

Solutions in conveyor technology



With Belden's wide product portfolio in automation technology and logistics, you'll be a clear step ahead: with maximum reliability, flexibility and investment security.

Production meets logistics:
Automation today stretches
right up to the top shelf of a
high-bay warehouse.

**The solutions from Belden enable
highest performance, maximum
reliability and cost effectiveness.**

**No matter what you produce or
store tomorrow.**



Automation technology is a question of flexibility

Today, increasing productivity in a sustainable way is a key priority. With this in mind, readily available and extremely cost-effective, integrated solutions from a single source are called for. Solutions that offer a high degree of flexibility and customization as well as variable expansion possibilities.

With our wide range of high-quality products from the Belden, Hirschmann™ and Lumberg Automation™ brands, combined with qualified service and support, we are the perfect, long-term partner for your applications and plant design in automation technology. Talk to us about your specific requirements and take advantage of our extensive solutions-oriented expertise and comprehensive know-how.

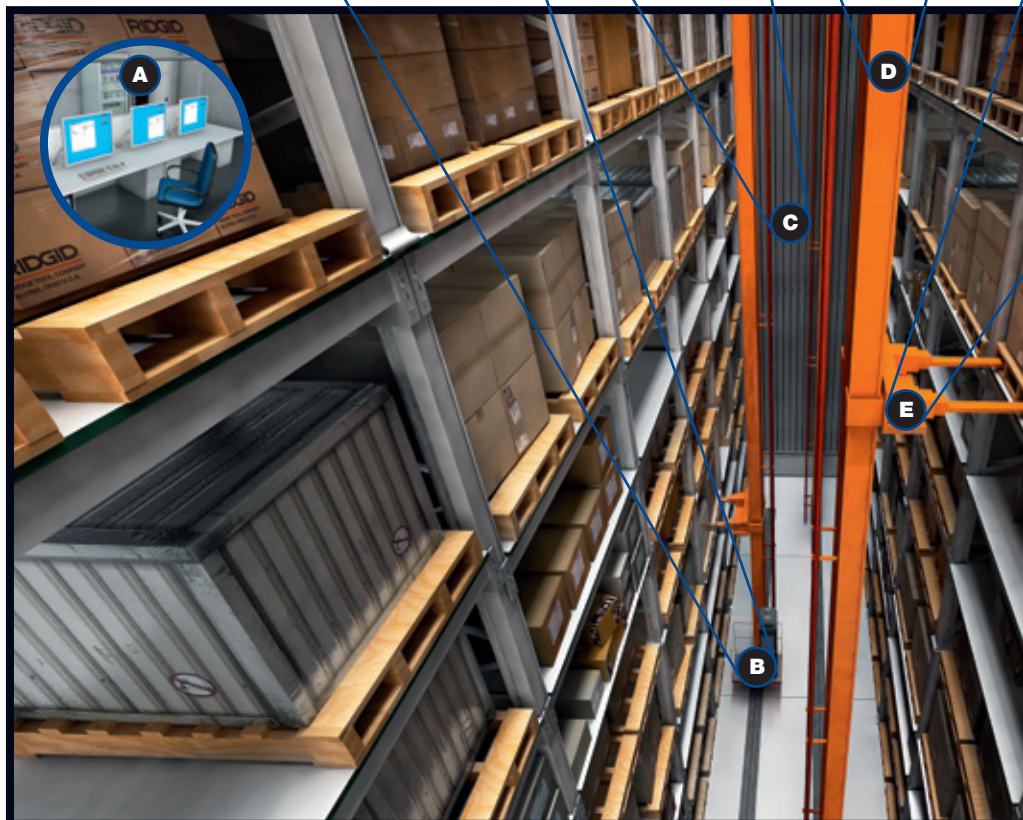


Maximum reliability in the warehouse

When it comes to automation technology in high-bay warehouses, the perfect interplay of all network components is what really counts. Belden, Hirschmann™ and Lumberg Automation™ offer extremely reliable, multifaceted connection solutions for actuators and sensors on the automation line. They are your qualified partner in all areas of automation technology:

- supply of actuators and sensors on the automation line
- solutions for I/O communication and drive control
- reduction of cabling requirements via direct module cabling, the in-field cabinet is no longer required
- space-saving design
- protection categories IP67 and IP69K
- high flexibility thanks to variety of module types
- cutting-edge with LioN-Link Motion

Belden meets all the requirements of state-of-the-art, automatic high-bay stores with highly reliable actuator and sensor technology.





A Control room

MACH100

- modular fanless Industrial Ethernet rack mount switch
- hot-swappable modules
- optional redundant power supply



B Operator's panel

BAT Client

- rugged metal DIN rail mount housing
- single LAN – IEEE802.11b/g and 802.11a/h
- up to 108Mbps bandwidth
- redundant 24VDC power inputs (incl. IEEE802.3af PoE support)



Fieldbus systems and distributors

- decentral fieldbus modules for AS-Interface, DeviceNet, CANopen and Profibus
- actuator/sensor distribution box
- IP67/IP69K protection class, vibration and shock resistant



Power connector

- molded, field attachable
- vibration safe
- maximum voltage of 400V for power supplies with a good price/performance ratio
- maximum current of 16A in accordance with the derating curve
- integrated strain relief in connectors with cable connection



Connectivity solutions

- actuator/sensor connecting and inter-connecting cables
- field attachable connectors
- M8, M12, M23, 7/8", A, B and C design
- IP65 – IP69k protection class



F Cabinet

EAGLE20

- high-speed VPN, firewall and routing solution
- transparent and routing mode
- various media connection options
- 9.6V up to 60VDC redundant inputs



OpenRail family

- Industrial Ethernet switches
- redundant power inputs
- available in customized versions
- available with conformal coating
- extended temperature range: –40°C up to +70°C



FiberExpress Systems

- FiberExpress Manager easy patch cords routing and management in a minimum space
- FiberExpress Bar: a compact, modular and resilient linking panel
- Optimax connectors for fast, secure and reliable field installable fiber termination



Industrial Ethernet Connectivity

- superior performance and excellent reliability in the industrial environment
- withstands harsh industrial environments and conditions
- quick installation
- increased flexibility with stranded conductors



C Mobile and flexible data communication

D

BAT family

- wireless access points and clients
- bridge functionality
- redundant WLAN links for reliable data transfer
- IP67 protection class



BAT Client

- rugged metal DIN rail mount housing
- single LAN – IEEE802.11b/g and 802.11a/h
- up to 108Mbps bandwidth
- redundant 24VDC power inputs (incl. IEEE802.3af PoE support)



E Lifting sledge

Actuator/sensor connectors

- suitable for use in drag chains
- torsion-suitable
- vibration and shock resistance
- M8, M12, 7/8", M23

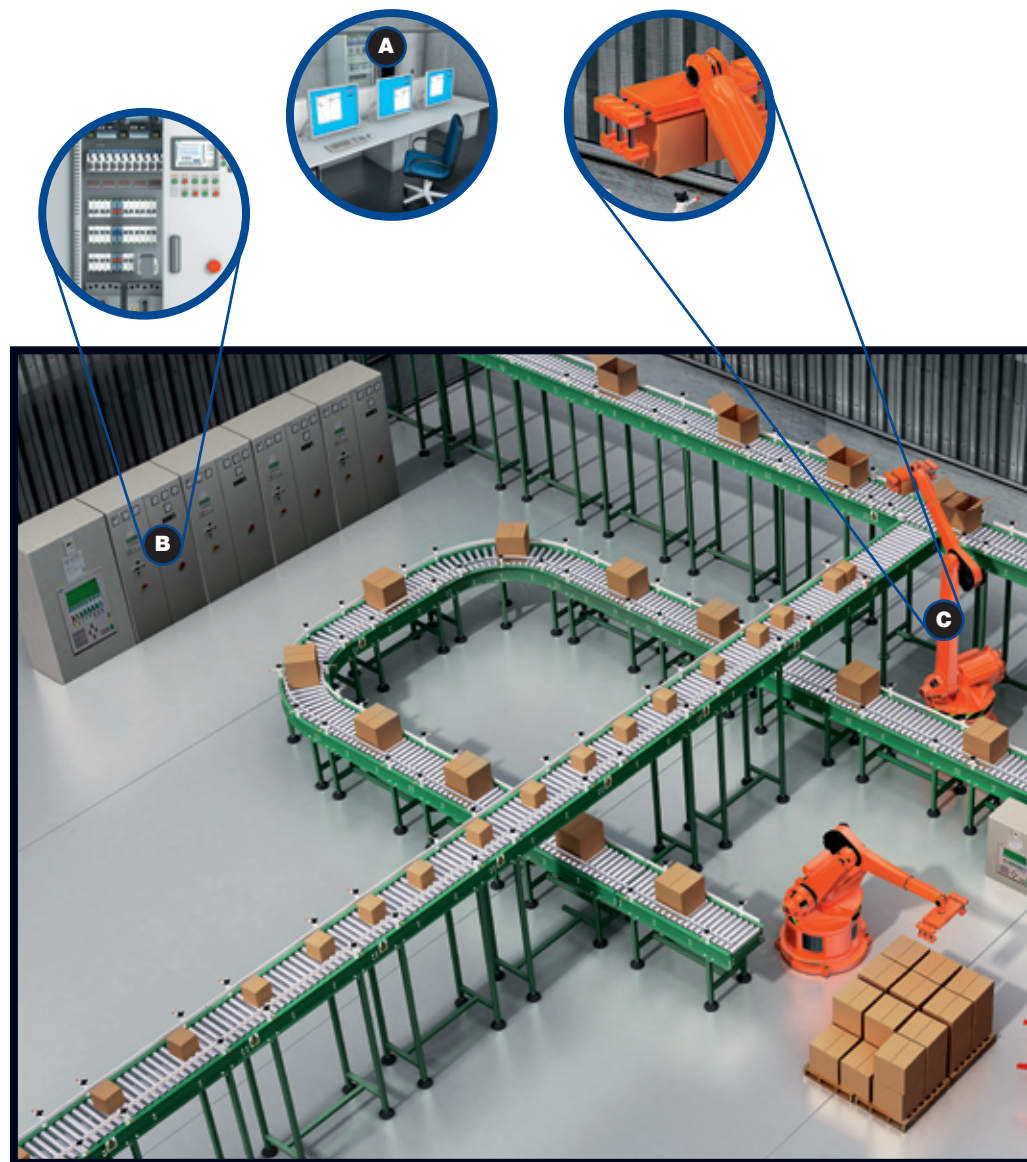


Optimal solutions for intralogistics

Also for conveying, sorting, warehousing or commissioning in manufacturing logistics, products from Belden, Hirschmann™ and Lumberg Automation™ show their strengths on the conveyor belt. Distributors, switches and fiber interfaces all deliver outstanding reliability and availability, while ensuring flexibility and scalability.

In transportation and warehousing over several floors, our products also provide maximum investment security: with a versatile, modular concept that can be extended at any time, along with maximum plant availability – thanks to high-quality products and reliable service.

Flexibility and scalability are just two of the key factors which Belden satisfies in the field of logistics.





A Control room

MACH100

- modular fanless Industrial Ethernet rack mount switch
- hot-swappable modules
- optional redundant power supply



MACH4000

- Gigabit backbone routing switch
- up to 48 Gigabit Ethernet ports and three 10Gigabit Ethernet ports
- highly redundant



Network Management Software

- operator edition for network supervision
- engineering edition for device configuration
- OPC and ActiveX for SCADA integration



B Cabinet

OpenRail family

- Industrial Ethernet switches
- redundant power inputs
- available in customized versions
- available with conformal coating
- extended temperature range: -40°C up to +70°C



Fieldbus repeaters

- for the most common fieldbus protocols
- protocol specific fieldbus repeaters available
- predictive maintenance



MICE family

- modular switch system
- extensive range of hot-swappable media modules
- maximum flexibility by comprehensive selection of connectors
- Gigabit router option



EAGLE20

- high-speed VPN, firewall and routing solution
- transparent and routing mode
- various media connection options
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C Robot

BAT Client

- rugged metal DIN rail mount housing
- single LAN – IEEE802.11b/g and 802.11a/h
- up to 108 Mbps bandwidth
- redundant 24VDC power inputs (incl. IEEE802.3af PoE support)



OCTOPUS family

- first manageable ruggedized IP67 PoE switch
- extended management by SNMP
- redundancy via HIPER-Ring/MRP and Rapid Spanning Tree
- access control via IEEE 802.1X



Power connector

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- maximum voltage of 400V for power supplies with a good price/performance ratio
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Connectivity solutions

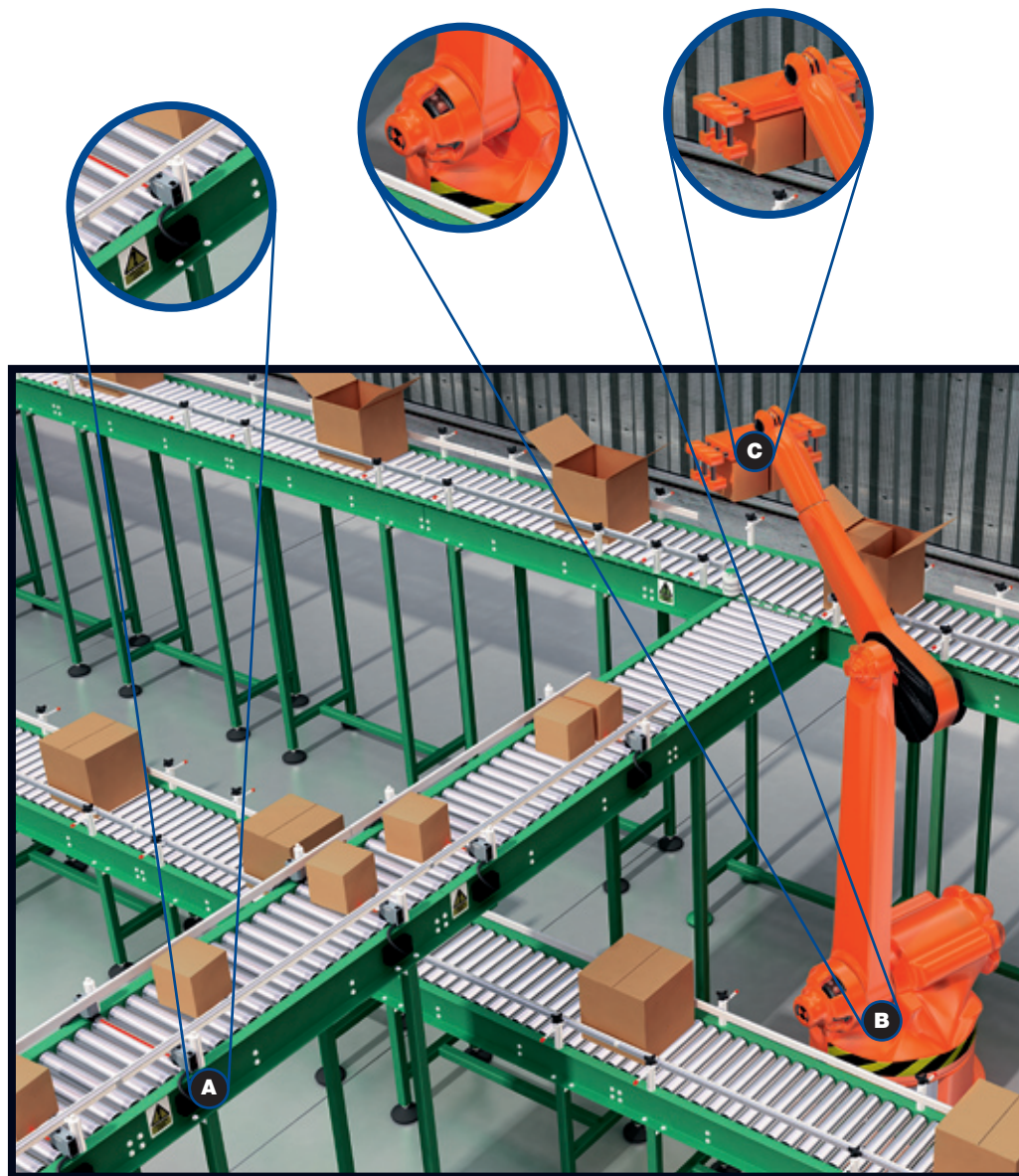
- M8 actuator/sensor distribution boxes with LED, 4–12 ports
- M8 actuator/sensor connectors, single- and double-ended
- IP67 protection class



Conveyor belt

- compact switches for the control cabinet (Plug and Play)
- decentralized switches for merging several fields
- FiberINTERFACES for long-distance signal transmission
- unique drive technology implementation
- possibility of controlling external kinematics, e.g. via valve control
- detailed diagnostic characteristics
- Lion-Link Motion ensures energy savings

Special demands all along the line: Belden meets them with distributed network components and also enables reliable data transmission over longer distances.





A Sensor

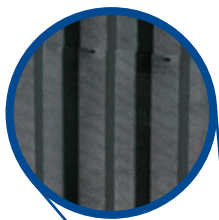
LioN-Link

- two lines per bushead (for Profibus, ProfiNet, DeviceNet and CANopen)
- field bus independent I/O modules
- up to 100m extension per line
- up to 15 devices per line



LioN-Link Motion

- implementation of drive technology
- energy savings
- reduced amount of cabling
- high level of diagnostics



D



E

B Robot

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e2c 67

- modular field bus station, IP67
- bus-neutral, compact and up to 128 signals in a very small space
- safety through the backplane concept
- bushead for Profibus, Interbus, DeviceNet and Ethernet TCP/IP



microFX

- IP67 Ethernet connector
- industrial M12 technology
- optical and electrical contacts



Connecting and interconnecting cables

- suitable for use in drag chains
- torsion-suitable
- vibration and shock resistance
- M8, M12, 7/8", M23



D Mobile and flexible data communication

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