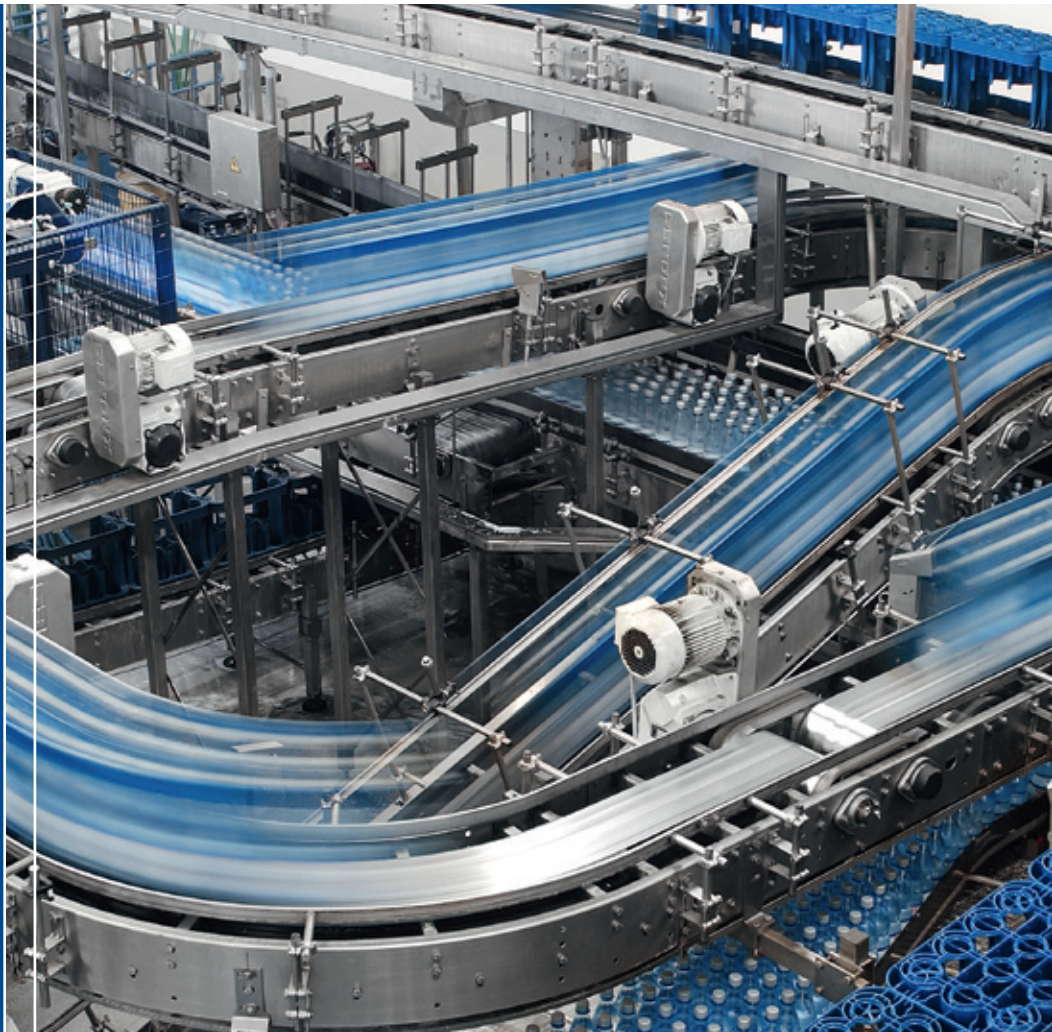


Solutions for the food and beverage industry



Bottling and packaging liquid and food place great demands on automation technology and network communication. With its broad portfolio of products and extensive solutions expertise, Belden is a full-range supplier for the food and beverage industry.

Belden ensures that everything keeps flowing in the food and beverage industry, with highest performance and maximum availability.

With a wide product range, high hygiene standards and easy-to-clean products, Belden meets all the branch requirements.



Where expertise and know-how converge

In the bottling and packaging industry, maximum equipment performance and availability are essential. And, very specific hygienic requirements need to be met as well. These hygienic requirements must be observed very closely; especially when rearranging plant equipment. All components are required to display a high degree of flexibility and ease of cleaning in such cases.

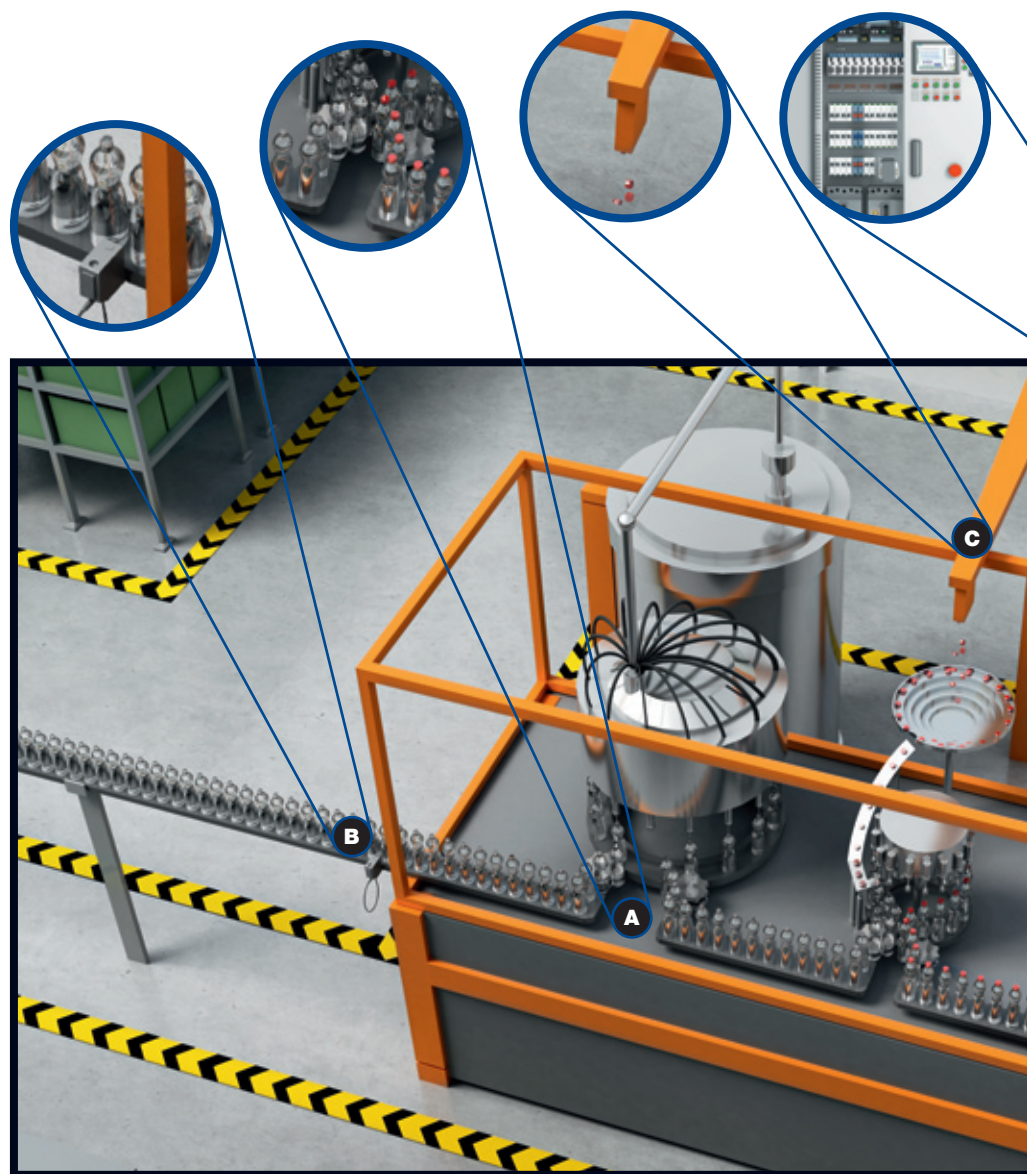
Belden meets these requirements perfectly with products and solutions from the Hirschmann™ and Lumberg Automation™ brands. It offers cost-effective, integrated concepts for all plant modules – from a single source – and with the highest possible investment security and scalability. Talk to us about your individual needs.



Bottle cleaning and circular filling

Fully automatic filling of liquids into bottles or other sealable containers is a real challenge. With customized solutions in plant integration, we deliver perfect solutions to these challenges and offer products suited to the most diverse applications in the beverage, food, chemical and pharmaceutical industries.

For bottle cleaning or for filling: Belden offers efficient solutions for all applications.





A Signal transmission

B Actuator/sensor distribution boxes

- easy cleaning
- high resistance
- long-term stability
- stainless steel V4A
- IP69K protection class



AS-Interface fieldbus modules

- 4 digital inputs and outputs
- M12 bus connection
- AS-Interface cable connector used as tap distributor of connections or as connector
- stainless steel V4A
- IP69K protection class



Flow rate and filling level meter: Actuator/sensor connectors

- M12-male and female connectors with stainless steel hexagon threaded joint
- high resistance
- IP69K protection class



Attachable connectors

- M12 male and female connectors with stainless steel hexagon threaded joint
- 4-, 5- and 8-poles
- IP67 protection class



Receptacle connectors for food processing equipment

- M12 male and female connectors for front mounting
- male connector for sensors
- housing of stainless steel
- 4-, 5- and 8-poles
- IP69K protection class



C Workstation

BAT family

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



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



microFX

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



D 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



E Cabinet

Fieldbus repeaters

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



EAGLE20

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



MICE family

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



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

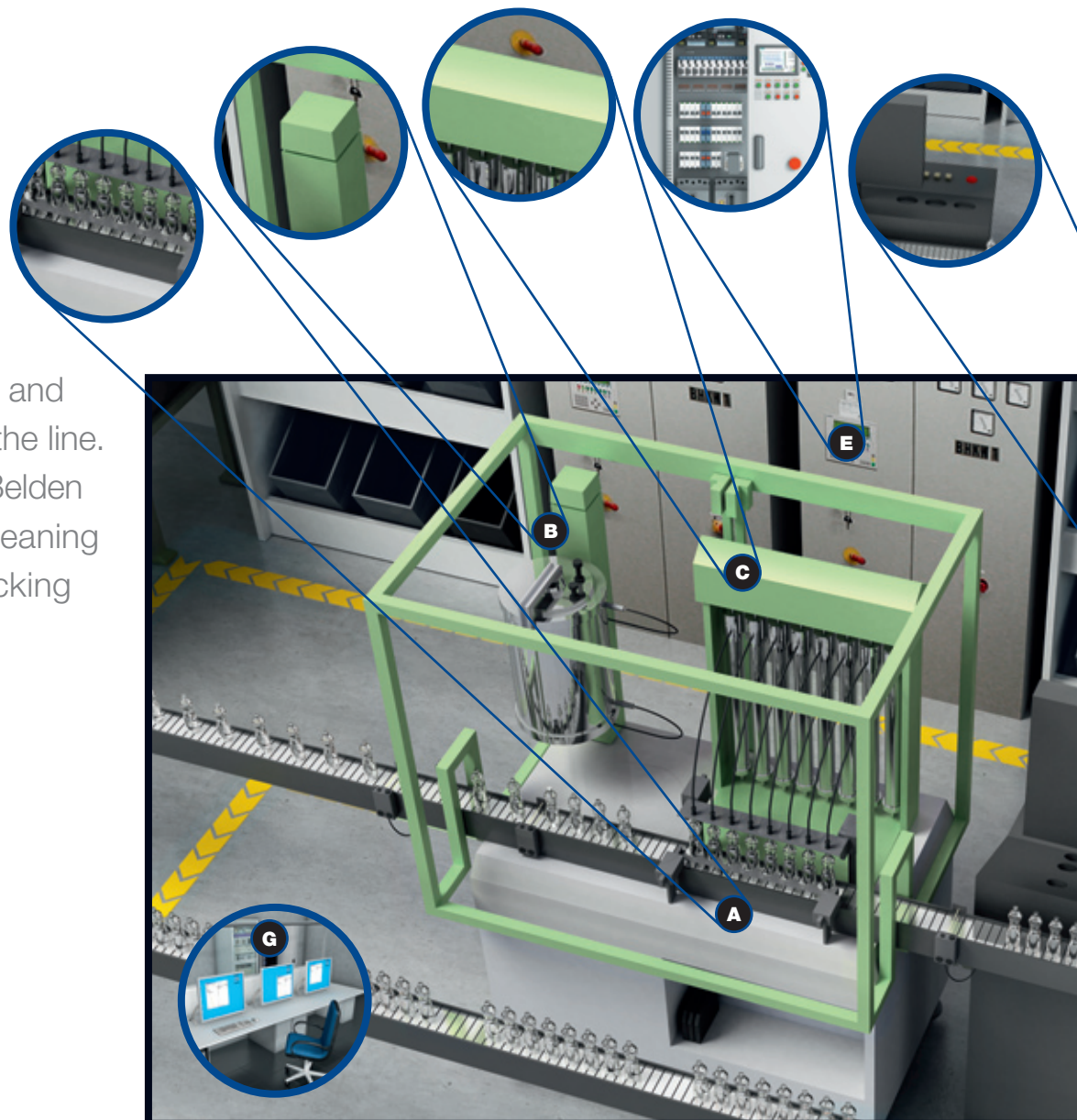
- superior performance and excellent reliability in the industrial environment
- withstands harsh industrial environments and conditions
- quick installation
- increased flexibility with stranded conductors



Linear bottle production line

- integration of complete filling and bottle production lines
- exact dosing of filling volumes, via flow-through measuring devices
- bottling under the best hygienic conditions
- automatic dosing of filling volumes via an operation terminal
- in gravity bottling systems, signal transmission to the control system takes place via sensor
- securing and monitoring plants
- minimizing downtime
- controlling seal elements

Maximum efficiency and availability all along the line. The solutions from Belden range from bottle cleaning and filling to the packing process.





A Signal transmission

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AS-Interface fieldbus modules

- 4 digital inputs and outputs
- M12 bus connection
- AS-Interface cable connector used as tap distributor of connections or as connector
- stainless steel V4A
- IP69K protection class



Connecting and interconnecting cables

- M12-male and female connectors with stainless steel hexagon threaded joint
- IP69K protection class



Attachable connectors

- M12 male and female connectors with stainless steel hexagon threaded joint
- 4-, 5- and 8-poles
- IP67 protection class



Power connector

- 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



C

Workstation

OCTOPUS family

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



D Operator's panel

OpenRail family

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



E Cabinet

Fieldbus repeaters

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EAGLE20

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



F Valve terminal

Actuator/sensor connectors

- good chemical and oil resistance
- vibration and shock resistance
- M8, M12, 7/8", M23



Valve connectors

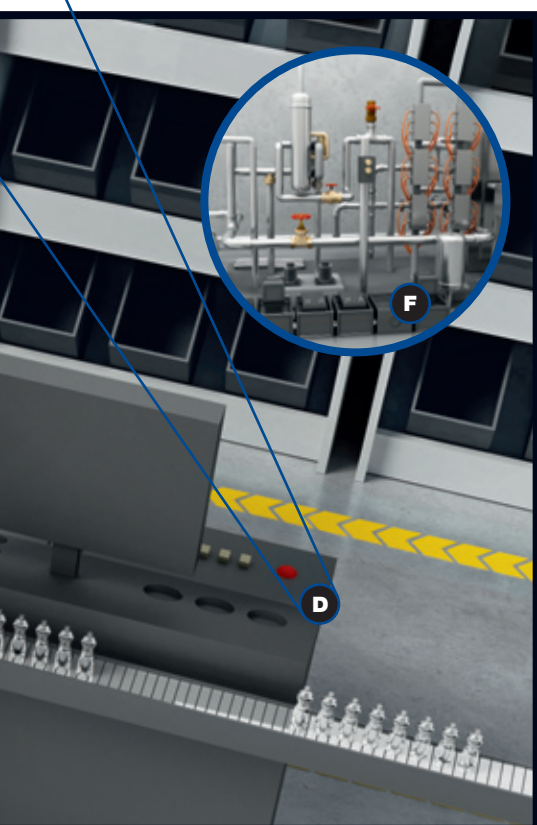
- reduced height resulting in lower space requirements
- standard version with molded, captive seal
- up to +80°C and IP65/IP67 protection class



G Control room

MACH100

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

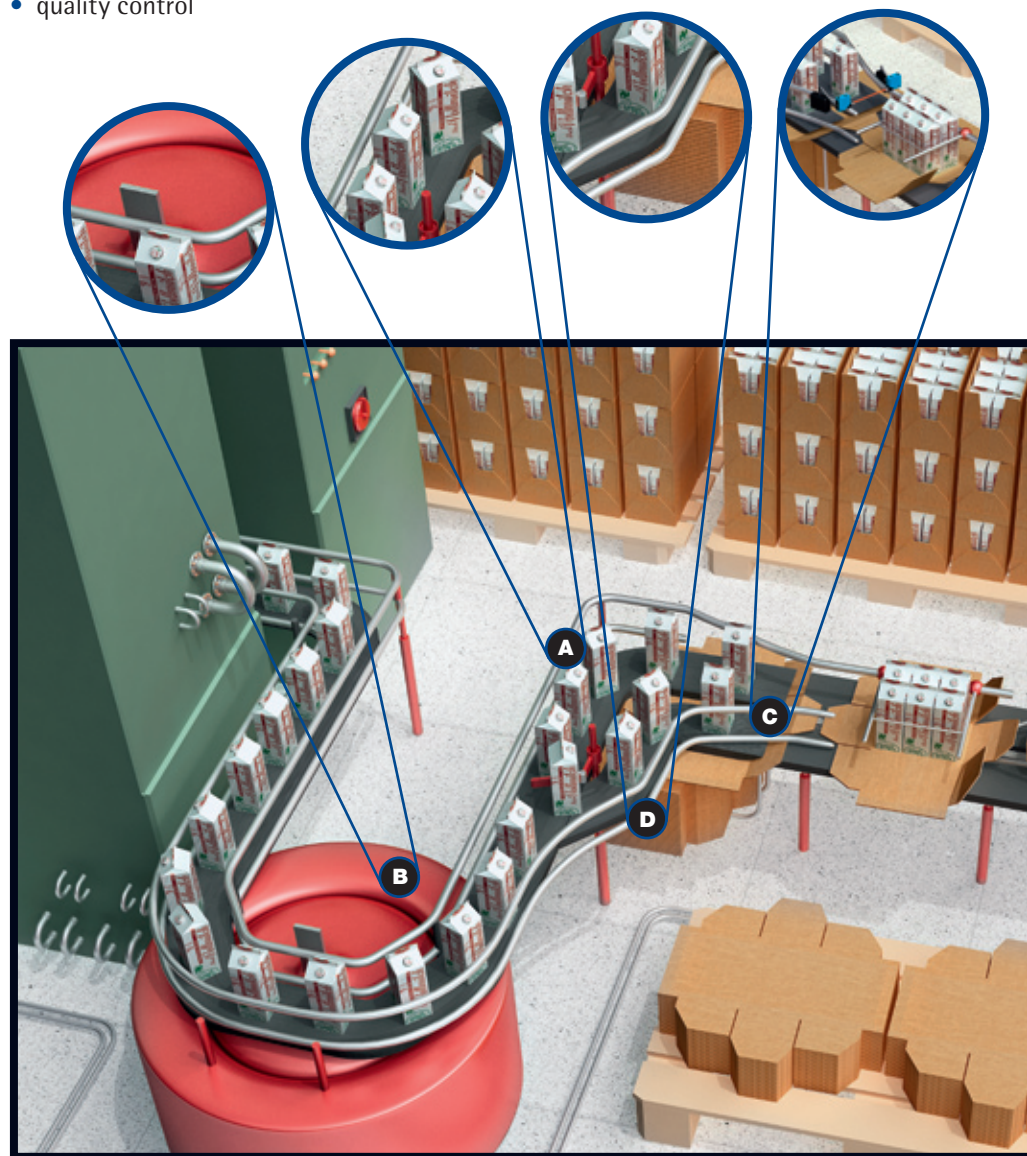


Packing and palletizing

In packing and palletizing processes, cost-effectiveness and flexibility are decisive criteria – from unloading and unpacking through to packing and loading. Containers and packages of various types and sizes are packed and palletized. The packing and palletizing machines are integrated to key plant control systems and thus intrinsic to the plant and operation concept.

- handling and packaging containers of any shape and size
- fully automatic palletizing, sorting and commissioning
- loading and unloading disposable and returnable containers
- securing and monitoring of palletizing, sorting and commissioning processes
- quality control

Packing is a question of flexibility and integration. Belden offers the right solution for every type of container, including system monitoring and control.





A Signal transmission

B Actuator/sensor distribution boxes

- 4, 6, 8, 10 and 10 port distribution box
- space saving design
- shock and vibration proof
- IP67 protection class



Attachable connectors

- M8, M12, 7/8", M23 male and female connectors
- straight and angled versions
- 4-, 5-, 8-, 12- and 19-poles
- good chemical and oil resistance
- IP65/67 protection class



Connecting and interconnecting cables

- good chemical and oil resistance
- vibration and shock resistance
- M8, M12, 7/8", M23



LioN-M/LioN-S

- universal I/O functionality
- unlimited combinations of inputs and outputs
- saving of I/O memory
- exact diagnostics



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



E Conveyor belt

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



microFX

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



F Cabinet

MICE family

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



OpenRail family

- redundant power supply
- available in customized versions
- available with conformal coating



Fieldbus repeaters

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



BAT family

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



FiberExpress Systems

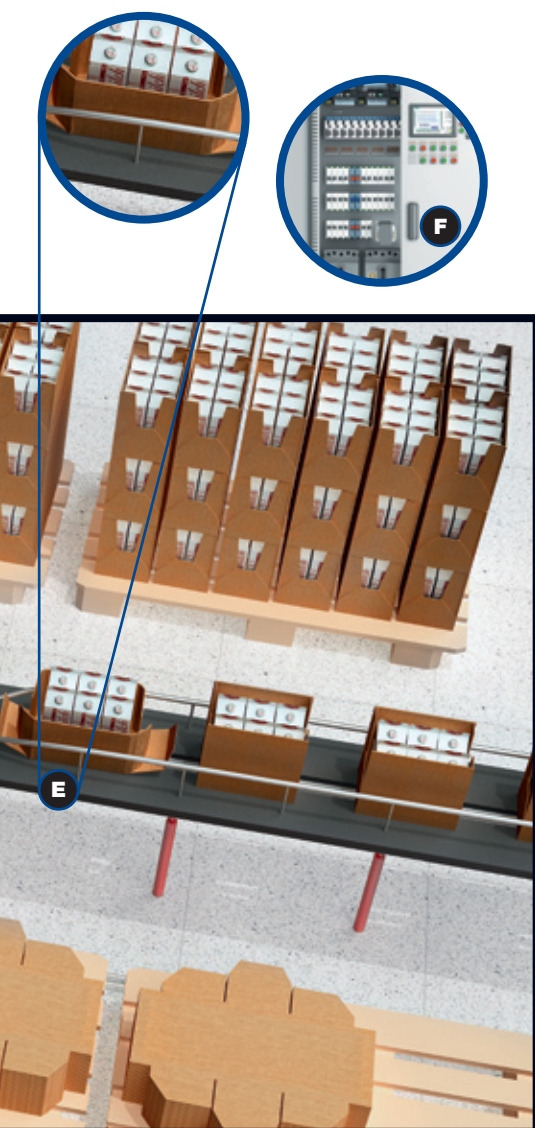
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Industrial Ethernet

Connectivity

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- withstands harsh industrial environments and conditions
- quick installation
- increased flexibility with stranded conductors



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and Technical Support, visit:
www.belden.com/industrial

