CE UL TÜV
C   US

Conforms to EN60204-1, EN954-1, EN292, EN50081, and EN50082

UL and C-UL listed, TUV approved

SR05A

Single-Channel Safety Monitoring Relay

- Power requirements—the SR05A will accept 24 VAC or 24 VDC

- Inputs—a single N/C input channel, *not monitored,* is provided

- Outputs—the SR05A has three N/O outputs to route power to the coils of external device power contactors *plus* one N/C auxiliary output for signaling purposes

- External Device Monitoring (EDM) is provided with a N/C loop between X1 and X2 on the SR05A

- Reset mode—an automatic reset mode is provided with the SR05A

✎ **If you are considering this product for a new application please review the relay selection guide at www.sti.com/relays**
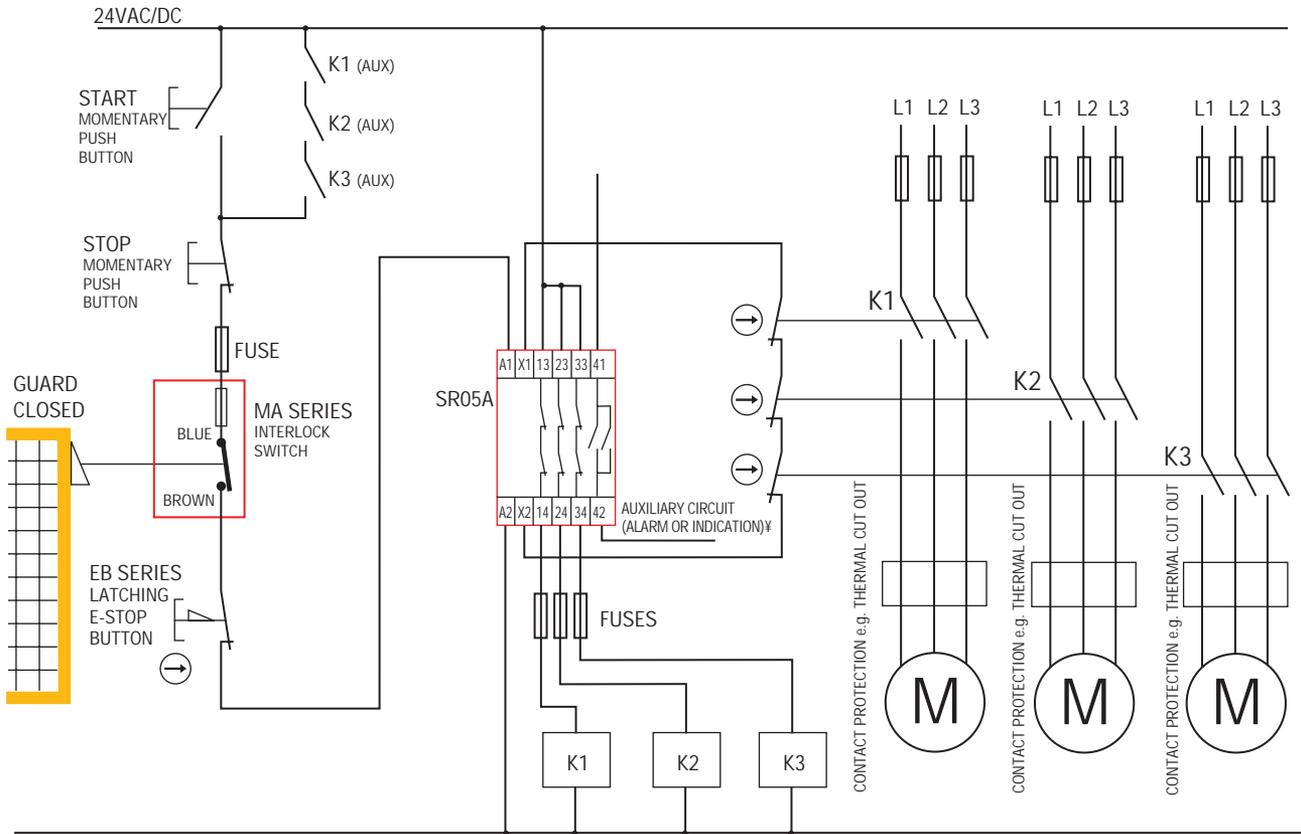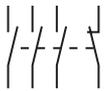
STI

■ *Application*

For an explanation of circuit operation,
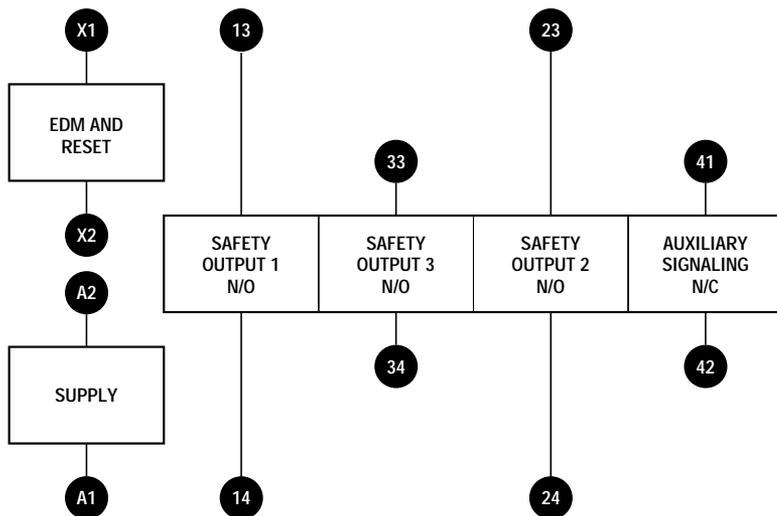see www.sti.com/pdf/2407.pdf

H

safety monitoring relays

Output Contact Arrangements

Terminal Connections

A **Go to the Engineering Guide**
For in-depth information on safety standards and use.

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Europe Tel. +49 (0) 5258-938-776

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China Tel. +86-21-5836-7708
Singapore Tel. +65-648-44-001

For the Latest Information
On the Internet: **www.sti.com**
E-mail: **sales@sti.com**

H2

■ *Circuit Example*

Supply

+   –

Switching
Circuit

SR05A

Switches up to 3 contactors
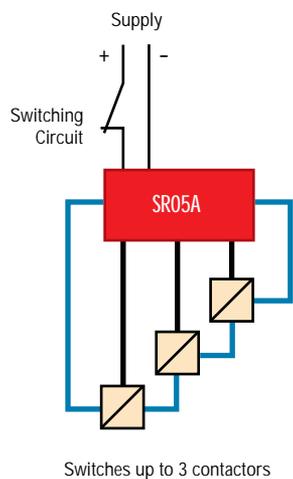
Key

— EDM circuit

— Contactor coil switching circuit

— Supply inclusive of
switching circuit

◨ Contactor

24V AC/DC   **Feedback and Reset**

A1   A2   X1   X2   13   23   33   41

~

=

RL2   RL1

RL1   RL2

RL1   RL2

RL1

RL2

RL1   RL2

RL1   RL2

14   24   34   42

■ *Dimensions — mm/in.*

99
3.89

22.5
0.88

114.5
4.5
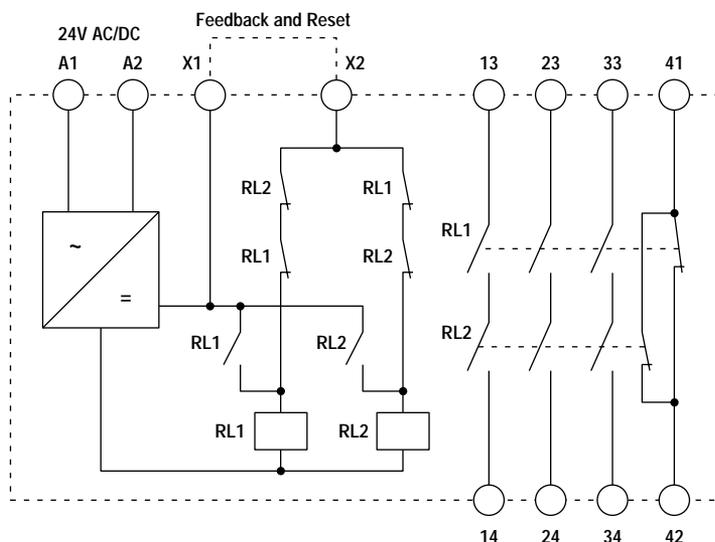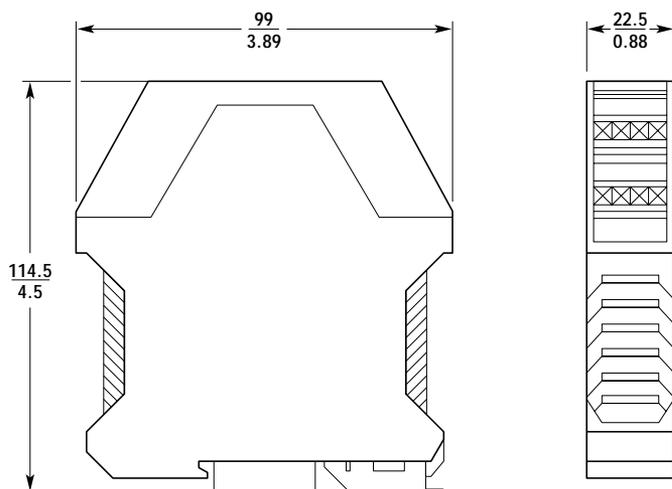
■ Specifications

Electrical	All Models
Power Supply:	±15%, 24 VAC/DC
Power Consumption:	<2 VA
Internal Fuse:	N/A
Safety Inputs:	1 N/C (not monitored)
Relay Outputs:	3 N/O + 1 N/C auxiliary
Max Switched AC:	Inductive AC-15, 4 A/250 V
Max Switched DC:	Inductive DC-13, 2 A/30 V
Min Switched Current/Voltage:	10 mA/10 V
Impulse Withstand Voltage:	2500 V
Max Drop-Out Time:	24 VDC: 190 ms; 24 VAC: 230 ms
Max Output Fuse:	5 A quick-acting fuse
Reset Mode:	Automatic (time to reset is 35-50 ms)
External Device Monitoring (EDM):	N/C loop X1–X2
Mechanical	
Mounting:	35 mm (1.38 in.) DIN rail
Case Material:	Polyamide PA6.6
Max Wire Size:	2 x 1 mm (20 AWG) stranded; 2 x 1.5 mm (15 AWG) solid
Weight:	197 g (6.9 oz.)
Color:	Red
Internal Switches:	None
Indication:	Green = Outputs closed
Mechanical Life:	1×10^6 operations
Environmental	
Enclosure Protection:	IP40 (NEMA 1)
Operating Temperature:	-10 to 55°C (14 to 131°F)
Humidity:	90% RH at 50°C (122°F)

Specifications are subject to change without notice.

Note: The safety contacts of the STI switches are described as normally closed (N/C)—i.e., with the guard closed, actuator in place, and the machine able to be started.

■ Ordering

Model	Supply	Inputs	Outputs	Auxiliary	Part No.
SR05A24	24 VAC/DC	1 N/C	3 N/O	1 N/C	44510-0300

sti®

USA Tel. 1/888/510-4357
Canada Tel. 1/800/221-7060

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H4

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• Limit and Basic Switches • Timers • Counters • Metering Devices
• Power Supplies

Safety
• Laser Scanners • Safety Mats • Edges and Bumpers • Programmable Safety
  Controllers • Light Curtains • Safety Relays • Safety Interlock Switches