



UE43-2MF2D2

UE43-2MF

SAFETY RELAYS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
UE43-2MF2D2	6024893

Other models and accessories → 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)
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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 ≤ 100 mA
		5 mA ≤ 50 mA
Reset time	Manual	(≤ 40 ms)
	Automatic	(≤ 500 ms)
Activation time of reset button		≥ 50 ms
Synchronous time monitoring		≤ 500 ms
Cable resistance		≤ 35 Ω

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 x 10 ⁷ switching cycles
Electrical life (relay contacts)		1 x 10 ⁵ switching cycles

¹⁾ K1/K2.

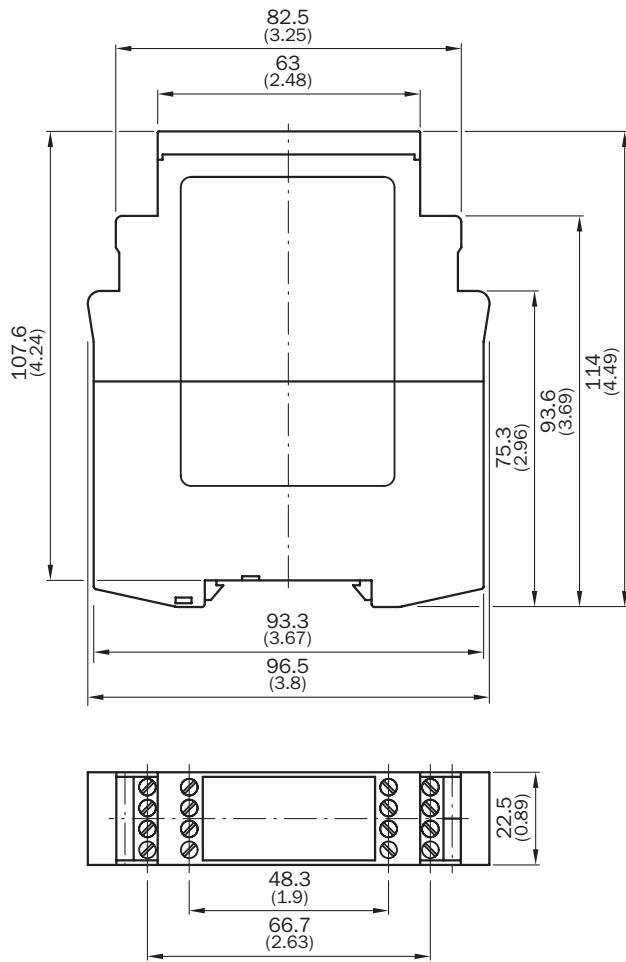
Mechanics

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

Classifications

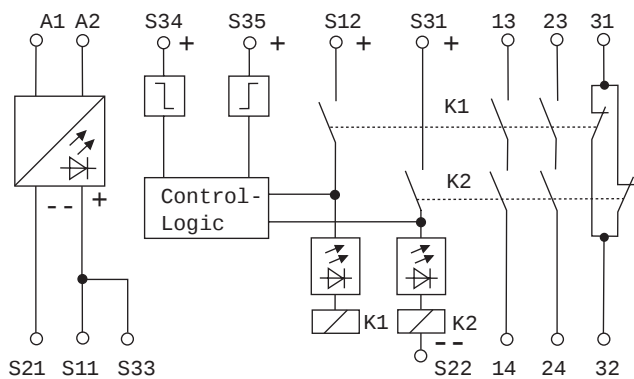
ECLASS 5.0	27371990
ECLASS 5.1.4	27371990
ECLASS 6.0	27371819
ECLASS 6.2	27371819
ECLASS 7.0	27371819
ECLASS 8.0	27371819
ECLASS 8.1	27371819
ECLASS 9.0	27371819
ECLASS 10.0	27371819
ECLASS 11.0	27371819
ECLASS 12.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
UNSPSC 16.0901	41113704

Dimensional drawing Safety relay



Dimensions in mm (inch)

Connection diagram



SICK AT A GLANCE

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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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