Product data sheet



UE43-3MF2A3

UE43-3MF

SAFETY RELAYS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
UE43-3MF2A3	6024901

Other models and accessories ➜ www.sick.com/UE43-3MF

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 x 10^6 switching cycles (AC-15, 230 V, I = 0.5 A) 3.5 x 10^5 switching cycles (DC-13, 24 V, I = 2 A) 1.2 x 10^6 switching cycles (DC-13, 24 V, I = 0.5 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)

Interfaces

Connection type	Fixed screw terminals
Number of enabling current paths (N/O)	3, 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 230 V AC (195.5 V AC ... 253 V AC)
Power consumption	(≤ 3.2 VA (AC))
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)

Control voltage: Y11, Y21

Control voltage	24 V DC
Short-circuit current	≤ 1 A, between Y11 and A2
Short-circuit protection	Short-circuit protected transformer
Galvanized decoupling	✓ (between A1, A2 and Y11, Y21, PE)

Input circuits: Y12, Y31, Y22

Input current	
	≤ 15 mA
Reset time	
Manual	150 ms
Automatic	800 ms
Synchronous time monitoring	≤ 500 ms ≤ 500 ms
Cable resistance	≤ 70 Ω

Output current paths: 13/14, 23/24, 33/34, 41/42

Response time	50 ms (≤ 50 ms) [1]
Number of enabling current paths (N/O)	3, 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	≤ 18 A
Usage category	AC-15/DC-13 (EN 60947-5-1)
Rated operating current (voltage)	6 A (230 V AC) 3600 switching cycles/h 4 A (24 V DC) 360 switching cycles/h 3 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

[1] K1/K2.

Mechanical data

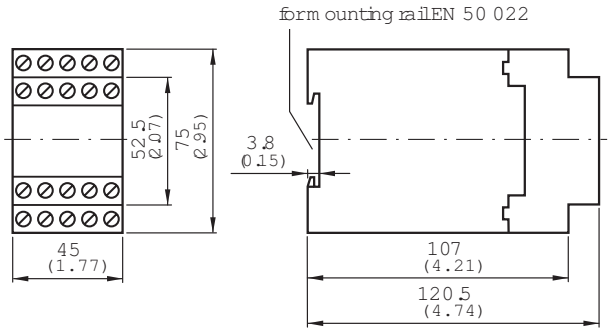
Dimensions (W x H x D)	45 mm x 120.5 mm x 75 mm
Contamination rating	3 (EN 50178)

Weight	0.36 kg

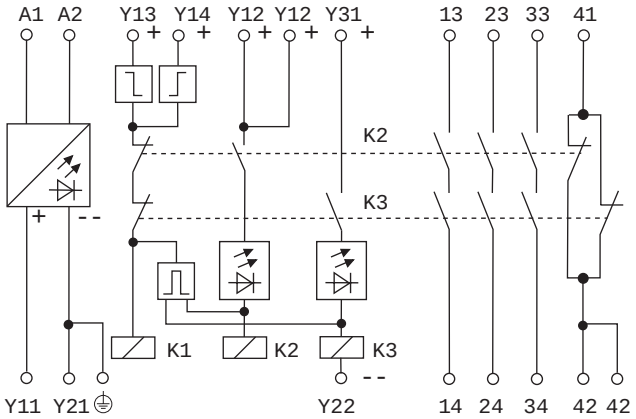
Classifications

ECl@ss 5.0	27371990
ECl@ss 5.1.4	27371990
ECl@ss 6.0	27371819
ECl@ss 6.2	27371819
ECl@ss 7.0	27371819
ECl@ss 8.0	27371819
ECl@ss 8.1	27371819
ECl@ss 9.0	27371819
ECl@ss 10.0	27371819
ECl@ss 11.0	27371819
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))



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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