

RLY3-OSSD300

ReLy

SAFETY RELAYS





Ordering information

Туре	part no.
RLY3-OSSD300	1099969

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

Illustration may differ



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)
$\mbox{PFH}_{\mbox{\scriptsize D}}$ (mean probability of a dangerous failure per hour)	1.0 x 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

PELV or SELV	Electronics	
Residual ripple	Voltage supply	PELV or SELV
Safety inputs	Supply voltage V _S	24 V DC (16.8 V 30 V)
Number 2 24 V DC (11 V 30 V) 1	Residual ripple	≤ 2.4 V
Number Input voltage HIGH 24 V DC (11 V 30 V) Input voltage LOW Input current A Feat pulse width 51 ms 52 M	Power consumption	≤ 2.5 W (DC)
Input voltage HIGH	Safety inputs	
Input voitage LOW Input current 4 mA 6 mA Test pulse width 5 l ms Test pulse rate Reset pushbutton or external device monitoring (EDM) input Number Input voitage HIGH 24 V DC (11 V 30 V) Input voitage LOW Input Voitage LOW Input current Paths Response time (opening of enabling current paths) Number 3 Type of output Contact material Silver alloy, gold flashed Switching voitage 10 V AC 230 V AC 10 V DC 230 V DC Switching current 12 A 10 mA 6 A 10 V DC 230 V DC Switching current 12 A Mechanical life 1 x 10 switching cycles Overvoitage category III (EN 60664-1) Application diagnostic outputs Number 2 Type of output Voitage LIGH 2 V, S 3 V Input current (PNP) Input current (PNP) 5 L3 D mA Test pulse outputs	Number	2
Input current Test pulse width Test pulse rate Reset pushbutton or external device monitoring (EDM) input Number Input voltage HIGH Input voltage LOW Input voltage LOW Input current Paths Response time (opening of enabling current paths) Number Type of output Contact material Switching voltage 10 V DC (-3 V 5 V) 10 V DC (-3 V 5 V) 11 V 6 mA 12 ms 12	Input voltage HIGH	24 V DC (11 V 30 V)
Test pulse with Test pulse rate Reset pushbutton or external device monitoring (EDM) input Number Input voltage HIGH Input voltage LOW Input current paths Response time (opening of enabling current paths) Number Type of output Contact material Switching voltage Switching current Abechanical life Overvoltage category Rated impulse withstand voltage Uinpo Application diagnostic outputs Number Type of output Coutput voltage IGM Output voltage HIGM Output voltage HIGM Output voltage HIGM Output voltage LOW Input current (NPN) Output current (NPN) Test pulse outputs Sumber Symbol Switching voltage Coutputs Sumber Symbol Switching voltage Coutput Switching voltage Coutput Switching voltage Coutput Switching Coutput voltage HIGM Output voltage HIGM Output voltage LOW Signal Switching Coutput Current (NPN) Output current (NPN) Switching Coutput Switchi	Input voltage LOW	0 V DC (-3 V 5 V)
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Reset pushbutton or external device monitoring (EDM) input Number 1	Test pulse width	≤1 ms
Number 1 1 1 1 1 1 1 1 1	Test pulse rate	≤ 10 Hz
Input voltage HIGH 124 V DC (11 V 30 V) 1		
Input voltage LOW Input current Enabling current paths Response time (opening of enabling current paths) Number Type of output Contact material Switching voltage Switching current Total current Mechanical life Overvoltage category Rated impulse withstand voltage Uimp Application diagnostic outputs Input voltage LOW Input voltage LOW Input current (NPN) Output voltage LOW Input current (NPN) Output current (PNP) Test pulse outputs I Lam A 6 mA 12 ms N/O contacts, positively guided Silver alloy, gold flashed 10 V AC 230 V AC 10 V DC 230 V DC 10 v AC 230 V AC 10 v DC 230 V DC 10 v AC 230 V AC 10 v DC 230 V DC 10 v AC 230 V AC 10 v DC 230 V DC 10 v AC 230 V AC 10 v DC 230 V DC 10 v AC 230 V AC 10 v DC 230 V DC 10 v AC 230 V AC 10 v DC 230 V DC 10 v AC 230 V AC 10 v DC	Number	1
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Contact material 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 Output voltage HIGH Output voltage LOW Input current (NPN) Input current (NPN) Output current (PNP) Test pulse outputs	Number	3
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10 ∨ DC 230 ∨ DC Switching current 10 mA 6 A Total current Mechanical life 1 x 10 ⁷ switching cycles Overvoltage category Rated impulse withstand voltage U _{imp} Application diagnostic outputs Number Type of output Output voltage HIGH Output voltage HIGH Output voltage LOW Input current (NPN) Output current (PNP) Test pulse outputs 10 ∨ DC 230 ∨ DC 10 mA 6 A 12 A 12 A 18 (EN 60664-1) 6 kV (EN 60664-1) 6 kV (EN 60664-1) 6 kV (EN 60664-1) 7 ype of output Push-pull semiconductor output, short-circuit protected ≥ V _s − 3 ∨ Output voltage LOW Input current (NPN) ≤ 15 mA Output current (PNP)	Contact material	Silver alloy, gold flashed
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Rated impulse withstand voltage U_{imp} 6 kV (EN 6064-1) Application diagnostic outputs Number 2 Type of output Push-pull semiconductor output, short-circuit protected Output voltage HIGH $\geq V_S - 3 \text{ V}$ Output voltage LOW $\leq 3 \text{ V}$ Input current (NPN) $\leq 15 \text{ mA}$ Output current (PNP) $\leq 120 \text{ mA}$		
Application diagnostic outputs Number 2 Type of output Push-pull semiconductor output, short-circuit protected Output voltage HIGH $\geq V_s - 3 V$ Output voltage LOW $\leq 3 V$ Input current (NPN) $\leq 15 \text{ mA}$ Output current (PNP) Test pulse outputs		
Number 2 Type of output Push-pull semiconductor output, short-circuit protected Output voltage HIGH $\geq V_s - 3 V$ Output voltage LOW $\leq 3 V$ Input current (NPN) $\leq 15 \text{ mA}$ Output current (PNP) $\leq 120 \text{ mA}$ Test pulse outputs	r	6 kV (EN 60664-1)
Type of output Output voltage HIGH Output voltage LOW Output voltage LOW Input current (NPN) Output current (PNP) Test pulse outputs Push-pull semiconductor output, short-circuit protected $\geq V_s - 3 V$ $\leq 3 V$ $\leq 15 \text{ mA}$ $\leq 120 \text{ mA}$		
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Output voltage LOW ≤ 3 V Input current (NPN) ≤ 15 mA Output current (PNP) ≤ 120 mA Test pulse outputs		
Input current (NPN) ≤ 15 mA Output current (PNP) ≤ 120 mA Test pulse outputs	Output voltage HIGH	≥ V _s - 3 V
Output current (PNP) ≤ 120 mA Test pulse outputs		
Test pulse outputs	. , ,	
		≤ 120 mA
Number 1		
	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

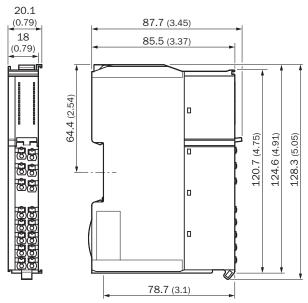
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China-RoHS	✓
CCC certificate	✓
UK-Type-Examination approval	✓
cULus certificate	✓
EAC certificate / DoC	✓
cTUVus certificate	✓
S Mark certificate	✓
EC-Type-Examination approval	✓
Third party certificate	✓

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.

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For us, that is "Sensor Intelligence."

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