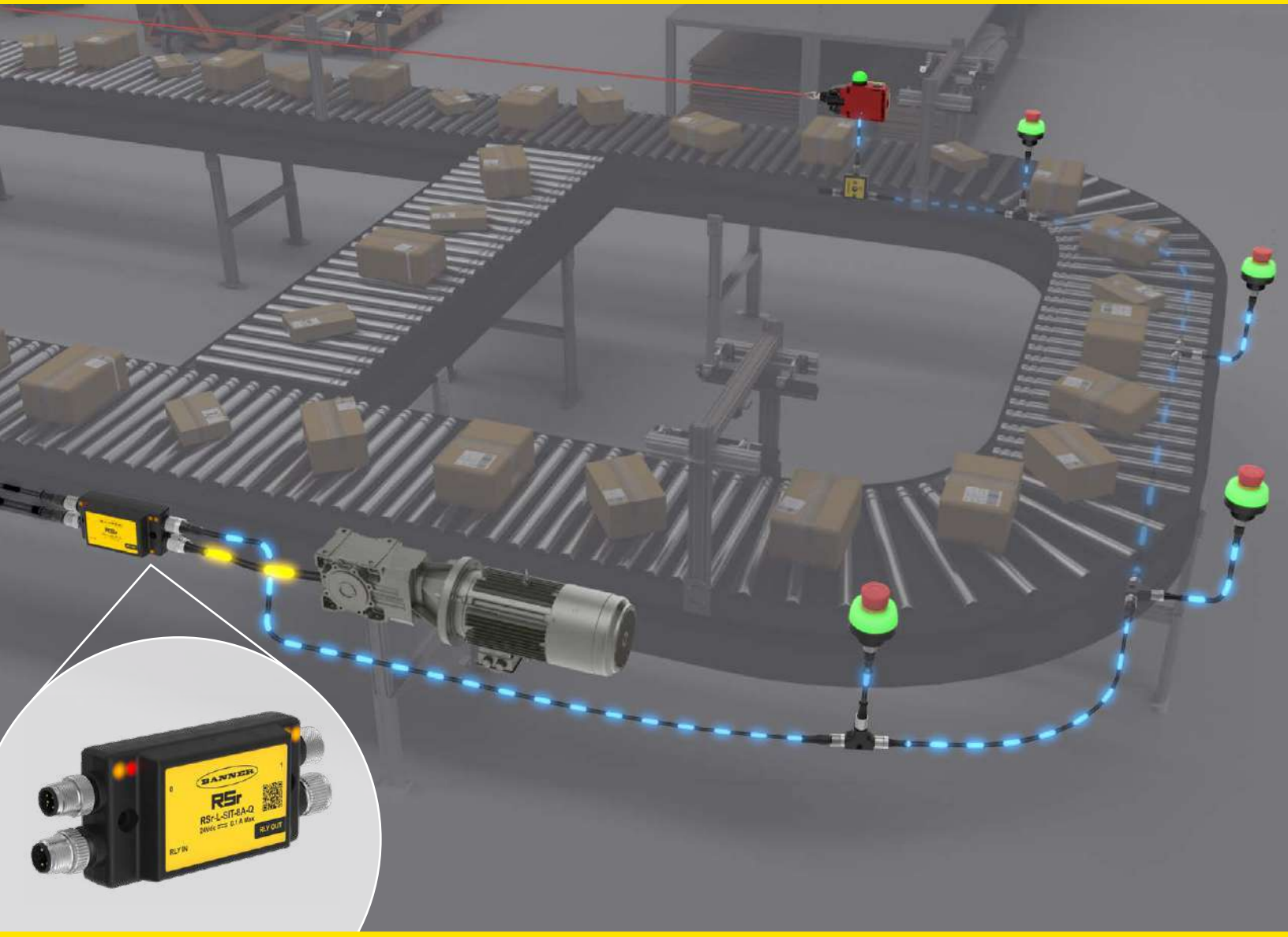
RSr Remote Safety Relay

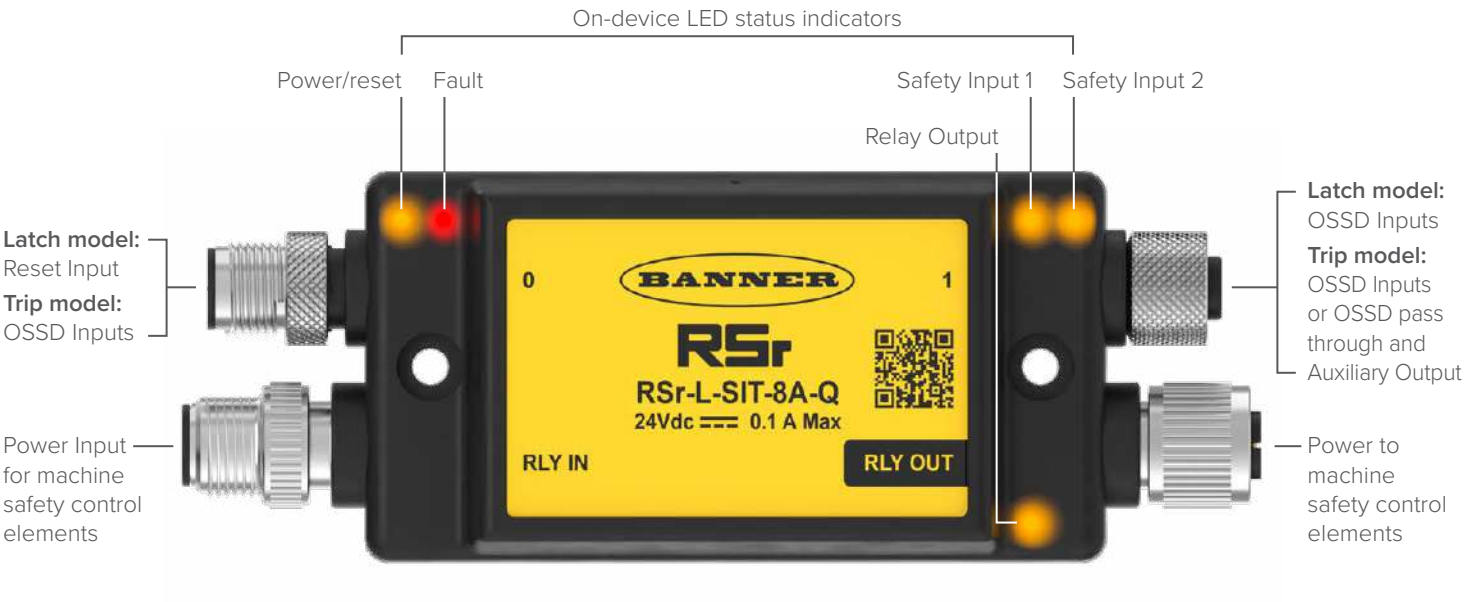


Plug-and-Play Machine-Mountable Safety Relay

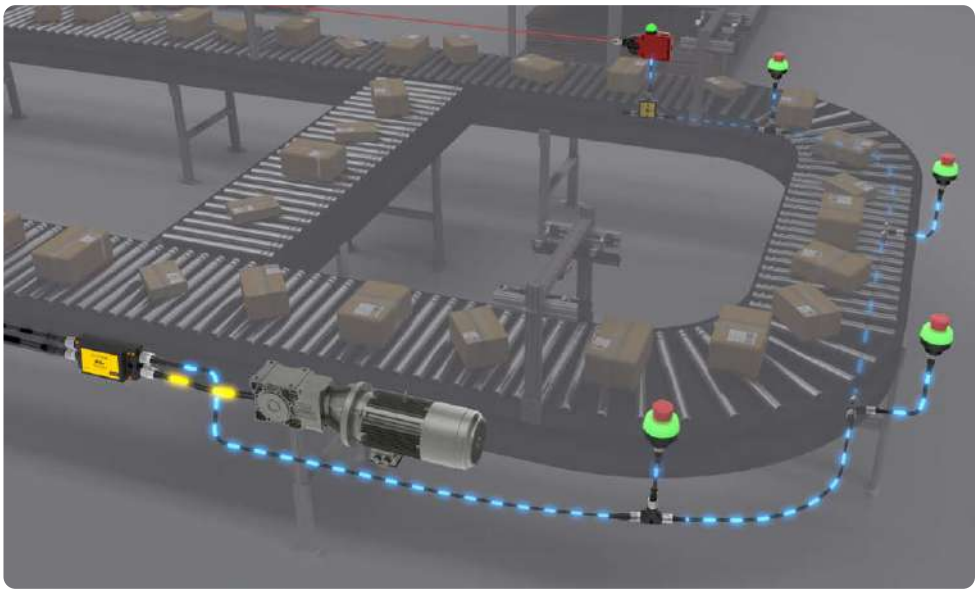
- **Mount directly on machines** with a compact, IP65/IP67-rated housing and M12 connectors
- **Plug-and-play installation**. No programming or DIP switches. Choose between manual reset and automatic reset models
- **Support the highest safety levels without a separate EDM circuit** with up to Category 4 / PL e and SIL 3 performance and compatibility with dual-channel OSSD output devices

BANNER®

RSr Features and Functionality



Zone-Based Safety Switching for Reduced Downtime



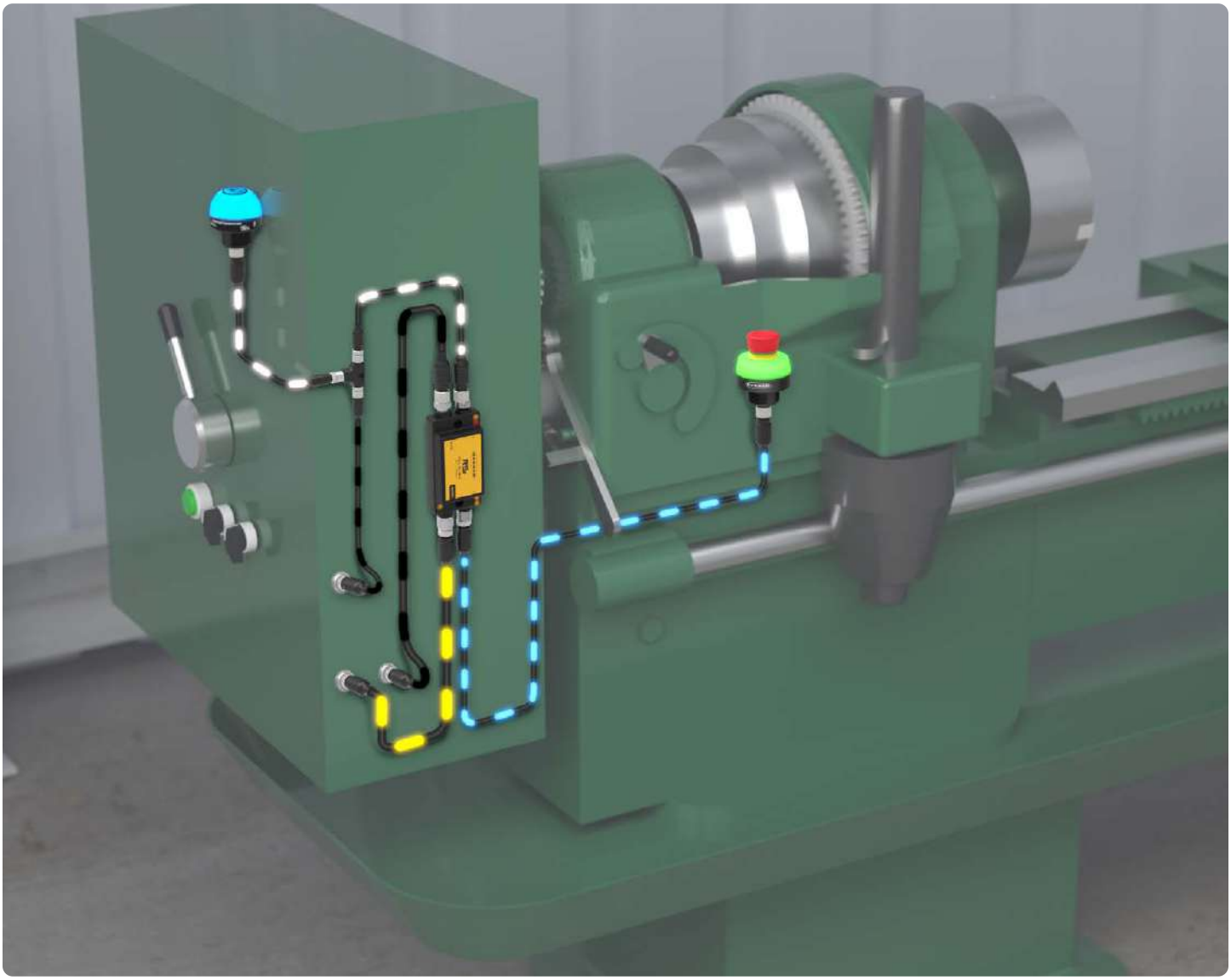
Challenge

A long package conveyor has multiple E-stops and rope pulls connected to a single safety circuit. Activating any one of them shuts down the entire line. Creating independent safety zones with conventional relays requires panel space for a relay dedicated to each zone, long cable runs to and from the control cabinet, and the time required to install and integrate them.

Solution

An RSr Remote Safety Relay mounted at each conveyor motor enables plug-and-play deployment and quick creation of independent zone control. Within each zone, ISD E-stops are daisy-chained together, while an ISD Connect brings the rope pull into that zone's safety chain. The chain's two OSSD outputs connect to the RSr safety inputs, and its two 8 A, pulse-free 24 V DC relay outputs switch that zone's motor shutdown circuit.

When an E-stop is pressed or the rope pull is actuated, the RSr turns off both relay outputs and stops that conveyor zone. The other zones continue operating, containing downtime to the affected section.



On-Machine Safety Switching with Manual Reset

Challenge

An older metal lathe needed its own E-stop safety function with manual reset, but there was no available space in the control cabinet to add a safety relay.

Solution

An RSr Remote Safety Relay latch model mounted directly on the lathe made it easy to add a modern OSSD E-stop without requiring control cabinet space or major changes to the existing controller. OSSD E-stop outputs connect to the RSr, which provides outputs for the machine shutdown circuit. A K50 Touch Button connected to the RSr reset input provides local manual reset, while indicators on the RSr show power/reset, fault, safety-input, and relay-output status directly at the lathe.

When the E-stop is pressed, the RSr turns off both relay outputs, stopping the lathe. After the E-stop is rearmed, the latch model keeps the relay outputs off until the operator touches the K50 to reset the RSr before restarting the lathe.

RSr Remote Safety Relay

Relay	Inputs	Reset	Output Current	Models
L-Code	2 OSSD Safety Inputs	Latched Relay (reset input on aux wire)	2 Relay outputs (8 amp each)	**RSr-L-SIL-8A-Q**
		Trip (aux output on aux wire)		**RSr-L-SIT-8A-Q**

Specifications



Supply Voltage	24 V DC
Output Response Time	20 ms
Construction	Body: TPU Coupling: Nickel-plated brass
Operating Conditions	–25 to +60 °C
Environmental Rating	IP65, IP67
Certifications	CE, cULus LISTED

Accessories



RSr-MBK-01
RSr mounting bracket



ACC-CAP M12-10
Protective end cap



CSB-M1250M1250-T
5-pin M12 splitter for connecting additional devices



CSB-M1250M1250A
5-pin M12 splitter for connecting additional devices



CSB-M1250M1250
5-pin M12 splitter for connecting additional devices



4-Pin A-Code
M12 Single-Ended
Straight connector models listed; for right-angle models, add **A** to the end of **M12F4** (example, BC-M12F4A-22-2)

BC-M12F4-22-2
2 m (6.5 ft)
BC-M12F4-22-5
5 m (16.4 ft)
BC-M12F4-22-10
10 m (32.8 ft)



4-Pin A-Code
M12 Double-Ended
Straight connector models listed; for right-angle models, add **A** to the end of **M12F4** and/or **M12M4** (example, BC-M12F4A-M12M4A-22-2)

BC-M12F4-M12M4-22-2
2 m (6.5 ft)
BC-M12F4-M12M4-22-5
5 m (16.4 ft)
BC-M12F4-M12M4-22-10
10 m (32.8 ft)



5-Pin A-Code
M12 Single-Ended
Straight connector models listed; for right-angle models, add **A** to the end of **M12F5** (example, BC-M12F5A-22-2)

BC-M12F5-22-2
2 m (6.5 ft)
BC-M12F5-22-5
5 m (16.4 ft)
BC-M12F5-22-10
10 m (32.8 ft)



5-Pin A-Code
M12 Double-Ended
Straight connector models listed; for right-angle models, add **A** to the end of **M12F5** and/or **M12M5** (example, BC-M12F5A-M12M5A-22-2)

BC-M12F5-M12M5-22-2
2 m (6.5 ft)
BC-M12F5-M12M5-22-5
5 m (16.4 ft)
BC-M12F5-M12M5-22-10
10 m (32.8 ft)



5-Pin L-Code
M12 Single-Ended
Straight connector models

BCP-M12LF5-14-2
2 m (6.5 ft)
BCP-M12LF5-14-5
5 m (16.4 ft)
BCP-M12LF5-14-10
10 m (32.8 ft)



5-Pin L-Code
M12 Double-Ended
Straight connector models

BCP-M12LF5-M12LM5-14-2
2 m (6.5 ft)
BCP-M12LF5-M12LM5-14-10
10 m (32.8 ft)
BCP-M12LF5-M12LM5-14-15
15 m (49.2 ft)

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