

Sentry safety relays

Keep your business running with powerful and easy to use safety relays from ABB

The Sentry safety relays are powerful and easy to use safety relays, suitable for all common types of safety applications.

The Sentry series contains basic models for simple applications and easy output expansion, as well as highly flexible models with extremely accurate timer functions.

Sentry safety relays are used in both simple and more advanced safety solutions when safety devices need to be monitored according to the requirements of functional safety standards.



Continuous operation

LEDs and display

3-color LEDs allow for more status messages and simplify troubleshooting. Models with display offer preset configurations and extensive fault information.

Advanced timer functions

Timer functions with an accuracy of $\pm 1\%$ minimize unnecessary downtime.

Multi-reset

The multi-reset function enables reset of up to 10 Sentry safety relays using just one reset button.



Optimized logistics

Universal models

A single safety relay for all common safety applications reduces stock and saves warehouse space.

Multi-voltage

Multi-voltage models offer more flexibility and less stock.

Compact size

All models are only 22.5 mm wide, even models with 2 NO + 2 NO outputs.



Easy to install

Detachable terminal blocks

Detachable terminal blocks speed up connection and replacement.

Switch for reset selection

Manual or automatic reset easily selectable by switch.

Powerful outputs

Powerful outputs allow to drive larger contactors and simplify installation by saving the use of an intermediary contactor.

Safety relays Sentry



BSR10



SSR32



USR10

Ordering details

Expansion	Safety devices						Test/ Reset	Safety relay outputs				Timer function			Feature	Power supply	Type	Order code
	1 channel	2 channels with equivalent contacts	2 channels with antivalent contacts	OSSD outputs / PNP outputs	Contact mats, bumpers and safety edges ^{c)}	Two-hand devices		Manual reset (all models have auto reset)	Start/Test	3 NO + 1 NC	4 NO	2 NO + 2 delayed/delayable NO	4 NO + 1 NC	Off-delay 0.5 s				
a)	X	b)					X	X								X	BSR10	2TLA010040R0000
a)	X	b)					X	X								X	BSR11	2TLA010040R0200
a)											X					X	BSR23 ^{e)}	2TLA010041R0600
X	X	X		X			X	X								X	SSR10	2TLA010050R0000
X		X					X	X								X	SSR10M	2TLA010050R0100
X						X	X	X								X	SSR20	2TLA010051R0000
X						X	X	X								X	SSR20M	2TLA010051R0100
X	X	X		X			X			X		X				X	SSR32	2TLA010052R0400
X	X	X		X			X			X		X				X	SSR42	2TLA010053R0400
X	X	X		X				X		X		X	X	X		X	TSR10	2TLA010060R0000
X	X	X		X				X		X		X	X			X	TSR20	2TLA010061R0000
X		X						X		X		X	X			X	TSR20M	2TLA010061R0100
X	X	X	X	X	X	X	X	X		X		X	X	X		X	USR10	2TLA010070R0000
X	X	X	X	X	X	X	X			X		X	X	X		X	USR22	2TLA010070R0400

a) These models can also be used for expansion of Pluto safe transistor outputs (-24 VDC)

b) No monitoring of two-channel fault, i.e. max Category 3 without fault exclusion.

c) The safety relay detects a short-circuit, not a change in resistance.

d) Off-delay, On-delay, Time bypass or Time reset.

e) BSR23 must be monitored by another device in order to reach higher than Category 1/PL c according to EN ISO 13849-1, for example a safety relay, a safety PLC or an Orion light guard (EDM function).

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