

## What is Guardlink?

Guardlink is a new safety linking technology which provides safety and real-time diagnostic information for safety related control systems, where traditionally, safety input devices have been connected in series.

When safety system data can be accessed, and transformed into meaningful information, machine productivity can be increased, and downtime minimised, however historically, when safety input devices are connected in series, getting diagnostic information increases the complexity of the wiring solution.

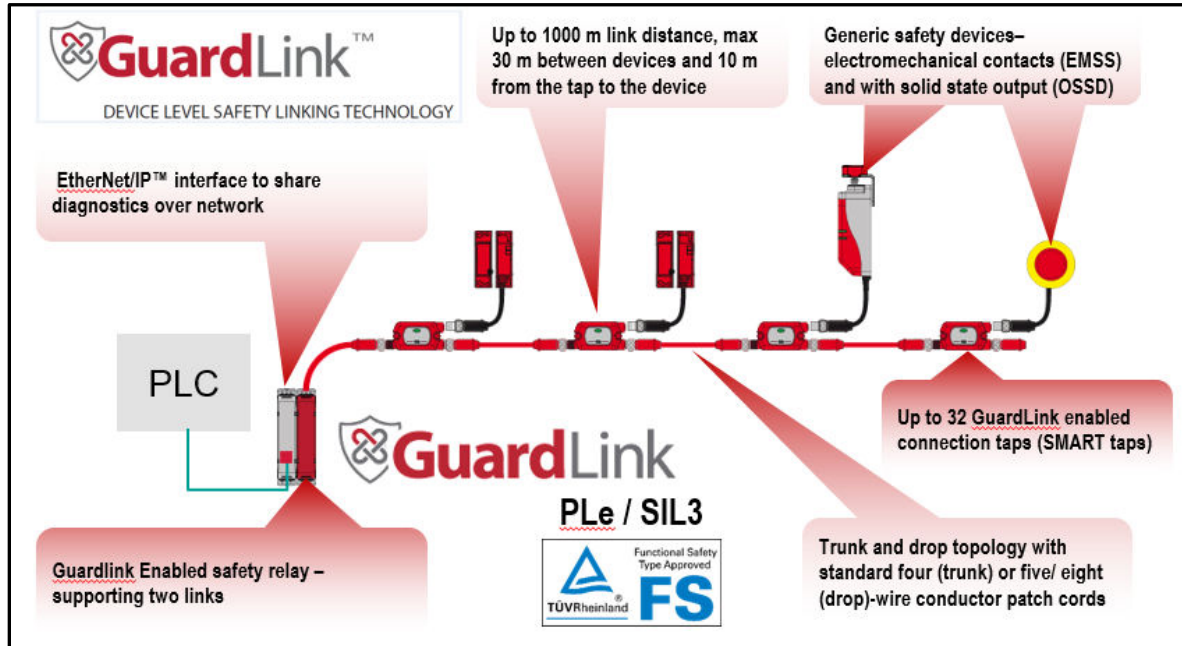
- 1) An auxiliary contact from each input device is needed
- 2) This needs to be wired into the control system – typically to an input of a programmable logic controller (PLC), and
- 3) This input needs to be tagged, and named in a data table so it can be viewed on an HMI or mobile device.

This increases the cost for the installation, additional input cards on the programmable logic controller maybe required, along with additional engineering time

With Guardlink, diagnostic data can be accessed, whilst simplifying the overall solution.

- Only one cable is needed for both safety and diagnostics data – Ethernet IP.
- Reduced installation time, and configuration time to use the data.
- Reduction in validation time of the solution.
- Certified for applications up to and including PLe Cat 4 (ISO 13849-1) and SIL cl3 (IEC 62061)

## Guardlink - System Structure



Guardlink has three main parts :-

- 1) A Guardlink enabled safety relay, which has two Guardlink channels
- 2) An Ethernet gateway, which communicates the diagnostic information to the PLC, and allows reset and lock/unlock commands to be sent back to the Guardlink system.
- 3) The Safety input devices are connected to Guardlink by SMART taps. These are available for devices with volt-free contacts, and solid state outputs, including guard-locking switches. The SMART taps provide input device location on the machine, and status information to the GuardLink enabled safety relay. They also have two bright indicators for local indication on the machine.

No configuration is required, with wiring achieved through standard cabling with M12 connectors. Up to 32 safety input devices can be connected in series over 1000m.