Product data sheet



RLY3-HAND100

ReLy

SAFETY RELAYS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
RLY3-HAND100	1085346

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

Detailed technical data

Features

Applications	Evaluation unit
Compatible sensor types	Two-hand controls Type III C, in accordance with EN 574

Safety-related parameters

Safety integrity level	SIL3 (IEC 61508) SILCL3 (IEC 62061)
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)
Safe state in the event of a fault	The N/O is open; in other words, the safety-related enabling current paths are interrupted.
Stop category	0 (IEC 60204-1)

Functions

External device monitoring (EDM)	✓

Interfaces

Connection type	Front connector with spring terminals
Inputs	4 safety capable inputs for connecting 2 control devices (both with normally closed and normally open) 1 input for external device monitoring (EDM)
Outputs	2 enabling current paths (safe) 1 application diagnostic output (not safe)
Display elements	LEDs
Configuration method	Hard wired

Electrical data

Operating data

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	4
Input voltage	
HIGH	24 V DC (11 V ... 30 V)
LOW	0 V DC (–3 V ... 5 V)
Input current	4 mA ... 6 mA
Synchronization time (between the actuators)	≤ 500 ms

External device monitoring input (EDM)

Number	1
Input voltage	
HIGH	24 V DC (11 V ... 30 V)
LOW	0 V DC (–3 V ... 5 V)
Input current	4 mA ... 6 mA

Enabling current paths

Response time	10 ms
Number	2
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	1
Type of output	Push-pull semiconductor output, short-circuit protected
Output voltage	
HIGH	≥ V_S – 3 V
LOW	≤ 3 V
Input current (NPN)	≤ 15 mA
Output current (PNP)	≤ 120 mA

Mechanical data

Dimensions (W x H x D)	18 mm x 124.6 mm x 85.5 mm

Weight	130 g

Ambient data

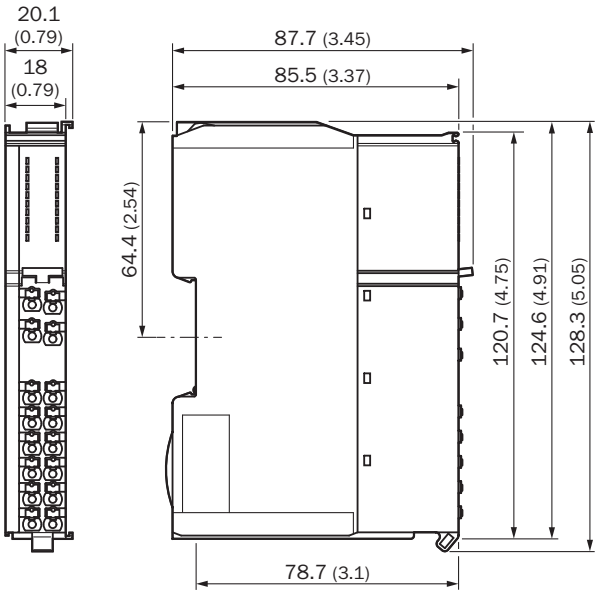
Enclosure rating	IP20 (IEC 60529)
Ambient operating temperature	–25 °C ... +55 °C
Storage temperature	–25 °C ... +70 °C
Air humidity	10 % ... 95 %, Non-condensing
Interference emission	According to IEC 61000-6-4
Interference resistance	According to IEC 61326-3-1 According to IEC 61000-6-2 According to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

Classifications

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

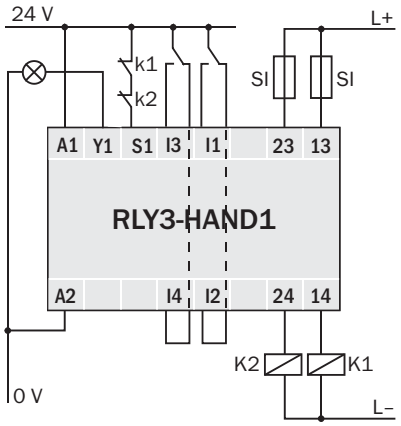
Dimensional drawing (Dimensions in mm (inch))

EMSS1, HAND1, OSSD1, OSSD2, TIME1



Connection diagram

RLY3-HAND1: two-hand control device, dual-channel output circuit and external device monitoring



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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.”

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