



# UE43-3MF2A1

## UE43-3MF

SAFETY RELAYS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
UE43-3MF2A1	6024899

Other models and accessories → [www.sick.com/UE43-3MF](http://www.sick.com/UE43-3MF)

### Detailed technical data

#### Safety-related parameters

<b>Safety integrity level</b>	SIL3 (IEC 61508) SILCL3 (EN 62061)
<b>Category</b>	Category 4 (EN ISO 13849)
<b>Performance level</b>	PL e (EN ISO 13849)
<b>B<sub>10d</sub> parameter</b>	1 x 10 <sup>6</sup> switching cycles (AC-15, 230 V, I = 0.5 A) 3.5 x 10 <sup>5</sup> switching cycles (DC-13, 24 V, I = 2 A) 1.2 x 10 <sup>6</sup> switching cycles (DC-13, 24 V, I = 0.5 A)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	3.0 x 10 <sup>-8</sup> (EN ISO 13849)
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)
<b>Stop category</b>	0 (EN 60204-1)

#### Interfaces

<b>Connection type</b>	Fixed screw terminals
<b>Number of enabling current paths (N/O)</b>	3, relevant for safety

#### Electrical data

##### Operating data

<b>Voltage supply</b>	A1, A2
Output circuit > 25 V AC / 60 V DC	PELV
Output circuit ≤ 25 V AC / 60 V DC	PELV or SELV
<b>Supply voltage V<sub>s</sub></b>	A1, A2
	115 V AC (97.8 V AC ... 126.5 V AC)
<b>Power consumption</b>	(≤ 3.2 VA (AC))
<b>Overvoltage category</b>	II
<b>Rated insulation voltage U<sub>i</sub></b>	300 V AC

<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	4 kV
<b>Test voltage</b>	2 kV (50 Hz) (EN 60439-1)

Control voltage: Y11, Y21

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

Input circuits: Y12, Y31, Y22

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

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

<b>Response time</b>	50 ms (≤ 50 ms) <sup>1)</sup>
<b>Number of enabling current paths (N/O)</b>	3, relevant for safety
<b>Number of signaling current paths (normally closed)</b>	1, not safety-relevant
<b>Contact type</b>	Positively driven
<b>Contact material</b>	Silver alloy, gold flashed
<b>Switching voltage</b>	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
<b>Current-carrying capacity per OSSD</b>	Enabling current path 10 mA ... 6 A Signaling current path 10 mA ... 6 A Total current ≤ 18 A
<b>Usage category</b>	AC-15/DC-13 (EN 60947-5-1)
<b>Rated operating current (voltage)</b>	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
<b>Switching frequency</b>	≤ 3600/h
<b>Mechanical life (relay contacts)</b>	1 x 10 <sup>7</sup> switching cycles
<b>Electrical life (relay contacts)</b>	2 x 10 <sup>6</sup> switching cycles

<sup>1)</sup> K1/K2.

Mechanical data

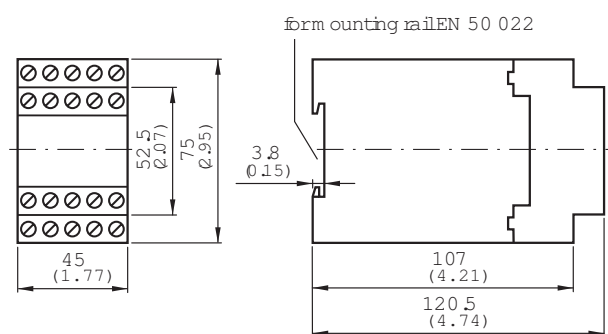
<b>Dimensions (W x H x D)</b>	45 mm x 120.5 mm x 75 mm
<b>Contamination rating</b>	3 (EN 50178)

<b>Weight</b>	0.36 kg
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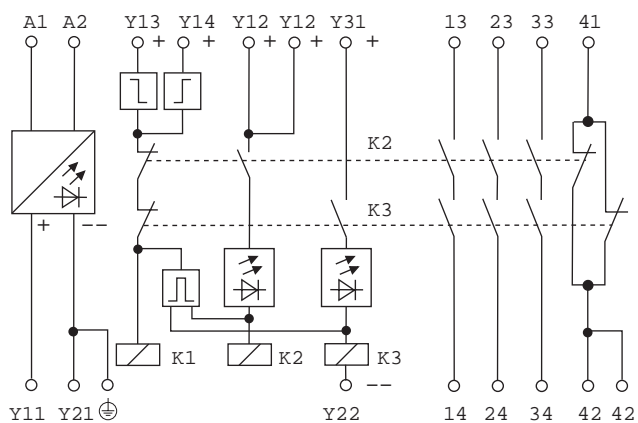
### Classifications

<b>ECl@ss 5.0</b>	27371990
<b>ECl@ss 5.1.4</b>	27371990
<b>ECl@ss 6.0</b>	27371819
<b>ECl@ss 6.2</b>	27371819
<b>ECl@ss 7.0</b>	27371819
<b>ECl@ss 8.0</b>	27371819
<b>ECl@ss 8.1</b>	27371819
<b>ECl@ss 9.0</b>	27371819
<b>ECl@ss 10.0</b>	27371819
<b>ECl@ss 11.0</b>	27371819
<b>ETIM 5.0</b>	EC001449
<b>ETIM 6.0</b>	EC001449
<b>ETIM 7.0</b>	EC001449
<b>UNSPSC 16.0901</b>	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.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)