

# **Single Function Safety Relay**

Added safety for your E-Stop



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Single function safety relay

# What is your E-Stop connected to?

#### Why is it important to know what your E-Stop is connected to?

In Australia E-Stop systems have a legal requirement to function even when electrical or electronic malfunctions occur. This requirement comes from the National Work Health and Safety Regulations (clause 211) and is repeated in the requirements of the Safe Work Australia Managing Risk of Plant Code of Practice (Section 4.3)

#### How do you comply with the Regulations?

The most common way to design your system to avoid failure due to electrical/electronic malfunction is to wire your E-Stop to a certified safety relay. Figure 1 shows a typical system design for an E-Stop function. This system shows the E-Stops wired with 2 channels into a single function safety relay, which interrupts power to the machine motor via dual contactors wired in series.

## System Capabilities

- The system is dual channel, thus if a malfunction occurs on one channel, the other channel will continue the stop function
- The safety relay will monitor the E-Stop and contactors for fault and won't allow machine operation until failed components are replaced/fixed
- The safety relay will also perform the reset function for the E-Stop, this is a requirement of Australian Standard AS 4024.1

## Which safety relay?

For a system such as Figure 1, use the single function safety relay 440RS12R2.







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E-Stop twist to release