Product data sheet




# UE23-2MF2A4

## UE23-2MF

**SAFETY RELAYS**

SICK
Sensor Intelligence.




Illustration may differ

## Ordering information

| Type | Part no. |
|---|---|
| UE23-2MF2A4 | 6026147 |

Other models and accessories → www.sick.com/UE23-2MF

## Detailed technical data

### Safety-related parameters

| | |
|---|---|
| **Safety integrity level** | SILCL2 (EN 62061) |
| **Category** | Category 3 (EN ISO 13849) |
| **Performance level** | PL d (EN ISO 13849) |
| **$B_{10d}$ parameter** | $5.45 \times 10^4$ switching cycles (AC-15, 230 V, I = 3 A)<br>$1.26 \times 10^6$ switching cycles (AC-15, 230 V, I = 1.5 A)<br>$5.9 \times 10^6$ switching cycles (AC-15, 230 V, I = 0.75 A)<br>$4.35 \times 10^5$ switching cycles (DC-13, 24 V, I = 2.5 A)<br>$1 \times 10^7$ switching cycles (DC-13, 24 V, I = 0.63 A) |
| **$PFH_D$ (mean probability of a dangerous failure per hour)** | $3.0 \times 10^{-6}$ (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)** | 2, relevant for safety |

### Electrical data

#### Operating data

| | |
|---|---|
| **Protection class** | II, safe isolation (EN 50178) |
| **Supply voltage $V_S$** | A1, A2<br>115 V AC (98 V AC ... 132 V AC) |
| **Power consumption** | (≤ 3 VA) |
| **Overvoltage category** | III |
| **Rated insulation voltage $U_i$** | 300 V AC |
| **Rated impulse withstand voltage $U_{imp}$** | 6 kV |

| | |
|---|---|
| **Test voltage** | 3.5 kV (50 Hz) (EN 60439-1) |

Control voltage: Y1-Y2-Y3

| | |
|---|---|
| **Control voltage** | (≤ 40 V DC) |
| **Control current** | ≤ 20 mA |
| **Short-circuit current** | ≤ 250 mA |
| **Short-circuit protection** | PTC resistor |
| **Reset time** | |
| Manual | ≤ 70 ms |
| Automatic | ≤ 600 ms |
| **Galvanized decoupling** | ✓ |

Output current paths: 13/14, 23/24, 31/32

| | |
|---|---|
| **Response time** | (≤ 80 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 ... 230 V AC<br>10 V ... 300 V DC |
| Signaling current path | 10 V AC ... 230 V AC<br>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 | ≤ 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<br>3 A (230 V AC) 3600 switching cycles/h<br>4 A (24 V DC) 360 switching cycles/h<br>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)** | 2 x $10^6$ switching cycles |

[1] K1/K2.

## Mechanical data

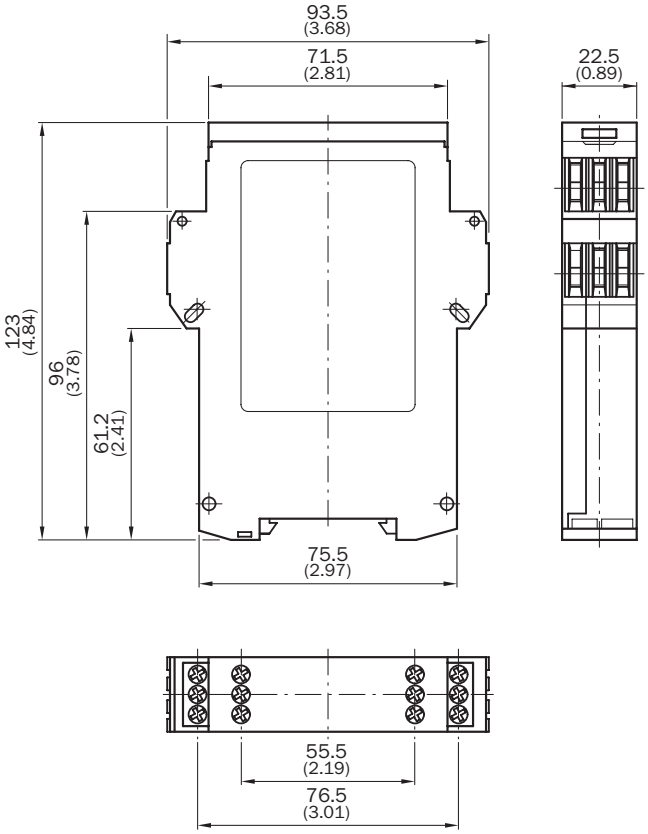
| | |
|---|---|
| **Dimensions (W x H x D)** | 22.5 mm x 123 mm x 93.5 mm |
| **Contamination rating** | 3 (EN 50178) |
| **Weight** | 0.27 kg |

## Classifications

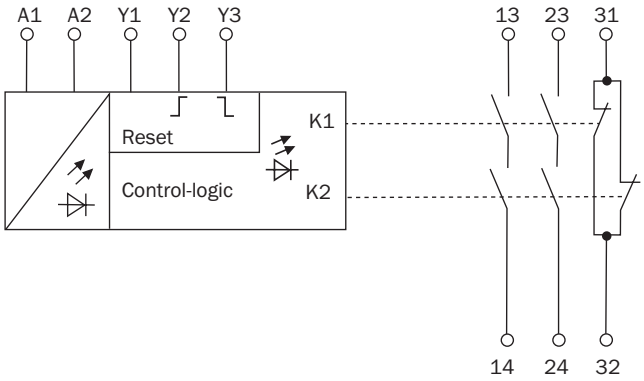
| | |
|---|---|
| **ECl@ss 5.0** | 27371990 |
| **ECl@ss 5.1.4** | 27371990 |
| **ECl@ss 6.0** | 27371819 |

| | |
|---|---|
| **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.”**

# WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com