GuardLink Enabled Connection Taps

Enabling Smart Safety Devices in The Connected Enterprise

Features and Benefits

- Acts as the adaptor for safety input devices to connect to GuardLink™
- Provides device location and status to GuardLink GSR Relay (DG) technology
- Detects between Output Safety Switching Device (OSSD) or Electromechanical Safety Switch (EMSS)
- Two bright indicators for device and link communication status
- Compact 40 mm housing fits on standard aluminum profiles
- TÜV Approved Ple, SIL 3, Cat 4 Rated
- IP65/IP67 environmental rating

What is GuardLink?

GuardLink is a safety-based communications protocol that links safety to The Connected Enterprise. Allen-Bradley® Guardmaster® smart safety devices featuring GuardLink technology deliver information, advanced functionality and flexibility, while enhancing safety and increasing efficiency machine- and plant-wide.

GuardLink enabled devices offer advanced features and diagnostics that can only be accessed through a GuardLink enabled connection tap.

- Real time, contextual diagnostics and sensor health data significantly improve troubleshooting
- Automatic Device Reset (ADR)
- Seamless integration into Rockwell Automation EtherNet/IP architecture
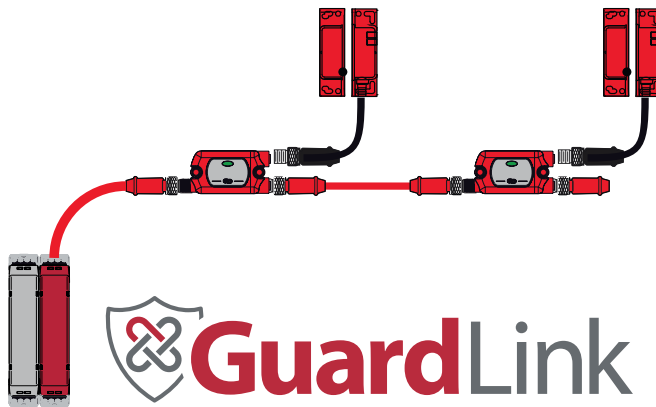

GuardLink Enabled Connection Tap

A truly connected enterprise has real-time control and information available across platforms and devices within the organization. When it comes to linking safety to The Connected Enterprise, our smart safety devices featuring GuardLink technology can deliver information, advanced functionality and flexibility, while enhancing safety and increasing efficiency machine- and plant-wide.

GuardLink is a safety-based communications protocol utilizing standard cabling in linking topology with plug-and-play connections, significantly reducing wiring while providing device location and delivering diagnostics, remote reset and lock commands over a single cable run. The Allen-Bradley® Guardmaster GuardLink enabled tap from Rockwell Automation connects OSSD (Output Signal Switching Device) or EMSS (Electro-mechanical Safety Switch) inputs—including guardlocking switches, non-contact switches, light curtains, limit switches, e-stops and key interlocks--to a GuardLink system. As many as 32 safety devices can be connected to a GuardLink system through taps and interfaced to a Guardmaster DG safety relay by way of standard M12 4-conductor cabling. This allows visibility of system status down to the individual guard doors and e-stops in contrast to standard series connection of safety devices, which requires significantly more wiring and introduces many more potential fault points that can lead to unnecessary, unplanned downtime. GuardLink not only provides a simpler, more effective and productive safety solution, but can also deliver faster time to market and help lower the total cost of ownership of your machines.

Allen-Bradley Guardmaster safety relays and safety components featuring GuardLink technology allow you to access status information for your entire safety system. If an e-stop or an interlock switch is operated, that individual safety signal will be sent to the Guardmaster safety relays. The relays are optically linked to each other, requiring no wiring for communication between them. That information is then communicated seamlessly across your Connected Enterprise by way of the Guardmaster EtherNet/IP™ network Interface.

The GuardLink Safety System

- Safety, diagnostics, remote reset and lock command over one cable
- Up to 32 devices per link (such as guardlocking switches, light curtains and e-stops)
- 1000 m link distance (max 30 m between devices)
- Chain topology with standard M12 4 (trunk) or 5 (drop) conductor patchcords
- Plug and play, no configuration required
- TÜV certified PLe
- Integrated with the Connected Enterprise via the 440R-ENETR EtherNet/IP network interface (Series B)

The interlock or E-Stop is connected to a GuardLink enabled connection tap that features local safety diagnostics in a trunk and drop topology. The taps are connected together in a series using standard 4-wire cables with M12 connectors. The linked system is then interfaced to the Guardmaster DG Dual GuardLink safety relay and to the Connected Enterprise via the 440R-ENETR EtherNet/IP interface.

Product Selection

Description	Catalog Number
GuardLink enabled tap M12 5 Pin EM (Electromechanical) contacts	440S-MF5D
GuardLink enabled tap M12 8 Pin EM (Electromechanical) contacts	440S-MF8D
GuardLink enabled tap M12 5 Pin SS (Solid State) contacts	440S-SF5D
GuardLink enabled tap M12 8 Pin SS (Solid State) contacts	440S-SF8D

Accessories

Description	Catalog Number
GuardLink Tap Mounting Bracket - QTY 1	440S-GLTAPBRK1
GuardLink Tap Mounting Bracket - QTY 5	440S-GLTAPBRK5

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