

Enabling Smart Safety Devices in The Connected Enterprise

Features and Benefits

- Supports implementations of two safety circuits
 - GuardLink™ technology
 - Electromechanical Safety Switch (EMSS) or Output Safety Switching Device (OSSD) devices
- Local controls to select and configure the safety related function
 - Function Selection
 - Single input with optional time delay
 - Dual input with optional time delay
 - Dual input with time delay on 1 input
 - Device Reset
- Configurable multipurpose terminals
- Safety input, safety output, safety and standard signals
- Relay outputs to switch higher loads
- Connectivity to network interface via optical link
- Support of Single Wire Safety (SWS) to cascade multiple safety relays
- Add-on profile for Studio 5000® Logix Designer software provides access to relay and GuardLink device data

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 tap
- Real time diagnostics and sensor health
- Automatic Device Reset (ADR)
- Improved troubleshooting with contextual based diagnostics
- Seamless integration into Rockwell Automation EtherNet/IP architecture



GSR DG

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.

The Allen-Bradley® Guardmaster® DG Dual GuardLink™ Safety Relay from Rockwell Automation is a new multi-functional safety relay, which provides up to 20 configurable safety functions with an optional time delay of the relay outputs. The DG safety relay offers easy configuration with two pushbuttons and a rotary switch for setting the time delay. To help minimize downtime and increase productivity, the relay features a built-in diagnostic function which can be used with the 440R-ENETR Ethernet/IP™ Gateway or integrated Add on Profile (AOP) for Studio 5000 Logix Designer® software.

Connecting all the safety devices through GuardLink-enabled smart taps and standard 4 conductor cabling to a Guardmaster DG safety relay allows visibility of system status down to the individual guard doors and e-stops. 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.

LISTEN.
THINK.
SOLVE.®

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
Guardmaster Dual GuardLink (DG) safety Relay	440R-DG2R2T

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