







SAFETY INTERFACES

SR Range

Single and multi function safety interfaces





SINGLE AND MULTIFUNCTION RELAYS THAT HELP TO EASE INTERFACING BETWEEN SAFETY DEVICES AND THE MACHINERY

TE Connectivity (TE) safety relays range offers competitive and performant features that can help to achieve integrated safety functions such as self-monitoring static outputs, control of external contactors (EDM), and selectable automatic or manual restart. Safety relays are devices used to control the safety-related part of control systems in such a way that machine operation is allowed when safety is confirmed.

EASE OF USE

Pluggable connections

All connections are made through a pluggable removable connector that help to ease connection/disconnection of the module.

Clear marking

Pre-marked terminal blocks. Terminals identification on the side of the module.

Four-in-one multifunction relay

One module allows different safety functions selectable via rotary switch for safety barriers, emergency stop buttons, gates monitoring, two-hand control and type 2 photocells.

User-friendly diagnostics via LEDs

Indicating status LEDs for inputs, outputs, and fail status. Help the user to diagnose the status.

FLEXIBILITY

Find the right relay for your application

Single function relays range offering is adapted to many OSSD devices such as safety light curtains, barriers, two-hand control, E-Stops, photocells. Four-in-one multifunction relay supports 4 different safety functions.

Two connection technologies

All safety relays are proposed either with popular screw technology or time saving push-in technology.

A range adapted to many applications

The range covers a wide range of safety needs of industrial applications.

Some relays are equipped with automatic or manual restart or EDM feedback input for extra external contactors monitoring.

HIGH LEVEL OF PRODUCTIVITY AND SAFETY

High safety

Type 2 and type 4 safety relays approved in accordance with:

- EN IEC 61496-1
- UL E343620

Safety level

Up to type 4 SIL 3 - SILCL 3 | PL e - Cat. 4.

A range adapted to your needs

Integrated safety functions, including self-monitoring of static outputs, control of external contactors (EDM) and selectable automatic/manual restart, supports increased productivity due to reduced downtimes.

SRS - SRK MULTI RELAYS

FEATURES

- SRS SRK MULTI relays allows four different operating modes offering the possibility to connect and control different types of safety devices, including:
 - Safety light curtains
 - Solid-state-output devices (i.e. ID safety switches)
 - Dual-channel emergency stops
 - Two-hand controls
 - Safety photocells
- Safety functions selectable via rotary switch
- Restart manual or automatic selectable
- System test input (for type 2 light curtains)



STANDARDS & PROTECTION

- Rail fastening according to EN 50022-35
- IP 20 for housing
- IP 2X for terminal block

APPROVALS











ORDERING INFORMATION - MAIN TECHNICAL DATAS

| Туре | SRS MULTI | SRK MULTI | | | | |
|----------------------------|--|-----------------------------------|--|--|--|--|
| Description | Multifunction safety interface | | | | | |
| Part number | 2448327-1 | 2448327-2 | | | | |
| Safety level | Туре | 4 SIL 3 - SILCL 3 PL e - Cat. 4 | | | | |
| Number of inputs | 4 according to std. EN 61131-2, type 3 1 according to std. EN 61131-2, type 2 | | | | | |
| EDM feedback input | 1 NC contact | | | | | |
| Safety relay outputs | 2 NO contacts 6 A (AC/DC) - 250 VAC/125VDC | | | | | |
| Type of output | Relays with forced guided contacts | | | | | |
| Response time (ms) | ≤20 | | | | | |
| Operating modes | Automatic, monitored or manual selectable via rotary switch | | | | | |
| Status display | Input - output - fail status LEDs | | | | | |
| Power supply (Vdc) | 24 (± 20%) | | | | | |
| Electrical connections | Screw clamp | Push-In | | | | |
| Operating temperature (°C) | -30 to +55 | | | | | |
| Dimensions h x w x d (mm) | 99 x 35 x 114 112 x 35 x 114 | | | | | |

SRS - SRK RANGE

Safety relays are devices used to control the safety-related part of control systems in such a way that machine operation is only allowed when safety is confirmed. It helps ensure safety by controlling signals coming from inputs like safety light curtains, emergency stop switches and locking switches and control equipment of the machine such as contactors and other devices connected to the outputs according to the results of this detection.

FEATURES

- The range includes modules for:
 - SLC 2 & SLC4 safety light curtains and OSSD (Output Signal Switching Device),
 - Two-hand controls,
 - E-stops,
 - Safety photocells and speed monitoring.
- 2 connection technologies: Screw clamp (SRS range) and Push-In (SRK range)
- Pluggable connections



STANDARDS & PROTECTION

- · Rail fastening according to EN 50022-35
- IP 20 for housing
- IP 2X for terminal block

APPROVALS











ORDERING INFORMATION - MAIN TECHNICAL DATAS

| Туре | SRS-2NO-1NC | SRK-2NO-1NC | SRS-2NO | SRK-2NO | SRS4-2NO | SRK4-2NO | | | |
|----------------------------|-----------------|---|--|------------------|---|---|--|--|--|
| Description | | Safety interface for 2 OSSD devices (like SL2C & SL4C safety light curtains) with integrated feedback input for EDM (with auxiliary contact). | | | | Safety interface for 1 OSSD device (like SLC2 & SLC4 safety light curtains) and devices equipped with 2 solid state outputs. EDM feedback input for extra external contactors monitoring. One system status PNP output. | | | |
| Part number | 2447934-1 | 2447934-2 | 2447934-3 | 2447934-4 | 2447935-1 | 2447935-2 | | | |
| Safety level | | Type 4 SIL 3 - SILCL 3 PL e - Cat. 4 | | | | | | | |
| Number of inputs | | 2 (internal co | 5 according to std. EN 61131-2, type 3 1 according to std. EN 61131-2, type 2 | | | | | | |
| EDM feedback input | | 1 NC contact | | | | | | | |
| Safety relay outputs | | IC contacts 250 VAC/125VDC | 2 NO contacts 6 A (AC/DC) - 250 VAC/125VDC | | 2 NO contacts 6 A (AC/DC) - 250 VAC/125VDC | | | | |
| Type of output | | Relays with forced guided contacts | | | | | | | |
| Response time (ms) | | ≤20 | | | | | | | |
| Operating modes | | - Automatic, monitored or manual selectable | | | | | | | |
| Status display | | Input status LED (Green) | | | | Input - output - fail status LEDs | | | |
| Power supply (Vdc) | 24 (± 20%) | | | | | | | | |
| Electrical connections | Screw clamp | Push-In | Screw clamp | Push-In | Screw clamp | Push-In | | | |
| Operating temperature (°C) | -30 to +55 | | | | | | | | |
| Dimensions h x w x d (mm) | 99 x 22,5 x 114 | 112 x 22,5 x 114 | 99 x 22,5 x 114 | 112 x 22,5 x 114 | 99 x 22,5 x 114 | | | | |





Screw clamp connection SRS Range



Push-In connection SRK Range

| Туре | SRS4M-2NO | SRK4M-2NO | SRSE-2NO | SRKE-2NO | SRSE-MA-2NO | SRKE-MA-2NO | | |
|----------------------------|---|--------------------------------------|---|------------------|---|------------------|--|--|
| Description | Safety interface for 1 OSSD device (like SL2C & SL4C safety light curtains) and devices equipped with 2 solid state outputs. EDM feedback input for extra external contactors monitoring. With integrated muting functions. | | Safety interface able to monitor 2 inputs from safety gates, emergency stop buttons and safety switches. With selectable automatic or manual start/restart command. | | Safety interface able to monitor 2 inputs from safety gates, emergency stop buttons and safety switches. With selectable automatic or manual start/restart command. Manual mode with monitored restart. | | | |
| Part number | 2447935-3 | 2447935-4 | 2447936-1 | 2447936-2 | 2447936-3 | 2447936-4 | | |
| Safety level | Type 4 SIL 3 - SILCL 3 PL e - Cat. 4 | | | | | | | |
| Number of inputs | 10 according to std. EN 61131-2, type 3 3 according to std. EN 61131-2, type 3 1 according to std. EN 61131-2, type 2 | | | | 3 according to std. EN 61131-2, type 3 1 according to std. EN 61131-2, type 2 | | | |
| EDM feedback input | 1 NC contact | | | | | | | |
| Safety relay outputs | 2 NO contacts 6 A (AC/DC) - 250 VAC/125VDC | | | | | | | |
| Type of output | Relays with forced guided contacts | | | | | | | |
| Response time (ms) | ≤20 | | | | | | | |
| Operating modes | | put according to std. 1-2, type 3 | Automatic, monitored or manual selectable | | Automatic, monitored or manual selectable | | | |
| Status display | Input/output/fail/sensor/muting status LEDs | | Input - output - fail status LEDs | | Input - output - fail status LEDs | | | |
| Power supply (Vdc) | 24 (± 20%) | | | | | | | |
| Electrical connections | Screw clamp | Push-In | Screw clamp | Push-In | Screw clamp | Push-In | | |
| Operating temperature (°C) | -30 to +55 | | | | | | | |
| Dimensions h x w x d (mm) | 99 x 35 x 114 | 112 x 35 x 114 | 99 x 22,5 x 114 | 112 x 22,5 x 114 | 99 x 22,5 x 114 | 112 x 22,5 x 114 | | |

| Туре | SRS-THC-2NO | SRK-THC-2NO | SRS2-2NO | SRK2-2NO | SRS2M-2NO | SRK2M-2NO | | |
|----------------------------|--|----------------|---|------------------|---|----------------|--|--|
| Description | Safety interface for two-hand control type III C according to EN 574. | | Safety interface for safety photocells. Connection from 1 to 4 photocells. | | Safety interfaces for safety photocells. With integrated muting functions. | | | |
| Part number | 2447937-1 | 2447937-2 | 2447938-1 | 2447938-2 | 2447938-3 | 2447938-4 | | |
| Safety level | Type 4 SIL 3 - SII | | Type 2 SIL 1 - SILCL 1 PL c - Cat. 2 | | Type 2 SIL 1 - SILCL 1 PL c - Cat. 2 | | | |
| Number of inputs | | | | | . EN 61131-2, type 3 . EN 61131-2, type 2 | | | |
| EDM feedback input | 1 NC contact | | | | | | | |
| Safety relay outputs | 2 NO contacts 6 A (AC/DC) - 250 VAC/125VDC | | | | | | | |
| Type of output | Relays with forced guided contacts | | | | | | | |
| Response time (ms) | ≤20 | | | | | | | |
| Operating modes | Automatic | | Manual or automatic, selectable from terminal block | | 1 muting enabled input according to std. EN 61131-2, type 3 | | | |
| Status display | Input - output - fail status LEDs | | Input - output - fail status LEDs | | Input/output/fail/sensor/muting status LEDs | | | |
| Power supply (Vdc) | 24 (± 20%) | | | | | | | |
| Electrical connections | Screw clamp | Push-In | Screw clamp | Push-In | Screw clamp | Push-In | | |
| Operating temperature (°C) | -30 to +55 | | | | | | | |
| Dimensions h x w x d (mm) | 99 x 35 x 114 | 112 x 35 x 114 | 99 x 22,5 x 114 | 112 x 22,5 x 114 | 99 x 35 x 114 | 112 x 35 x 114 | | |

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Brochure

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