Product data sheet



UE42-2HD2D2

UE42-2HD

SAFETY RELAYS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
UE42-2HD2D2	6024878

Other models and accessories → www.sick.com/UE42-2HD

Detailed technical data

Safety-related parameters

Safety integrity level	SIL3 (IEC 61508) SILCL3 (EN 62061)
Category	Category 4 (EN ISO 13849)
Performance level	PL e (EN ISO 13849)
B_{10d} parameter	1.26 x 10^6 switching cycles (AC-15, 230 V, I = 1.5 A) 5.9 x 10^6 switching cycles (AC-15, 230 V, I = 0.75 A) 4.35 x 10^5 switching cycles (DC-13, 24 V, I = 2.5 A) 1 x 10^7 switching cycles (DC-13, 24 V, I = 0.63 A)
PFH_D (mean probability of a dangerous failure per hour)	3.0 x 10^{-8} (EN ISO 13849)
T_M (mission time)	20 years (EN ISO 13849)

Interfaces

Connection type	Fixed screw terminals
Number of enabling current paths (N/O)	2, relevant for safety

Electrical data

Operating data

Voltage supply	A1, A2
Output circuit > 25 V AC / 60 V DC	PELV
Output circuit ≤ 25 V AC / 60 V DC	PELV or SELV
Supply voltage V_S	A1, A2 24 V DC (20.4 V DC ... 26.4 V DC)
Residual ripple	(≤ 2.4 V_{pp}) [1]
Power consumption	(≤ 2.4 W (DC))

[1] In DC operation, within the limits of V_S.

Overvoltage category	II
Rated insulation voltage U_i	300 V AC
Rated impulse withstand voltage U_{imp}	4 kV
Test voltage	2 kV (50 Hz) (EN 60439-1)

[1] In DC operation, within the limits of V_S.

Input circuits: Y11, Y12, Y14, Y21, Y22, Y23

Control voltage	24 V DC
Control current	40 mA
Short-circuit current	2 A, between Y14, Y22 and A2
Short-circuit protection	PTC resistor

Output current paths: 13/14, 23/24, 31/32

Response time	50 ms (≤ 50 ms)
Number of enabling current paths (N/O)	2, relevant for safety
Number of signaling current paths (normally closed)	1, not safety-relevant
Contact type	Positively driven
Contact material	Silver alloy, gold flashed
Switching voltage	
Enabling current path	10 V AC ... 230 V AC 10 V DC ... 300 V DC
Signaling current path	10 V AC ... 230 V AC 10 V DC ... 300 V DC
Current-carrying capacity per OSSD	
Enabling current path	10 mA ... 6 A
Signaling current path	10 mA ... 6 A
Total current	≤ 12 A
Usage category	AC-15/DC-13 (EN 60947-5-1)
Rated operating current (voltage)	4 A (230 V AC) 360 switching cycles/h 3 A (230 V AC) 3600 switching cycles/h 4 A (24 V DC) 360 switching cycles/h 2.5 A (24 V DC) 3600 switching cycles/h
Switching frequency	≤ 3600/h
Mechanical life (relay contacts)	1×10^7 switching cycles
Electrical life (relay contacts)	2×10^6 switching cycles

Mechanical data

Dimensions (W x H x D)	22.5 mm x 114 mm x 96.5 mm
Contamination rating	3 (EN 50178)
Weight	0.2 kg

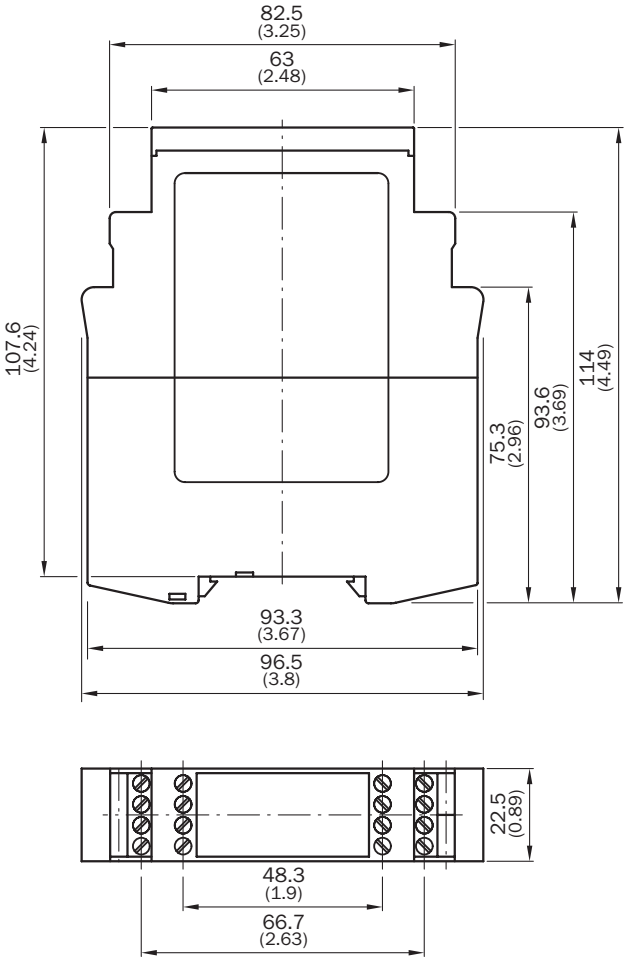
Classifications

ECl@ss 5.0	27371990
ECl@ss 5.1.4	27371990
ECl@ss 6.0	27371819
ECl@ss 6.2	27371819

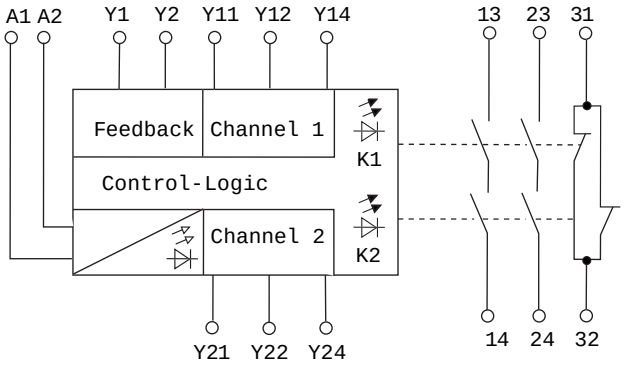
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ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
UNSPSC 16.0901	41113704

Dimensional drawing (Dimensions in mm (inch))

Safety relay



Connection diagram



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.”

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