

i12-SA113

i12S

ELECTRO-MECHANICAL SAFETY SWITCHES

SICK
Sensor Intelligence.



Ordering information

| Type | 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

| | |
|---|------------|
| Number of positive action N/C contacts | 1 |
| Number of 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 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. |

Interfaces

| | |
|-------------------------|-----------------------|
| Connection type | Cable gland, 1 x M16 |
| 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 AC |
| Short-circuit protection | T10/10A |
| Switching voltage | ≥ 5 V DC |
| Switching current (switching voltage) | ≥ 5 mA (5 V DC) |

Mechanical data

| | |
|-------------------------|--------------------------------------|
| Weight | 0.08 kg |
| Housing material | Glass-fiber reinforced thermoplastic |
| Mechanical life | 1 x 10 ⁶ switching cycles |

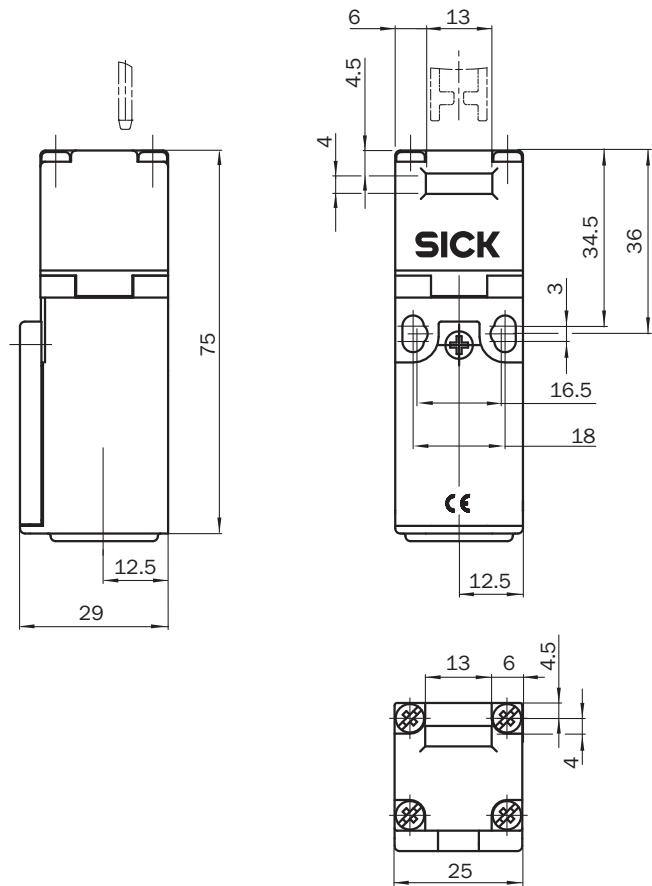
Ambient data

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

Classifications

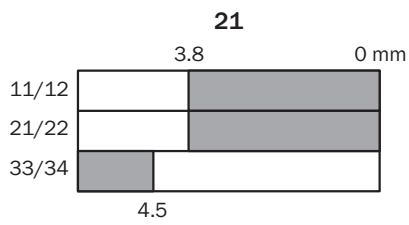
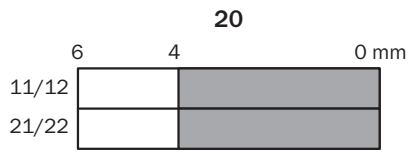
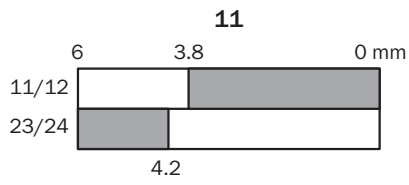
| | |
|-----------------------|----------|
| ECl@ss 5.0 | 27272602 |
| ECl@ss 5.1.4 | 27272602 |
| ECl@ss 6.0 | 27272602 |
| ECl@ss 6.2 | 27272602 |
| ECl@ss 7.0 | 27272602 |
| ECl@ss 8.0 | 27272602 |
| ECl@ss 8.1 | 27272602 |
| ECl@ss 9.0 | 27272602 |
| ETIM 5.0 | EC002592 |
| ETIM 6.0 | EC002592 |
| UNSPSC 16.0901 | 39122205 |

Dimensional drawing (Dimensions in mm (inch))



Actuator travel diagram

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



- Contacts open
- Contacts closed

Switching elements

| | Actuator inserted | Actuator removed |
|----------------------|-------------------|------------------|
| Switching element 11 | | |
| Switching element 20 | | |
| Switching element 21 | | |

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:

Contacts and other locations –www.sick.com