



i16-SA113

i16S

ELECTRO-MECHANICAL SAFETY SWITCHES

SICK
Sensor Intelligence.

Ordering information



The actuator has to be ordered separately. See "Accessories" for further

Details.

Other models and accessories → www.sick.com/i16S

actuator not supplied with delivery



Detailed technical data

Features

Number of positive action N/C contacts	1
Number of N/O contacts	1
Retaining force	≤ 30 N
Actuation frequency	≤ 7,200 /h
Actuation directions	3
Approach speed	≤ 10 m/min

Safety-related parameters

B_{10d} parameter	2 x 10 ⁶ switching cycles (with small load)
Type	Type 2 (EN ISO 14119)
Actuator coding level	Low coding level (EN ISO 14119)
Safe state in the event of a fault	The switch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit.

Functions

Safe series connection	None, only individual wiring (with diagnostics)
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Interfaces

Connection type	Cable gland, 3 x M20
Conductor cross-section	≤ 1.5 mm ²

Electrical data

Switching principle	Slow action switching element
Usage category	AC-15/DC-13 (IEC 60947-5-1)
Rated operating current (voltage)	3 A (240 V AC) 2 A (24 V DC)
Rated insulation voltage U_i	240 V
Rated impulse withstand voltage U_{imp}	2,500 V

Short-circuit protection	T10/10A
Switching voltage	≥ 5 V DC
Switching current (switching voltage)	≥ 5 mA (5 V DC)

Mechanical data

Weight	0.14 kg
Housing material	Glass-fiber reinforced polybutylene terephthalate (PBT)
Mechanical life	1×10^6 switching cycles

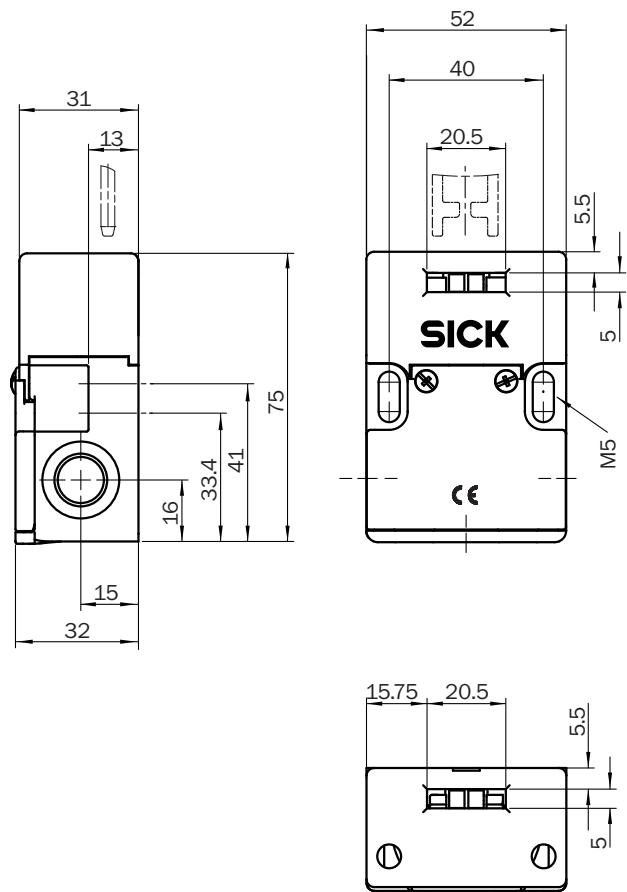
Ambient data

Enclosure rating	IP67 (IEC 60529)
Ambient operating temperature	-20 °C ... +80 °C
Storage temperature	-20 °C ... +80 °C

Classifications

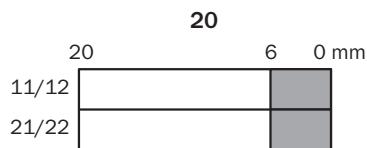
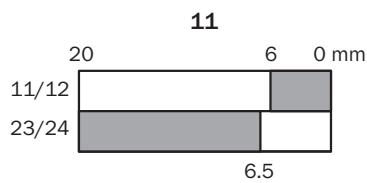
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ECI@ss 9.0	27272602
ECI@ss 10.0	27272602
ECI@ss 11.0	27272602
ETIM 5.0	EC002592
ETIM 6.0	EC002592
ETIM 7.0	EC002592
ETIM 8.0	EC002592
UNSPSC 16.0901	39122205

Dimensional drawing (Dimensions in mm (inch))



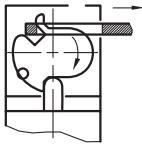
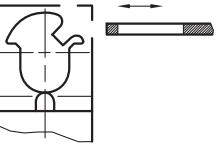
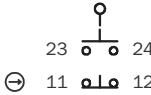
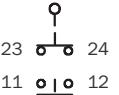
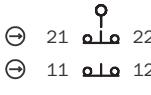
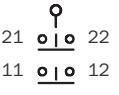
Actuator travel diagram

Contact action over the entire actuator withdrawl distance (full insertion = 0 mm)



- Contacts open
- Contacts closed

Switching elements

	Actuator inserted	Actuator removed
		
Switching element 11	 \ominus 23   24 \oplus 11   12	 \ominus 23   24 \oplus 11   12
Switching element 20	 \ominus 21   22 \oplus 11   12	 \ominus 21   22 \oplus 11   12

Switching element 11:

1 positive action N/C contact + 1 N/O contact

Switching element 20:

2 positive action N/C contacts

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