



SICK Sensor Intelligence.

ELECTRO-MECHANICAL SAFETY SWITCHES



Ordering information

Туре	Part no.
i12-SA113	6025057

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

Other models and accessories -> www.sick.com/i12S

actuator not supplied with delivery



Detailed technical data

Features

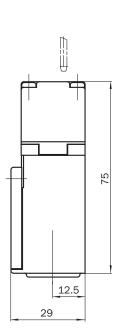
reatures	
Positive action N/C contacts	1
N/O contacts	1
Retaining force	≤ 6 N
Actuation frequency	≤ 7,200 /h
Actuation directions	5
Approach speed	≤ 10 m/min
Safety-related parameters	
B _{10d} parameter	2×10^6 switching cycles (with small load)
Туре	Type 2 (EN ISO 14119)
Actuator coding level	Low coding 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 connections	None, only individual wiring (with diagnostics)
Interfaces	
Connection type	Cable gland, 1 x M16
Conductor cross section	≤ 1.5 mm²
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 $\mathbf{U}_{\mathrm{imp}}$	2,500 V AC

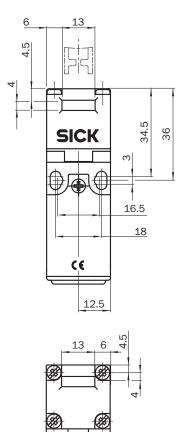
i12-SA113 | i12S

ELECTRO-MECHANICAL SAFETY SWITCHES

Switching voltage> 5 V DCSwitching current (switching voltage)> 5 m (5 V DC)Mechanical data0.08 kgHousing material0.08 kgMechanical life0.38 s-fiber reinforced thermoplasticMechanical life1 x 10 ⁶ switching cyclesAmbient dataP67 (IEC 60529)Ambient operating temperature-20 °C +80 °CAmbient operating temperature-20 °C +80 °C		
Switching current (switching voltage)5 m (6 V DC)Mechanical data0.08 kgMuosing material0.08 kgMuosing materialGlass-fiber reinforced thermoplasticMechanical life1 x 10 ⁶ switching cyclesAmbient dataPF7 (ICC 60529)Enclosure ratingPF7 (ICC 60529)Ambient operating temperature-20 °C +80 °CStorage temperature-20 °C +80 °CClassificationsY272602EcLASS 5.027272602EcLASS 5.1.427272602EcLASS 6.027272602EcLASS 6.027272602EcLASS 7.027272602EcLASS 8.127272602EcLASS 8.127272602EcLASS 8.127272602EcLASS 1.027272602EcLASS 1.0 <th>Short-circuit protection</th> <th>T10/10A</th>	Short-circuit protection	T10/10A
Mechanical data Weight 0.08 kg Housing material Glass-fiber reinforced thermoplastic Mechanical life 1 x 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 27272602 EcLASS 5.0 27272602 EcLASS 6.0 27272602 EcLASS 6.0 27272602 EcLASS 6.0 27272602 EcLASS 5.1 27272602 EcLASS 5.0 27272602 EcLASS 6.0 27272602 EcLASS 7.0 27272602 EcLASS 8.1 27272602 EcLASS 8.1 27272602 EcLASS 8.0 27272602 EcLASS 8.1 27272602 EcLASS 9.0 27272602 EcLASS 9.0 27272602 EcLASS 1.0 27272602 EcLASS 1.0 27272602 EcLASS 1.0 27272602 EcLASS 1.0 27272	Switching voltage	≥ 5 V DC
Weight0.08 kgHousing materialGlass-fiber reinforced thermoplasticMechanical life1 x 10 ⁸ switching cyclesAmbient dataIP67 (IEC 60529)Enclosure ratingP67 (IEC 60529)Ambient operating temperature-20 °C +80 °CStorage temperature-20 °C +80 °CClassifications2722602EcLASS 5.02727202EcLASS 5.1.4272202EcLASS 6.02727202EcLASS 6.22727202EcLASS 6.22727202EcLASS 7.02727202EcLASS 7.02727202EcLASS 9.12727202EcLASS 9.02727202EcLASS 9.12727202EcLASS	Switching current (switching voltage)	5 mA (5 V DC)
Housing materialGlass-fiber reinforced thermoplasticMechanical life1x10 ⁶ switching cyclesAmbient dataEnclosure ratingP67 (IEC 60529)Ambient operating temperature20 °C +80 °CStorage temperature-20 °C +80 °CStorage temperature-20 °C +80 °CStorage temperature20 °C +80 °CClassificationsEcLASS 5.07272602EcLASS 5.1.427272602EcLASS 6.027272602EcLASS 6.227272602EcLASS 7.027272602EcLASS 8.127272602EcLASS 8.127272602EcLASS 9.027272602EcLASS 1.027272602EcLASS 1.027272602EcLASS 1.027272602EcLASS 1.027272602EcLASS 1.027272602Endass 1.027272602EcLASS 1.0 <td< th=""><th>Mechanical data</th><th></th></td<>	Mechanical data	
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Dimensional drawing (Dimensions in mm (inch))

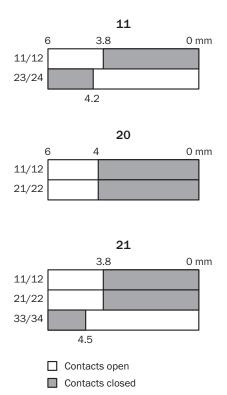




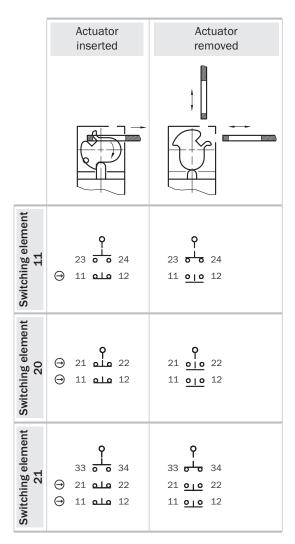
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Actuator travel diagram

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



Switching elements



Switching element 11:

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

Switching element 20: 2 positive action N/C contacts

Switching element 21:

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

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:

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Online data sheet

