

## Industrial Connectivity Solutions

Flyer



# Belden: Reliable connections that make innovation possible

In today's fast-paced, technology-driven world, seamless connectivity is the foundation for any successful business. Belden makes connections possible so businesses can have a secure, smart and successful future. Belden connects people, information and ideas to unlock new possibilities for its customers.

Our comprehensive connectivity solutions harmonize our customers' entire data infrastructure. Whether industrial automation, secure data transmission or real-time communication - the right infrastructure makes all the difference.

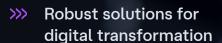
- > POWER
- > DATA COMMUNICATION
- > SENSOR / ACTUATOR
- > VALVE





### Maximizing efficiency and reliability

Ensuring reliable power transmission is critical to continuous production, especially in industrial environments. Belden's solutions quarantee that electrical power is transmitted consistently and efficiently, minimizing downtime and maximizing productivity.



Ethernet technology is the backbone of modern industrial communication and ensures that signals in automation systems, machines and networks are transmitted reliably. Belden offers solutions that ensure stable and efficient data transmission, even under demanding conditions.





### > APPLICATIONS

- Drive systems: The market-leading M12 power connection solution from Lumberg Automation ensures a reliable power supply.
- M12 Power in robotics: Flexible connectors for dynamic applications that can withstand up to 10 million bending cycles and torsion.
- Space and performance in intralogistics: Powerful and compact connection solutions are essential in intralogistics.

### **> APPLICATIONS**

- Railroad applications: Secure data transmission and port connections despite permanent vibrations with up to 10 Gbit/s Ethernet, approved according to EN45545 and EN50155.
- Intralogistics: Robust solutions for Automated Guided Vehicles (AGVs) and mobile systems that are fail-safe and vibration-resistant.
- Outdoor and food industry: Corrosion-resistant solutions for secure data transmission, ideal for crane systems in port transportation and packaging technology in the food industry.

### >>> Why Belden?

Belden offers high-quality power supply solutions for both flexible (> 10 million cycles/torsion) and fixed installations.

They ensure reliable performance over long distances. The M12 Power portfolio quarantees up to 24A and 630V, in compliance with IEC standards, with a compact design and high reliability, even in applications up to 125°C.

Belden's extensive portfolio includes connection and connection cables in TPE (tray rated), PUR, PVC or LSZH qualities as well as all accessories such as h-, H- and T-splitters, field-attachable connectors and device connectors. Straight, angled and shielded versions are available and meet the highest performance and reliability standards.

### >>> Why Belden?

Belden is the world's first supplier of overmolded push-pull X-coded cables that ensure high network stability, fast and secure data transmission. Robust connectors minimize signal loss and offer protection against mechanical stress, environmental influences and aggressive chemicals. With Electromagnetic Interference Shielding (EMI shielding) and various connectivity options such as M8, M12, RJ45 and Push-Pull, Belden offers flexible solutions for Ethernet. PROFINET and Industrial IoT. The tool-free push-pull technology enables quick installation and saves space.



### >>> Efficient process control

Reliable transmission of data between sensors and control systems is critical for process monitoring, quality control and predictive maintenance.

Belden offers solutions that meet these requirements while supporting safety management and energy optimization.

### Connections for hydraulic and pneumatic systems

Belden offers reliable connection solutions for valves, solenoid valves and sensors that provide protection against dust, water and vibrations. These solutions are available in various designs to meet specific requirements in hydraulic and pneumatic systems.



### > APPLICATIONS

- Industrial automation: Halogen-free, self-extinguishing materials prevent damage from welding sparks and ensure stable sensor-actuator processes.
- Robotics and mechanical engineering: Highly flexible type R PROFINET cables ensure reliable sensor-actuator connections.
- Food and beverage production: The WashDown series meet the highest hygiene requirements and are ECOLABcertified.

### > APPLICATIONS

- Pneumatic systems: Reliable DIN valve connections ensure precise control of valves and actuators.
- Hydraulic systems: Efficient control of valves and hydraulic fluids thanks to robust DIN connectors.
- Industrial automation and process control:
   Precise control of processes and material flow in production systems with stable electrical signals, for example in conveyor belts, robots and other automation solutions.

### >>> Why Belden?

**Belden** offers a secure and reliable supply chain as well as competitive solutions through its own cable production facilities. The products ensure secure signal transmission, easy installation and compatibility with global IEC standards (M8, M12). They are robust against vibrations, moisture and extreme temperatures and are ideal for space-critical installations.

The main portfolio includes ready-made cable assemblies for a variety of applications, both with standard screw locking and push-pull. Belden also offers ready-to-assemble connectors with screw, IDC, crimp and push-in connections as well as other accessories.

### >>> Why Belden?

Reliable and stable connections thanks to overvoltage protection and optional PCBA components minimize signal interference and failures. Various designs and configurations allow for easy integration and flexible customization, while optional LEDs provide clear functional indication.

Belden complies with DIN EN 17-5301-803 and industrial standards, enables fast installation and minimizes downtime



# Connect to what's possible.

Flyer



# Northern Jonnectors

The Industrial Connector Specialist

Belden Inc. delivers complete connection solutions that unlock untold possibilities for our customers, their customers and the world. We advance ideas and technologies that enable a safer, smarter and more prosperous future. Throughout our 120+ year history we have evolved as a company, but our purpose remains making connections. By connecting people, information and ideas, we make it possible. We are headquartered in St. Louis and have manufacturing capabilities in North America, Europe, Asia and Africa.

If you would like more information, please visit our website:

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