GuardLink Enabled Connection Taps

A·B QUALITY **Allen-Bradley**
by **ROCKWELL AUTOMATION**

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)
- Connects Output Safety Switching Device (OSSD) or Electromechanical Safety Switch (EMSS) safety devices
- 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/IP69k 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.
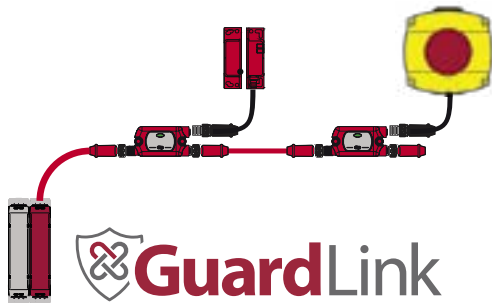
GuardLink is a safety-based communications protocol which allows visibility of system status down to the individual guard doors and e-stops, in contrast to standard series connection of safety devices, which requires significantly more wiring and introduces many more potential fault points that can lead to unnecessary, unplanned downtime. The Allen-Bradley® Guardmaster GuardLink enabled tap from Rockwell Automation connects solid state or electromechanical safety switches – 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 using taps and standard cables, and monitored by a Guardmaster DG safety relay. This significantly reduces wiring and simplifies installation while providing device location and delivering diagnostics, remote reset and lock commands over the link. 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. That information is then communicated seamlessly across The Connected Enterprise via the Guardmaster EtherNet/IP™ network Interface.

RA Rockwell Automation

The GuardLink Safety System

- Safety, diagnostics, remote reset and lock command over one cable
- Up to 32 devices per link (such as interlocks, guardlocking switches, light curtains and e-stops)
- 3200 m link distance (max 100 m between devices)*
- Linear topology with standard M12 4-conductor (trunk) or 5-conductor (drop) 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)

* Links that contain one or more guard locking switches are limited to 1000 m link distance (max 30 m between GuardLink enabled taps or devices)

The safety device is connected to a GuardLink enabled connection tap or a passive tap[3] in a trunk and drop topology. The DG Guardmaster safety relay monitors up to two GuardLink circuits. Status and diagnostic information are communicated to the control system via the 440R-ENETR EtherNet/IP interface, linking the GuardLink system to The Connected Enterprise.

Product Selection

Description	Catalog Number
GuardLink enabled tap M12 5-Pin Electromechanical (EM) contacts[1]	440S-MF5D
GuardLink enabled tap M12 8-Pin EM contacts[1]	440S-MF8D
GuardLink enabled tap M12 8-Pin EM contacts[2]	440S-MLF8D
GuardLink enabled tap M12 5-Pin Solid State (SS) contacts[1]	440S-SF5D
GuardLink enabled tap M12 8-Pin SS contacts[1]	440S-SF8D
GuardLink enabled tap M12 8-Pin SS contacts[2]	440S-SLF8D

[1] These taps are compatible with Power to Release (PTR) guard locks
[2] These taps are compatible with Power to Lock (PTL) guard locks
[3] GuardLink enabled safety devices are connected to the link using passive tap (440S-PF5D) or passive power tap (440S-PF5D4)

Accessories

Description	Catalog Number
GuardLink Tap Mounting Bracket – Qty. 1	440S-GLTAPBRK1
GuardLink Tap Mounting Bracket – Qty. 5	440S-GLTAPBRK5

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