

MZZ1-03V-N-AW0

CYLINDER SENSORS

**SICK**  
Sensor Intelligence.

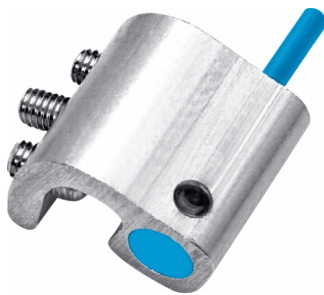


Illustration may differ

### Ordering information

Type	part no.
MZZ1-03V-N-AWO	1102549

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

### Detailed technical data

#### Features

<b>Cylinder type</b>	Tie rod cylinder
<b>Switching output</b>	NAMUR
<b>Switching output detail</b>	NAMUR
<b>Switching frequency</b>	5,000 Hz
<b>Electrical wiring</b>	DC 2-wire
<b>Enclosure rating</b>	IP67 <sup>1)</sup>
<b>Sensing face</b>	Front

<sup>1)</sup> According to EN 60529.

#### Mechanics/electronics

<b>Ex area category</b>	2G, 1D
<b>Time delay before availability</b>	≤ 2 ms
<b>Dimensions (W x H x D)</b>	30 mm
<b>Response sensitivity, typ.</b>	3 mT
<b>Reproducibility</b>	≤ 0.1 mm <sup>1)</sup>
<b>Reverse polarity protection</b>	Yes
<b>Short-circuit protection</b>	Yes
<b>Status indicator LED</b>	Yes
<b>Ambient operating temperature</b>	-25 °C ... +70 °C
<b>Shock and vibration resistance</b>	30 g, 11 ms / 10 ... 55 Hz, 1 mm
<b>EMC</b>	According to EN 60947-5-6
<b>Connection type</b>	Cable, 2-wire, 2 m
<b>Connection type Detail</b>	
Conductor cross section	0.34 mm <sup>2</sup>
<b>Material</b>	
Housing	Metal, Aluminum
Sensing face	Plastic, plastic

<sup>1)</sup> Supply voltage  $U_B$  and constant ambient temperature  $T_a$ .

<sup>2)</sup> For connection to a separately certified intrinsically safe circuit only.

	Cable	PVC
<b>EC-Type examination certificate</b>		TÜV 19 ATEX 241335
<b>ATEX marking</b>		EX II 2G Ex ia IIC T6 GbEX II 1D Ex ia IIIC T85 °C DaTa: -25 °C ... +70 °C
<b>Input voltage <math>U_i</math> max.</b>		16 V <sup>2)</sup>
<b>Input power <math>P_i</math> max.</b>		100 mW <sup>2)</sup>
<b>Input current <math>I_i</math> max.</b>		30 mA <sup>2)</sup>
<b>Internal capacitance <math>C_i</math> max.</b>		130 nF <sup>2)</sup>
<b>Internal inductance <math>L_i</math> max.</b>		10 $\mu$ H <sup>2)</sup>
<b>Nominal voltage</b>		8.2 V DC

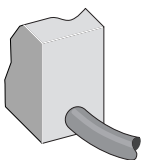
<sup>1)</sup> Supply voltage  $U_B$  and constant ambient temperature  $T_a$ .

<sup>2)</sup> For connection to a separately certified intrinsically safe circuit only.

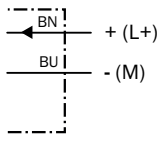
### Classifications

<b>ECLASS 5.0</b>	27270104
<b>ECLASS 5.1.4</b>	27270104
<b>ECLASS 6.0</b>	27270104
<b>ECLASS 6.2</b>	27270104
<b>ECLASS 7.0</b>	27270104
<b>ECLASS 8.0</b>	27270104
<b>ECLASS 8.1</b>	27270104
<b>ECLASS 9.0</b>	27270104
<b>ECLASS 10.0</b>	27270104
<b>ECLASS 11.0</b>	27270104
<b>ECLASS 12.0</b>	27274301
<b>ETIM 5.0</b>	EC002544
<b>ETIM 6.0</b>	EC002544
<b>ETIM 7.0</b>	EC002544
<b>ETIM 8.0</b>	EC002544
<b>UNSPSC 16.0901</b>	39122230

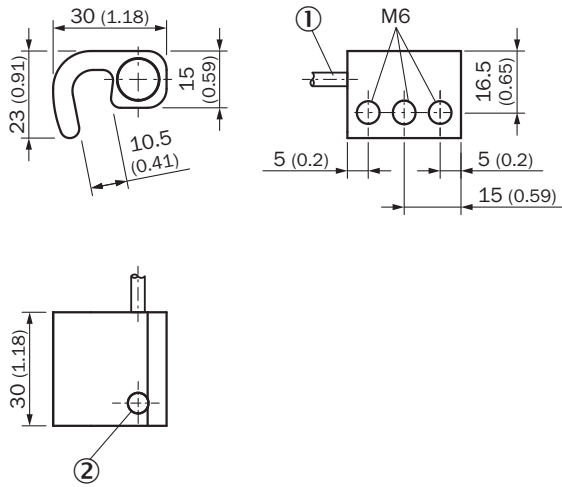
### Connection type



### Connection diagram Cd-012



### Dimensional drawing



Dimensions in mm (inch)

- ① Connection
- ② Display LED

## 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)