



# MOC3ZA-KAZ33D3

## Standstill Monitor

SAFETY RELAYS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
MOC3ZA-KAZ33D3	6044981

Other models and accessories → [www.sick.com/Standstill\\_Monitor](http://www.sick.com/Standstill_Monitor)

### 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>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	41 x 10 <sup>-9</sup> (EN ISO 13849)
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)
<b>Stop category</b>	1 (EN 60204-1)

#### Functions

<b>Drive safety functions</b>	Standstill
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#### Interfaces

<b>Connection type</b>	Screw-type terminals, plug-in screw-type terminals
<b>Conductor cross-section</b>	Single wire or fine wire (1x): 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> Fine wire with ferrule according to EN 46288 (1x): 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
<b>Encoder interface</b>	Motor voltage measuring

#### Electrical data

##### Operating data

<b>Supply voltage (A1/A2)</b>	24 V (21.6 V ... 28.8 V)
Voltage type	DC
Residual ripple	10 %
Maximum power consumption	≤ 4 W
<b>Supply voltage semiconductor application diagnostic outputs (A3/A4)</b>	24 V DC (11 V DC ... 30 V DC)
Residual ripple	10 %

##### Measurement inputs (L1/L2/L3)

<b>Measured/motor voltage</b>	≤ 690 V AC
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For UL 508 applications only	≤ 600 V AC
<b>Voltage threshold <math>U_{an}</math></b>	20 mV ... 400 mV, adjustable
<b>Standstill time <math>t_s</math></b>	0.2 s ... 6 s, adjustable
<b>Hysteresis (for detection of running motor)</b>	100 %
<b>Response time</b>	≤ 100 ms

Safety outputs: Normally open contact (13/14, 23/24, 33/34); positively guided N/C contacts: Normally closed contact (41/42)

<b>Contact configuration (safety contacts)</b>	3 contacts NO, 1 contact NC
<b>Contact type</b>	Relay, positively guided
<b>Nominal switching voltage</b>	250 V AC
<b>Switching capacity in accordance with AC 15</b>	N/O: 3 A/230 V AC (EN 60947-5-1) N/C: 2 A/230 V AC (EN 60947-5-1)
<b>Switching capacity in accordance with DC 13</b>	2 A/24 V DC (EN 60947-5-1)
<b>Maximum switching frequency</b>	≤ 1,200 /h
<b>Contact service life at 230 V / 5 A (AC) <math>\cos \phi = 0.5</math></b>	≥ 2 x 10 <sup>5</sup> switching operations
<b>Mechanical life</b>	≥ 50 x 10 <sup>6</sup> switching operations

Application diagnostic outputs

<b>Semiconductor application diagnostic outputs (ON, ERR)</b>	Electrically isolated supply via A3/A4 $I_{max} = 100$ mA (short-circuit protected) ON for Release, ERR for Error
<b>Signal contacts 53/54 (normally open contact)</b>	3 A/250 V AC G. P.

Mechanical data

<b>Dimensions (W x H x D)</b>	45 mm x 112 mm x 121 mm
<b>Weight</b>	400 g
<b>Mounting</b>	35 mm mounting rail according to EN 60715

Ambient data

<b>Enclosure rating</b>	Terminals	IP20 (EN 60529)
	Housing	IP40 (EN 60529)
<b>Climate conditions according to</b>		25/060/04 (EN 60068-1)
<b>Vibration resistance</b>		10 Hz ... 55 Hz (EN 60068-2-6)
<b>Shock resistance</b>	Single shock	30 g, 11 ms (EN 60068-2-27)

Classifications

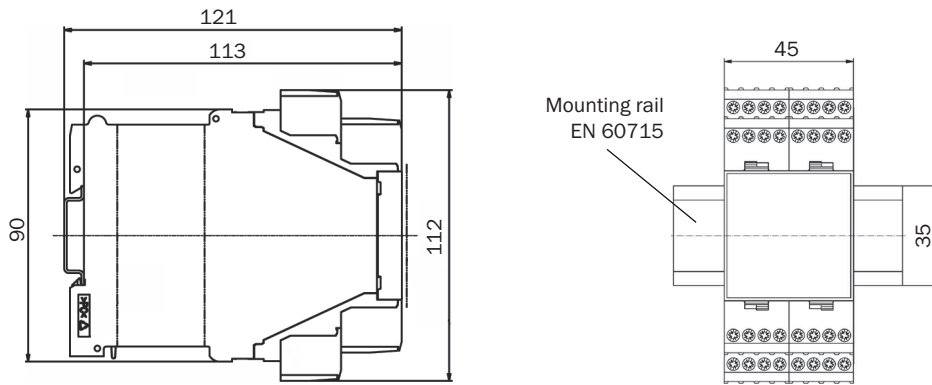
<b>ECl@ss 5.0</b>	27371990
<b>ECl@ss 5.1.4</b>	27371990
<b>ECl@ss 6.0</b>	27371819
<b>ECl@ss 6.2</b>	27371819
<b>ECl@ss 7.0</b>	27371819
<b>ECl@ss 8.0</b>	27371819
<b>ECl@ss 8.1</b>	27371819

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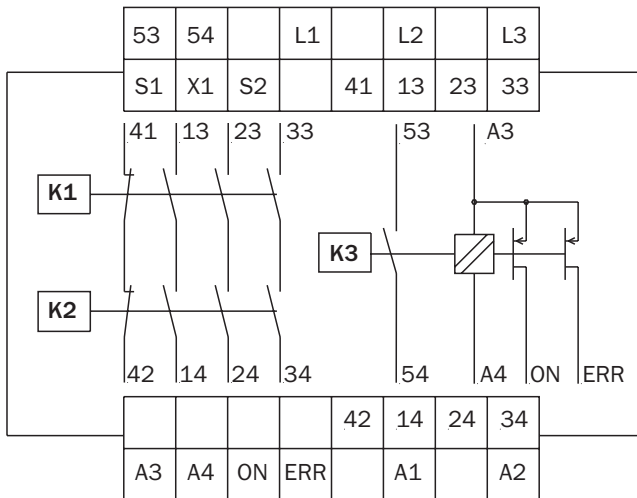
## SAFETY RELAYS

<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)