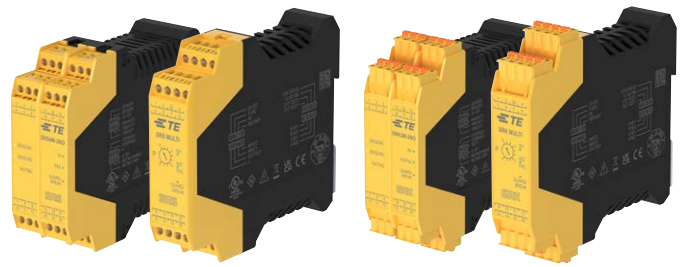# SAFETY INTERFACES

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.

Safety Interfaces
Multi functions

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

CE | UKCA | TÜV SÜD | cULus | RoHS

ORDERING INFORMATION - MAIN TECHNICAL DATAS

Type	SRS MULTI	SRK MULTI
Description	Multifunction safety interface	
Part number	2448327-1	2448327-2
Safety level	Type 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

Safety Interfaces
Single functions

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)
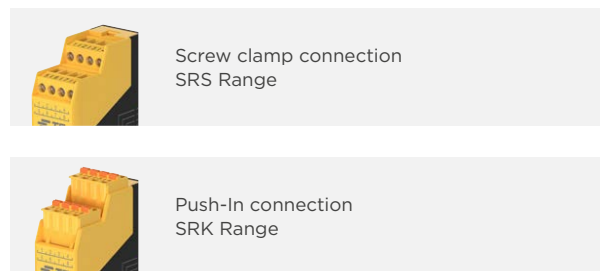- Pluggable connections

STANDARDS & PROTECTION

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

APPROVALS

CE | UKCA | TÜV SÜD | cULus | RoHS

ORDERING INFORMATION - MAIN TECHNICAL DATAS

Type	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 coils of relays)				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	2 NO + 1 NC contacts 6 A (AC/DC) - 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	

22,5 mm spacing & 16 connections modules

35 mm spacing & 24 connections modules

Screw clamp connection
SRS Range

Push-In connection
SRK Range

Type	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 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		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	1 muting enable input according to std. EN 61131-2, 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

Type	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 - SILCL 3 | PL e - Cat. 4		Type 2 SIL 1 - SILCL 1 | PL c - Cat. 2		Type 2 SIL 1 - SILCL 1 | PL c - Cat. 2	
Number of inputs	2 according to std. EN 61131-2, type 3 1 according to std. EN 61131-2, type 2		5 according to std. EN 61131-2, type 3 1 according to std. EN 61131-2, type 2		11 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		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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