose cables are designed to give you unprecedented installation flexibility for Data Highway, SY/Net and many other PLC-I/O networks.

■ DataBus® Cabling

Belden makes a full line of DataBus ISA/SP-50 Fieldbus and Profibus® data cables for industrial applications. These shielded twisted pair cables are impedance matched to the specific factory automation protocol for maximum signal transmission. These products support FOUNDATION fieldbus, Profibus DP and PA, CC-Link and other protocols.

■ DeviceBus® Cabling

DeviceBus cables provide data and power functionality in one cable. The DeviceBus cables that are manufactured per ODVA specifications are available in Class 1 and Class 2 constructions in thick, thin and mid versions for DeviceNet. Other DeviceBus designs support Seriplex®, Interbus® and SDS®.

■ Interconnect Cabling

Belden Interconnect shielded twisted pair cables are available in a wide range of gage, insulation and jacket combinations to carry signal transmissions in protected environments.

■ EIA-485 Cabling

Belden manufactures a full line of industrial EIA-485 PLTC-rated cables to support numerous applications, including HART®, CAN and others.

Belden Cables support numerous protocols including:

- CC-Link
- CANopen
- ControlNet®
- Data Highway
- DeviceNet®
- EIA-485
- EtherNet/IP
- FOUNDATION Fieldbus
- Industrial Ethernet
- Interbus-S
- LONWORKS®
- MODBUS®
- MODBUS TCP/IP
- Profibus®
- SDS®
- Seriplex®

Belden builds quality into its VFD, instrumentation and control cables. Robotic equipment needs the durability of Belden Infinity® cables.

Mission-critical Networking Components for Worldwide Applications

■ VFD Cable (Variable Frequency Drive)

Belden VFD cables are designed specifically for AC motor drive applications. They carry power from the AC drive systems of a wide range of manufacturers to various AC motors. The VFD cable series of 1000V and 2000V UL flexible motor supply cables – with ER (Exposed Run) and tray cable approvals – features XLPE insulation and foil/braid or copper tape shielding to withstand harsh operating environments characterized by high voltage spikes, high noise levels and adverse environmental conditions where standard tray cables would fail. These VFD cables, with a high level of shielding, protect surrounding equipment and instrumentation from radiated noise. They are available in gages ranging from 16 to 4/0 AWG and are extremely reliable, lower in cost and easier to install than metal clad cables or lead wire in conduit. VFD products with an additional signal pair for brake or other applications are available.

Belden armored VFD cables are available in interlocked aluminum or steel type metal clad (MC) constructions. They are rated at 600V and offered in gage sizes from 16 to 4/0 AWG with symmetrical, balanced grounds and dual type copper shields.

For more detailed information on VFD cable construction, refer to the VFD White Paper on www.belden.com/industrial or call Technical Support at 1.800.BELDEN.1.

■ 4-20mA Instrumentation and ■ Control and Power Cable ■ Tray/ER Cable

You don't have to compromise on variety or dependability in your most difficult environments since many of Belden's PLTC/ITC (300V), TC (600V), thermocouple and thermocouple extension and instrumentation cables can accommodate indoor or outdoor environments and are approved for cable tray use in Class 1, Division 2 hazardous areas and non-hazardous areas, cable trays, raceways, conduit, direct burial and messenger wire installations. These cables are available in a number of pair and triad configurations, using various insulation and jacket combinations. Belden offers a wide selection of UL 1277 TC-rated 600V tray cable for a range of control applications. They are installed in cable trays, ducts, and conduit and can be used in direct burial applications, making them ideal for manufacturing facilities. These multi-conductor cables are available from 18 to 4/0 AWG, in shielded and unshielded versions, with various insulation and jacket combinations. Many cables meet ER (Exposed Run), LS (Low Smoke) and ICEA standards. PLTC cables for CI (Circuit Integrity) applications are also available.

Wind Turbine Tray Cable (UL WTTTC) approvals are now available for 600V Instrumentation and Tray versions.





Belden Infinity Flexible Automation Cables for Robotic, Constant Motion Applications

Belden Infinity is a complete line of control, data, video, and power cables specifically designed to handle the rigorous speeds and continuous motion of automated equipment such as robots, C-track equipment, wind turbines, pick-and-place machines, automatic handling systems, multi-axis machine tools, and conveyor systems. These cables offer superior performance, high flexibility, and exceptional durability. Belden Infinity cables are available in several series, including:

- **C-TC+** — designed for C-track and extreme flex applications up to 9 million flex cycles.
C-TC+ cables are UL, CSA and TC-ER rated at 600V; Wind Turbine Tray Cable (WTTTC) rated at 1000V. They have a Cold Bend temperature rating of -40°C and a Cold Flexing temperature rating of -25°C. They are also CE and RoHS compliant
- **FCC** — a cost-effective alternative for C-track and moderate flexing applications rated up to 1 million flex cycles.
FCC cables are UL, CSA and TC-ER rated at 600V; Wind Turbine Tray Cable (WTTTC) rated at 1000V. They have a Cold Bend temperature rating of -40°C and a Cold Flexing temperature rating of -25°C. They are also CE and RoHS compliant
- **Flex Data** — designed for industrial applications that combine precise data transmission with high flexing
- **Flex Vision** — high-flex video cables for motion-controlled video, inspection, and measuring equipment

Belden Classic, Alarm, Security, Sound, Video and Networking Cables

Whatever your application demands, Belden has the solution. Belden products include:

Classic Cables and Lead Wire

Belden provides the most comprehensive offering of multi-conductor and paired cables to meet your needs for interconnect, sound, control, audio and data transmissions. In addition, Belden manufactures its lead and hook-up wire in a variety of materials, sizes and designs to meet rigid industry and government specifications. And, a Photovoltaic (UL PV) Solar cable capability is now available.

New Generation Security and Alarm Cables

Sound and security applications have become more demanding and sophisticated. Belden has answered the challenge with New Generation cables: one of the largest, most economical, up-to-date selections of reliable multi-conductor and coax cables for sound, control, alarm, interconnect, CCTV, security, circuit integrity and more.

DataTwist Commercial Networking Cables

DataTwist cables are designed for commercial/office applications, providing significant amounts of headroom above and beyond Category 6 and 5e standards. Many DataTwist cables also feature Belden's unique, patented Bonded-Pair technology that ensures uniform conductor spacing to eliminate performance-robbing gaps from forming between the pairs.



As security applications have become more demanding, Belden cabling stays ahead of the curve to provide the solutions you need.

Brilliance Audio and Video Cables

The broadcast industry can't afford to compromise on cable performance. Belden Brilliance cables are used for microphones, musical instruments, speakers, audio and video, multimedia, and many other applications by CNN, NBC, Lucasfilm, and hundreds of other news, entertainment, and business giants.

Belden is the premier supplier of products for OSI layers 1, 2 and 3

More Options, More Performance

Belden cables are manufactured using statistical process control (SPC) methodologies. Belden was the first UL registered major manufacturer of specialty wire and cable products to achieve ISO 9001:2000 registration for the majority of its domestic and overseas facilities.

Insulation and Jacket Technology

Belden formulates many of its own insulations and jacket compounds. As a result, they provide superior performance under a variety of hostile environmental conditions. Belden cables are available in UL-listed and CSA-approved compounds.

Armoring Technology

Belden's innovative interlocking and continuous armoring technologies deliver maximum physical protection. Additional benefits include reduced cost of conduit, easier to install and re-route, and additional shielding.

Depending upon the application, our cables utilize any number of construction features. Custom cables can also be ordered using any one of the following construction features:

- Armoring: Aluminum Interlock, Steel Interlock, and Continuous Corrugated Aluminum
- Armor Tapes: Corrugated Copper, Aluminum, and Steel
- Jackets: PVC, CPE, LDPE, TPE, HDPE, Fluorocopolymer, Oil Res II, Low Smoke Zero Halogen (LSZH), Haloarrest®, and Polyurethane

- Shielding: Overall Beldfoil®, Duofoil®, TC Braid, TC Double Braid, Individual Beldfoil Copper Tape Shields, and "French Braid"
- Insulations: Datalene®, XLPE, FEP, Polypropylene, Foam FEP, HDPE, PVC, TPE, and PVC-Nylon
- Conductors: Solid BC, Stranded BC, Solid Bare Copper-covered Steel, and Stranded TC

Optical Fiber Cabling Components

FiberExpress Duplex Patch Cords

Duplex patch cords in single-mode and 62.5 μm (FX300) and 50 μm (FX600) multimode versions, suitable for use in riser applications.

FiberExpress Rack-mount and Wall-mount Patch Panels

The rack-mount patch panels are equipped with a special hinge that allows easy access to the rear of the patch panel without disturbing the optical fiber cable, while a specially designed front panel allows connector protection and easy routing of optical fiber patch cords. A series of wall-mounts provide an economical solution for the protection of optical fiber terminations and splices.

FiberExpress Single-mode and Multimode Universal Optical Adapter Strips

Come pre-loaded with six (single density) or 12 (double density) adapter sleeves. Blank strips are also available.

FiberExpress Brilliance® Field-installable Connectors

A revolutionary, easy-to-use and highly reliable field-installable connector that enables cable termination in less than 5 seconds - without tools!





Wide Range of Industrial-grade Connectivity Products

A wide range of connectivity products are also available to interface with field devices such as sensors, actuators, junction boxes, control panels, push buttons, tower lights and safety light curtains. These products are widely used throughout the industrial automation industry for machine and factory automation and are made of durable materials that can withstand the harsh industrial environmental conditions of shock, vibration, dust and washdown.

Some of the most common machinery applications include: packaging, material handling, assembly, and robotics.

Standard Connectivity Products

Distribution/Junction boxes, Cordsets, Receptacles, Field-attachable Connectors, Taps, Tees, and Splitters, DIN Valve Connectors, Circular Connectors, and Rectangular Connectors for Mini (7/8" – A Body, 1" – B Body, and 1 1/8" – C Body), Micro (M12), Micro (1/2"-20), and Pico (M8) connector sizes.

Fieldbus Systems

Centralized I/O Systems include Modular Fieldbus IP67 Systems for Machine-mount applications and IP20 Distributed I/O Systems for Switch Cabinets.

Decentralized I/O Devices include Input/Output Modules/Blocks, Cordsets, Receptacles (Panel-Mount, PCB, and Feed-through), Field-attachable Connectors, Taps, Terminating Resistors, and a variety of cable options such as Thin, Mid, or Thick for DeviceNet applications. Supported protocols include: DeviceNet, Profibus-DP, Interbus, CANopen, EtherNet/IP, PROFINET and AS-Interface.

We Have It All

Whatever your need, Belden provides the solution. For more product information, or to find a Belden sales associate or a distributor near you, visit our web site at www.belden.com/industrial.

Belden products deliver continuity and efficiency to major infrastructure facilities such as a large wastewater processing complex.



GLOBAL LOCATIONS

For worldwide Industrial Sales
and Technical Support, visit:
www.belden.com/industrial



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