Product overview

ReLy

The safety relay for high ease of use

SICK
Sensor Intelligence.

Advantages

Easy handling, efficient operation

You can always relay on the ReLy. Thanks to its clever functions, it provides more efficiency in a simple way. You benefit from fast production startup, reduced downtime and more compact machine designs.

The thin, user-friendly housing ensures space- and cost-efficient installation and commissioning

Quick troubleshooting and restart of your application thanks to diagnostic LEDs as well as controllable lamps and reset push-buttons

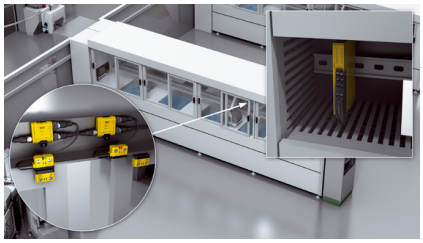
More compact machine designs and faster processes as a result of shorter response times and reduced safety distances

With the ReLy, you get more out of your applications thanks to the high level of usability.

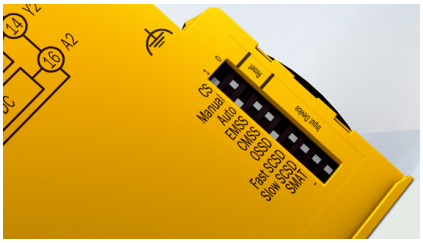
Versatile application, simple selection

From the simple evaluation of a safety light curtain to time-delayed switching: The ReLy has the right variant for any requirement and can thereby be used in nearly any of your applications. This means you can remain flexible in your operations and rely on productivity-enhancing safety concepts from SICK.

Safety sensors of any kind can be monitored with a high level of safety in a wide variety of applications



The RLY3-LOOP1 in combination with the Flexi Loop ensures safe and cost-efficient series connection of safety sensors



The RLY3-MULT1 multifunctional relay can be configured using DIP switches and is also suitable for complementary safety sensors

The ReLy offers you the right safety relay for any application.

Technical data overview

Safety level	PL e, SIL 3
Applications	Evaluation unit Output expansion module for OSSDs Evaluation unit for stop category 1 applications (depends on variant)
Compatible sensor types	Safety sensors with potential-free outputs Two-hand controls Type III C, in accordance with EN ISO 13851 Flexi Loop safe series connection Safety sensors with OSSDs Safety sensors with test input Safety pressure mats (depends on variant)
Enabling current paths	2 3 4 2+1 (depends on variant)
Sensor monitoring	Discrepancy monitoring Cross-circuit detection Sequence monitoring (depends on variant)
Typical response time	10 ms 12 ms 79 ms (depends on variant)
Configuration method	Hard wired DIP switch (depends on variant)
Housing width	18 mm 28 mm (depends on variant)

Product description

High ease of use, more space in the control cabinet, quicker production starts, more compact machines with shorter safety distances and reduced downtime: With the clever ReLy safety relay, you get even more out of your application. In addition to high safety with Performance Level e, ReLy is the first product in the world to offer certification in accordance with the new Machinery Regulation (EU) 2023/1230. This means you are investing not only in a high-performance product but also in long-term legal certainty. Thanks to clearly defined areas of application, selecting the right variant is simple as can be.

At a glance

- Clever, user-friendly housing functions
- Thin design with construction widths from 18 mm
- Fast response times of under 10 ms (depending on the type)
- Status LEDs and diagnostic interfaces
- Variants for universal application and for safe series connection with Flexi Loop available

Your benefits

- Reduce commissioning work thanks to quick installation and wiring with a single front connector
- Quick module exchange thanks to the simple one-click mounting rail release
- Significant space savings in the control cabinet with a 20% thinner housing compared to the predecessor version
- Design machines more compactly and benefit from faster processes thanks to short response times and reduced safety distances
- Increase machine availability with comprehensive diagnostic options
- Long service life even in highly dynamic processes with many switching cycles

Fields of application

- Monitoring of sensors with OSSD outputs, equivalent and complementary safety switches as well as two-hand control units
- Integration of the Flexi Loop safe series connection
- Stop category 1 applications with time-delayed switching of drive elements
- As an output extension of safety controllers

Ordering information

Other models and accessories ➜ www.sick.com/ReLy

- **Applications:** evaluation unit
- **Connection type:** Front connector with spring terminals
- **External device monitoring (EDM):** integrated
- **Housing width:** 18 mm

Compatible sensor types	Restart interlock	Outputs	Type	Part no.
Flexi Loop safe series connection	✓	3 enabling current paths (safe), 2 application diagnostic outputs (not safe), 1 test pulse output (not safe)	RLY3-LOOP100	1100696
Safety sensors with OSSDs	✓	2 enabling current paths (safe), 2 application diagnostic outputs (not safe), 1 test pulse output (not safe)	RLY3-OSSD200	1085344
		3 enabling current paths (safe), 2 application diagnostic outputs (not safe), 1 test pulse output (not safe)	RLY3-OSSD300	1099969
Safety sensors with OSSDs, Safety sensors with test input, safety sensors with potential-free outputs, Safety pressure mats	✓	3 enabling current paths (safe), 2 application diagnostic outputs (not safe), 2 test pulse outputs (not safe)	RLY3-MULT100	1100692
Safety sensors with potential-free outputs	✓	2 enabling current paths (safe), 2 application diagnostic outputs (not safe), 3 test pulse outputs (not safe)	RLY3-EMSS100	1085345
		3 enabling current paths (safe), 2 application diagnostic outputs (not safe), 3 test pulse outputs (not safe)	RLY3-EMSS300	1099973
Two-hand controls Type III C, in accordance with EN ISO 13851	–	2 enabling current paths (safe), 1 application diagnostic output (not safe)	RLY3-HAND100	1085346

- **Applications:** output expansion module for OSSDs
- **Compatible sensor types:** safety sensors with OSSDs
- **Connection type:** Front connector with spring terminals
- **External device monitoring (EDM):** Via path

Outputs	Housing width	Type	Part no.
2 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe)	18 mm	RLY3-OSSD100	1085343
4 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe), 1 signaling current path (not safe)	28 mm	RLY3-OSSD400	1099971

- **Applications:** evaluation unit for stop category 1 applications
- **Compatible sensor types:** safety sensors with OSSDs, safety sensors with potential-free outputs
- **Connection type:** Front connector with spring terminals

Restart interlock	External device monitoring (EDM)	Outputs	Housing width	Type	Part no.
✓	Integrated	2 enabling current paths (safe), 1 release-delayed	18 mm	RLY3-TIME100	1100688

Restart interlock	External device monitoring (EDM)	Outputs	Housing width	Type	Part no.
		enabling current path, for stop category 1 applications (safe), 2 application diagnostic outputs (not safe), 3 test pulse outputs (not safe)			

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com

SICK
Sensor Intelligence.