

UE42-2HD2D2

UE42-2HD

SAFETY RELAYS





Ordering information

Туре	part no.
UE42-2HD2D2	6024878

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

Illustration may differ





Detailed technical data

Safety-related parameters

Safety integrity level	SIL 3 (IEC 61508)
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)
$\ensuremath{PFH_D}$ (mean probability of a dangerous failure per hour)	$3.0 \times 10^{-8} $ (EN ISO 13849)
T _M (mission time)	20 years (EN ISO 13849)

Electronics - Operating data

Voltage supply	A1, A2
Output circuit > 25 V AC / 60 V DC	PELV
Output circuit \leq 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	$(\leq 2.4 \text{ V}_{pp})^{1)}$
Power consumption	(≤ 2.4 W (DC))
Overvoltage category	II
Rated insulation voltage U _i	300 V AC
Rated impulse withstand voltage $\mathbf{U}_{\mathrm{imp}}$	4 kV
Test voltage	2 kV (50 Hz) (EN 60439-1)

 $^{^{1)}}$ In DC operation, within the limits of V_S.

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

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

Electronics - 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, 10 V DC 230 V AC, 300 V DC
Current loading	
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 x 10 ⁷ switching cycles
Electrical life (relay contacts)	2 x 10 ⁶ switching cycles

Mechanics

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

Certificates

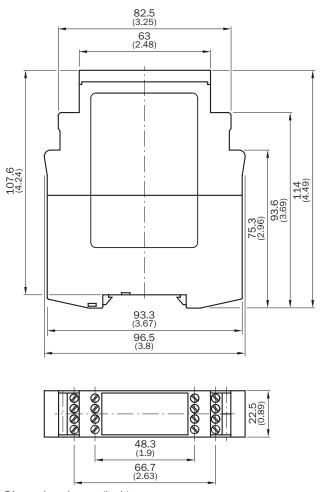
EU declaration of conformity	✓
ACMA declaration of conformity	✓

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

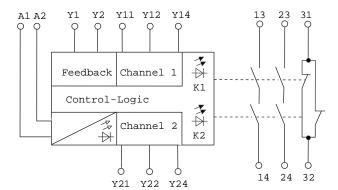
ECLASS 10.0	27371819
ECLASS 11.0	27371819
ECLASS 12.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
UNSPSC 16.0901	41113704

Dimensional drawing Safety relay



Dimensions in mm (inch)

Connection diagram



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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.

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For us, that is "Sensor Intelligence."

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