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DATA SHEET

UE42-2HD3D2

UE42-2HD
Safety relays

SICK Sensor Intelligence

Illustration may differ

SAFETY RELAYS

UE42-2HD3D2

ORDERING INFORMATION

Type	part no.
UE42-2HD3D2	6024881

Further device versions and accessories at www.sick.com/UE42-2HD

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)
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)

ELECTRONICS - 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))
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.

ELECTRONICS - 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

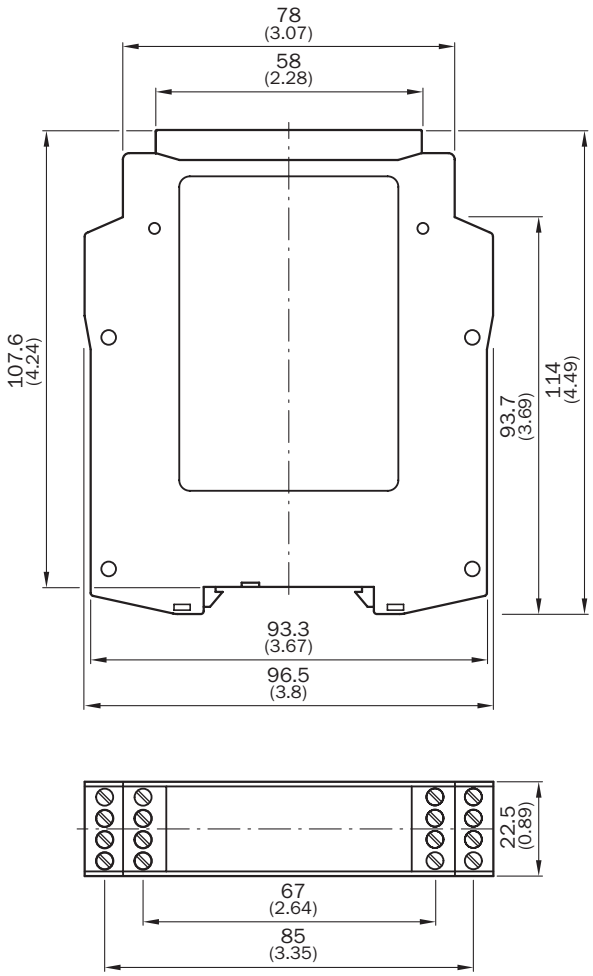
ELECTRONICS - OUTPUT CURRENT PATHS: 13/14, 23/24, 31/32

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)	1×10^{7} switching cycles
Electrical life (relay contacts)	2×10^{6} switching cycles

MECHANICS

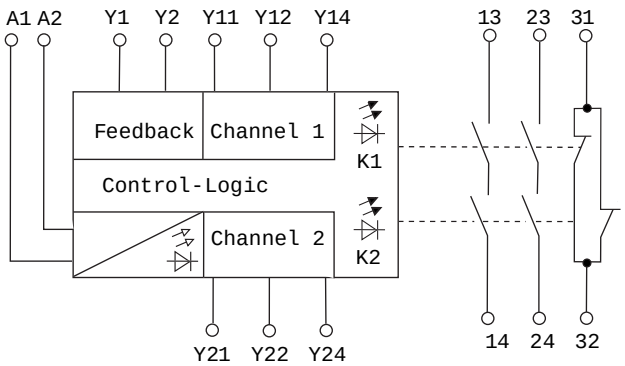
Dimensions (W x H x D)	22.5 mm x 114 mm x 96.5 mm
Contamination rating	3 (EN 50178)
Weight	0.2 kg

DIMENSIONAL DRAWING



Dimensions in mm (inch)

CONNECTION DIAGRAM



Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6024881

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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