



# RLY3-OSSD400

ReLy

SAFETY RELAYS

**SICK**  
Sensor Intelligence.



Illustration may differ



## Ordering information

| Type         | part no. |
|--------------|----------|
| RLY3-OSSD400 | 1099971  |

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>Compatible sensor types</b> | Safety sensors with OSSDs         |

### Safety-related parameters

|                                                                           |                          |
|---------------------------------------------------------------------------|--------------------------|
| <b>Safety integrity level</b>                                             | SIL 3 (IEC 61508)        |
| <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> | $1.0 \times 10^{-9}$     |
| <b>T<sub>M</sub> (mission time)</b>                                       | 20 years (ISO 13849-1)   |
| <b>Stop category</b>                                                      | 0 (IEC 60204-1)          |

### Functions

|                                                  |   |
|--------------------------------------------------|---|
| <b>Path for external device monitoring (EDM)</b> | ✓ |
|--------------------------------------------------|---|

### Interfaces

|                         |                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Connection type</b>  | Front connector with spring terminals                                                                                                               |
| <b>Inputs</b>           | 2 safety inputs                                                                                                                                     |
| <b>Outputs</b>          | 4 enabling current paths (safe)<br>1 feedback current path (for use as external device monitoring, not safe)<br>1 signaling current path (not safe) |
| <b>Display elements</b> | LEDs                                                                                                                                                |

### Electronics

|                                           |                                    |
|-------------------------------------------|------------------------------------|
| <b>Voltage supply</b>                     | Passive (no active voltage supply) |
| <b>Power consumption (input circuits)</b> | ≤ 2.5 W (DC)                       |

|                                                   |                                              |
|---------------------------------------------------|----------------------------------------------|
| <b>Safety inputs</b>                              |                                              |
| Number                                            | 2                                            |
| Input voltage HIGH                                | 24 V DC (15 V ... 30 V)                      |
| Input voltage LOW                                 | 0 V DC (-3 V ... 5 V)                        |
| Input current                                     | ≤ 60 mA                                      |
| Test pulse width                                  | ≤ 1 ms                                       |
| Test pulse rate                                   | ≤ 10 Hz                                      |
| <b>Enabling current paths</b>                     |                                              |
| Response time (opening of enabling current paths) | 12 ms                                        |
| Number                                            | 4                                            |
| Type of output                                    | N/O contacts, positively guided              |
| Contact material                                  | Silver alloy, gold flashed                   |
| Switching voltage                                 | 10 V AC ... 230 V AC<br>10 V DC ... 230 V DC |
| Switching current                                 | 10 mA ... 6 A                                |
| Total current                                     | 12 A                                         |
| Mechanical life                                   | 1 x 10 <sup>7</sup> switching cycles         |
| Overvoltage category                              | III (EN 60664-1)                             |
| Rated impulse withstand voltage U <sub>imp</sub>  | 6 kV (EN 60664-1)                            |
| <b>Check-back current paths</b>                   |                                              |
| Number                                            | 1                                            |
| Type of output                                    | N/C contact, positively guided               |
| Contact material                                  | Silver alloy, gold flashed                   |
| Switching voltage                                 | 10 V AC ... 30 V AC<br>10 V DC ... 30 V DC   |
| Switching current                                 | 3 mA ... 100 mA                              |
| Mechanical life                                   | 1 x 10 <sup>7</sup> switching cycles         |
| <b>Signaling current paths</b>                    |                                              |
| Number                                            | 1                                            |
| Type of output                                    | N/C contact, positively guided               |
| Contact material                                  | Silver alloy, gold flashed                   |
| Switching voltage                                 | 10 V AC ... 30 V AC<br>10 V DC ... 30 V DC   |
| Switching current                                 | 10 mA ... 100 mA                             |
| Mechanical life                                   | 1 x 10 <sup>7</sup> switching cycles         |

## Mechanics

|                               |                            |
|-------------------------------|----------------------------|
| <b>Dimensions (W x H x D)</b> | 28 mm x 124.6 mm x 85.5 mm |
| <b>Weight</b>                 | 180 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>            | ≤ 95 %, Non-condensing                                                                 |
| <b>Interference emission</b>   | According to IEC 61000-6-4                                                             |
| <b>Interference resistance</b> | According to IEC 61326-3-1<br>According to IEC 61000-6-2<br>According to IEC 60947-5-1 |

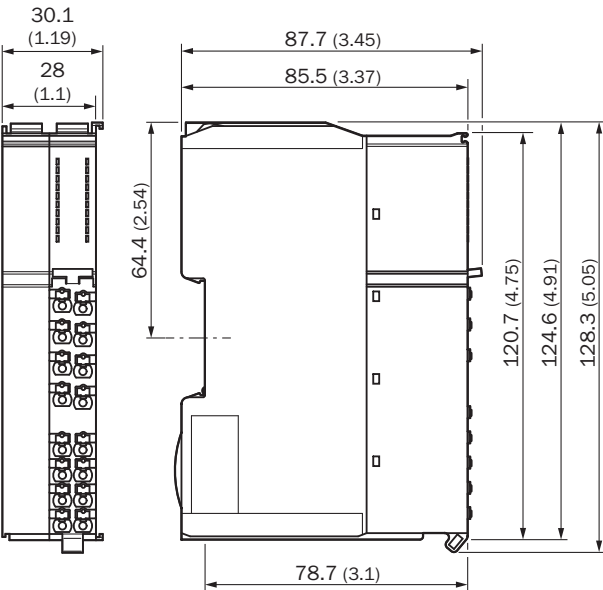
### Certificates

|                                       |   |
|---------------------------------------|---|
| <b>EU declaration of conformity</b>   | ✓ |
| <b>UK declaration of conformity</b>   | ✓ |
| <b>ACMA declaration of conformity</b> | ✓ |
| <b>China RoHS</b>                     | ✓ |
| <b>CCC certificate</b>                | ✓ |
| <b>UK-Type-Examination approval</b>   | ✓ |
| <b>cULus certificate</b>              | ✓ |
| <b>EAC certificate / DoC</b>          | ✓ |
| <b>cTUVus certificate</b>             | ✓ |
| <b>S Mark certificate</b>             | ✓ |
| <b>EC-Type-Examination approval</b>   | ✓ |
| <b>Third party certificate</b>        | ✓ |

### Classifications

|                       |          |
|-----------------------|----------|
| <b>ECLASS 5.0</b>     | 27371990 |
| <b>ECLASS 5.1.4</b>   | 27371990 |
| <b>ECLASS 6.0</b>     | 27371819 |
| <b>ECLASS 6.2</b>     | 27371819 |
| <b>ECLASS 7.0</b>     | 27371819 |
| <b>ECLASS 8.0</b>     | 27371819 |
| <b>ECLASS 8.1</b>     | 27371819 |
| <b>ECLASS 9.0</b>     | 27371819 |
| <b>ECLASS 10.0</b>    | 27371819 |
| <b>ECLASS 11.0</b>    | 27371819 |
| <b>ECLASS 12.0</b>    | 27371819 |
| <b>ETIM 5.0</b>       | EC001449 |
| <b>ETIM 6.0</b>       | EC001449 |
| <b>ETIM 7.0</b>       | EC001449 |
| <b>ETIM 8.0</b>       | EC001449 |
| <b>UNSPSC 16.0901</b> | 41113704 |

Dimensional drawing OSSD4



Dimensions in mm (inch)

## 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)