



DATA SHEET

UE43-2MF2D2

UE43-2MF
Safety relays



Illustration may differ

SAFETY RELAYS

UE43-2MF2D2

ORDERING INFORMATION

Type	part no.
UE43-2MF2D2	6024893

Further device versions and accessories at www.sick.com/UE43-2MF

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)
Stop category	0 (EN 60204-1)

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 AC/DC (20.4 V AC/DC ... 26.4 V AC/DC)
Residual ripple	(≤ 2.4 V _{pp}) ¹⁾
Power consumption	(≤ 4.6 VA (AC)) (≤ 2.6 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 - CONTROL VOLTAGE: S33/S11, S21

Control voltage	22 V DC (≥ 17.4 V DC)
Control current	40 mA ... 100 mA
Short-circuit current	≤ 2 A, between S33 / S11 and S21
Short-circuit protection	PTC resistor

ELECTRONICS - INPUT CIRCUITS: S12, S31, S22, S34, S35

Input current	40 mA $\leq$ 100 mA 5 mA $\leq$ 50 mA
Reset time	Manual (≤ 40 ms) Automatic (≤ 500 ms)
Activation time of reset button	≥ 50 ms
Synchronous time monitoring	≤ 500 ms
Cable resistance	$\leq 35 \Omega$

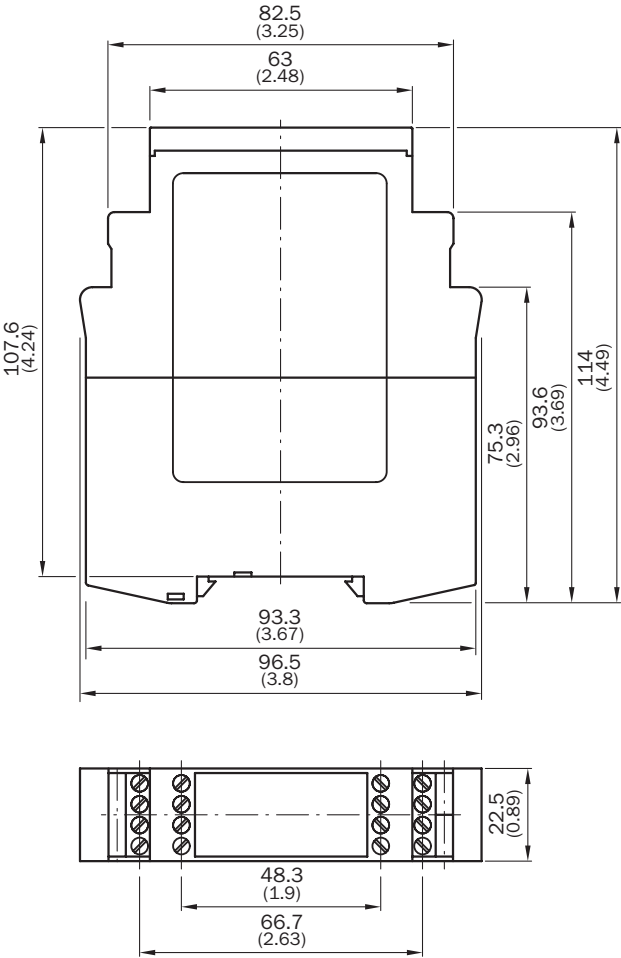
ELECTRONICS - OUTPUT CURRENT PATHS: 13/14, 23/24, 31/32

Response time	25 ms (≤ 25 ms) ¹⁾
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
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)	1×10^5 switching cycles

¹⁾ K1/K2.**MECHANICS**

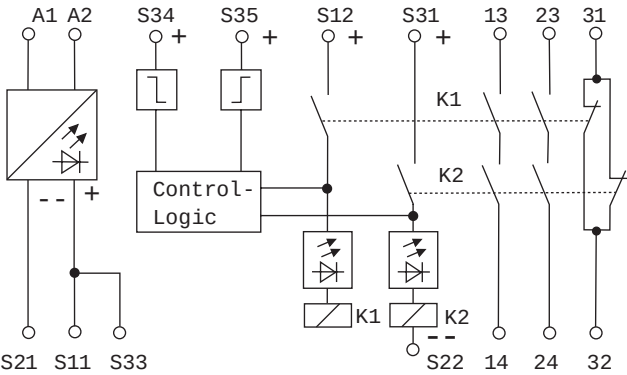
Dimensions (W x H x D)	22.5 mm x 114 mm x 96.5 mm
Contamination rating	3 (EN 50178)
Weight	0.2 kg

DIMENSIONAL DRAWING SAFETY RELAY



Dimensions in mm (inch)

CONNECTION DIAGRAM



Further information as well as suitable accessories, example applications and downloads such as CAD di-
mensional models, operating instructions and software can be found at www.sick.com/6024893



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SICK AT A GLANCE

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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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