



# RLY3-OSSD100

ReLy

SAFETY RELAYS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
RLY3-OSSD100	1085343

Other models and accessories → [www.sick.com/ReLy](http://www.sick.com/ReLy)

### Detailed technical data

#### Features

<b>Applications</b>	Output expansion module for OSSDs
<b>Compact sensor types</b>	Safety sensors with OSSDs

#### Safety-related parameters

<b>Safety integrity level</b>	SIL3 (IEC 61508) SILCL3 (IEC 62061)
<b>Category</b>	Category 4 (ISO 13849-1)
<b>Performance level</b>	PL e (ISO 13849-1)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	1.0 x 10 <sup>-9</sup>
<b>T<sub>M</sub> (mission time)</b>	20 years (ISO 13849-1)
<b>Safe state in the event of a fault</b>	The safety relay has no internal fault detection and is unable to assume a safe status in the event of a fault. Fault detection is performed by the connected safety-related logic unit.
<b>Stop category</b>	0 (IEC 60204-1)

#### Functions

<b>Path for external device monitoring (EDM)</b>	✓
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#### Interfaces

<b>Connection type</b>	Front connector with spring terminals
<b>Inputs</b>	2 safety inputs
<b>Outputs</b>	2 enabling current paths (safe) 1 feedback current path (for use as external device monitoring, not safe)
<b>Display elements</b>	LEDs

#### Electrical data

##### Operating data

<b>Voltage supply</b>	Passive (no active voltage supply)
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<b>Power consumption (input circuits)</b>	≤ 1.5 W (DC)
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Safety inputs

<b>Number</b>	2
<b>Input voltage</b>	
	HIGH 24 V DC (15 V ... 30 V)
	LOW 0 V DC (-3 V ... 5 V)
<b>Input current</b>	≤ 50 mA
<b>Test pulse width</b>	≤ 1 ms
<b>Test pulse rate</b>	≤ 10 Hz

Enabling current paths

<b>Response time</b>	12 ms
<b>Number</b>	2
<b>Type of output</b>	N/O contacts, positively guided
<b>Contact material</b>	Silver alloy, gold flashed
<b>Switching voltage</b>	10 V AC ... 230 V AC 10 V DC ... 230 V DC
<b>Switching current</b>	10 mA ... 6 A
<b>Total current</b>	12 A
<b>Mechanical life</b>	10,000,000 Schaltspiele
<b>Overvoltage category</b>	III (EN 60664-1)
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	6 kV (EN 60664-1)

Check-back current paths

<b>Number</b>	1
<b>Type of output</b>	N/C contact, positively guided
<b>Contact material</b>	Silver alloy, gold flashed
<b>Switching voltage</b>	15 V AC ... 30 V AC 15 V DC ... 30 V DC
<b>Switching current</b>	3 mA ... 100 mA
<b>Mechanical life</b>	10,000,000 Schaltspiele

Mechanical data

<b>Dimensions (W x H x D)</b>	18 mm x 124.6 mm x 85.5 mm
<b>Weight</b>	130 g

Ambient data

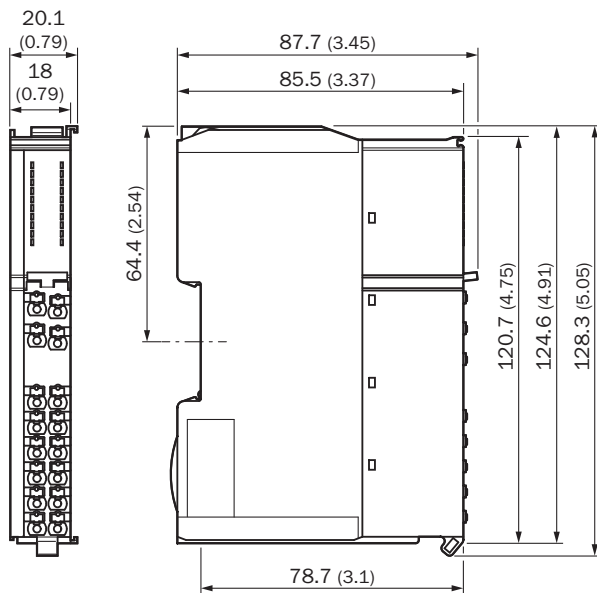
<b>Enclosure rating</b>	IP20 (IEC 60529)
<b>Ambient operating temperature</b>	-25 °C ... +55 °C
<b>Storage temperature</b>	-25 °C ... +70 °C
<b>Air humidity</b>	10 % ... 95 %, Non-condensing
<b>Interference emission</b>	According to IEC 61000-6-4
<b>Interference resistance</b>	According to IEC 61326-3-1 According to IEC 61000-6-2 According to IEC 60947-5-1

### Classifications

<b>ECl@ss 5.0</b>	27371990
<b>ECl@ss 5.1.4</b>	27371990
<b>ECl@ss 6.0</b>	27371819
<b>ECl@ss 6.2</b>	27371819
<b>ECl@ss 7.0</b>	27371819
<b>ECl@ss 8.0</b>	27371819
<b>ECl@ss 8.1</b>	27371819
<b>ECl@ss 9.0</b>	27371819
<b>ECl@ss 10.0</b>	27371819
<b>ECl@ss 11.0</b>	27371819
<b>ETIM 5.0</b>	EC001449
<b>ETIM 6.0</b>	EC001449
<b>ETIM 7.0</b>	EC001449
<b>UNSPSC 16.0901</b>	41113704

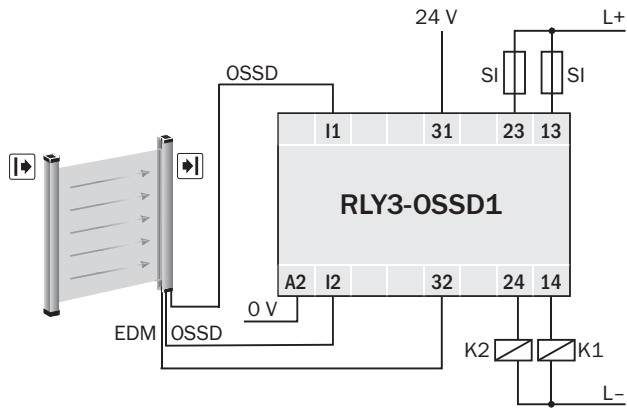
### Dimensional drawing (Dimensions in mm (inch))

EMSS1, HAND1, OSSD1, OSSD2, TIME1



## Connection diagram

RLY3-OSSD1: at safety light curtain with external device monitoring



## 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](http://www.sick.com)