Data sheet

RLY3-OSSD300

ReLy

SAFETY RELAYS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	part no.
RLY3-OSSD300	1099969

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

Detailed technical data

Features

Applications	Evaluation unit
Compatible sensor types	Safety sensors with OSSDs

Safety-related parameters

Safety integrity level	SIL 3 (IEC 61508)
Category	Category 4 (ISO 13849-1)
Performance level	PL e (ISO 13849-1)
PFH_D (mean probability of a dangerous failure per hour)	1.0×10^{-9}
T_M (mission time)	20 years (ISO 13849-1)
Stop category	0 (IEC 60204-1)

Functions

Sensor monitoring	Sequence monitoring
Restart interlock	✓
Reset	Automatic Manual
External device monitoring (EDM)	✓

Interfaces

Connection type	Front connector with spring terminals
Inputs	2 safety inputs 1 input for reset pushbutton or external device monitoring (EDM)
Outputs	3 enabling current paths (safe) 2 application diagnostic outputs (not safe)

	1 test pulse output (not safe)
Display elements	LEDs
Configuration method	Hard wired

Electronics

Voltage supply	PELV or SELV
Supply voltage V_S	24 V DC (16.8 V ... 30 V)
Residual ripple	≤ 2.4 V
Power consumption	≤ 2.5 W (DC)
Safety inputs	
Number	2
Input voltage HIGH	24 V DC (11 V ... 30 V)
Input voltage LOW	0 V DC (–3 V ... 5 V)
Input current	4 mA ... 6 mA
Test pulse width	≤ 1 ms
Test pulse rate	≤ 10 Hz
Reset pushbutton or external device monitoring (EDM) input	
Number	1
Input voltage HIGH	24 V DC (11 V ... 30 V)
Input voltage LOW	0 V DC (–3 V ... 5 V)
Input current	4 mA ... 6 mA
Enabling current paths	
Response time (opening of enabling current paths)	12 ms
Number	3
Type of output	N/O contacts, positively guided
Contact material	Silver alloy, gold flashed
Switching voltage	10 V AC ... 230 V AC
	10 V DC ... 230 V DC
Switching current	10 mA ... 6 A
Total current	12 A
Mechanical life	1 x 10^7 switching cycles
Overvoltage category	III (EN 60664-1)
Rated impulse withstand voltage U_{imp}	6 kV (EN 60664-1)
Application diagnostic outputs	
Number	2
Type of output	Push-pull semiconductor output, short-circuit protected
Output voltage HIGH	≥ V_s – 3 V
Output voltage LOW	≤ 3 V
Input current (NPN)	≤ 15 mA
Output current (PNP)	≤ 120 mA
Test pulse outputs	
Number	1

Type of output	PNP semiconductors, short-circuit protected
Output voltage	≥ V_s – 3 V
Test pulse width	2 ms
Test pulse interval	40 ms

Mechanics

Dimensions (W x H x D)	18 mm x 124.6 mm x 85.5 mm
Weight	150 g

Ambient data

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

Certificates

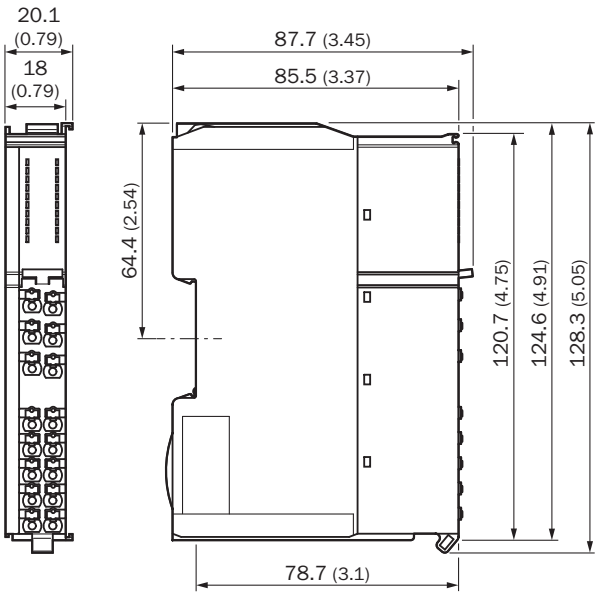
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China-RoHS	✓
CCC certificate	✓
UK-Type-Examination approval	✓
cULus certificate	✓
EAC certificate / DoC	✓
cTUVus certificate	✓
S Mark certificate	✓
EC-Type-Examination approval	✓
Third party certificate	✓

Classifications

ECLASS 5.0	27371990
ECLASS 5.1.4	27371990
ECLASS 6.0	27371819
ECLASS 6.2	27371819
ECLASS 7.0	27371819
ECLASS 8.0	27371819
ECLASS 8.1	27371819
ECLASS 9.0	27371819
ECLASS 10.0	27371819
ECLASS 11.0	27371819
ECLASS 12.0	27371819

ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
UNSPSC 16.0901	41113704

Dimensional drawing EMSS3, LOOP1, MULT1, OSSD3



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