



IQB2S12-04B4DT0

IQB2S

NON-CONTACT SAFETY SWITCHES

SICK
Sensor Intelligence.

| | | |
|-------------------------|-----------------------|---------|
| IO-Link Safety | WCDT | ≤ 1 ms |
| | OFDT | ≤ 20 ms |
| Display elements | | LEDs |
| | Diagnostics indicator | ✓ |
| | Status display | ✓ |

Electronics

| | |
|---|---|
| Protection class | III (IEC 61140) |
| Rated insulation voltage U_i | 28.8 V |
| Rated impulse withstand voltage U_{imp} | 1,500 V |
| Supply voltage V_s | 24 V DC (19.2 V DC ... 28.8 V DC) |
| Power consumption | ≤ 20 mA |
| Type of output | Self-monitoring semiconductor outputs (OSSDs) |
| Response time | ≤ 1 ms |
| Release time | ≤ 2 ms |
| Risk time | ≤ 20 ms |
| Switch-on time | 1 s |

Mechanics

| | | |
|--------------------------|-----------------------|---------|
| Design | Rectangular | |
| Dimensions | 12 mm x 40 mm x 26 mm | |
| Material | Housing | VISTAL® |
| | Sensor surface | VISTAL® |
| Installation type | Flush | |

Ambient data

| | |
|--------------------------------------|---|
| Enclosure rating | IP67 (IEC 60529) |
| Ambient operating temperature | -25 °C ... +70 °C |
| Storage temperature | -25 °C ... +70 °C |
| Relative humidity | 50 %, at 70 °C (IEC 60947-5-2) |
| Vibration resistance | 10 Hz ... 55 Hz, 1 mm (IEC 60947-5-2) |
| EMC | IEC 60947-5-2 IEC 61000-6-7 IEC 60947-5-3 |

Certificates

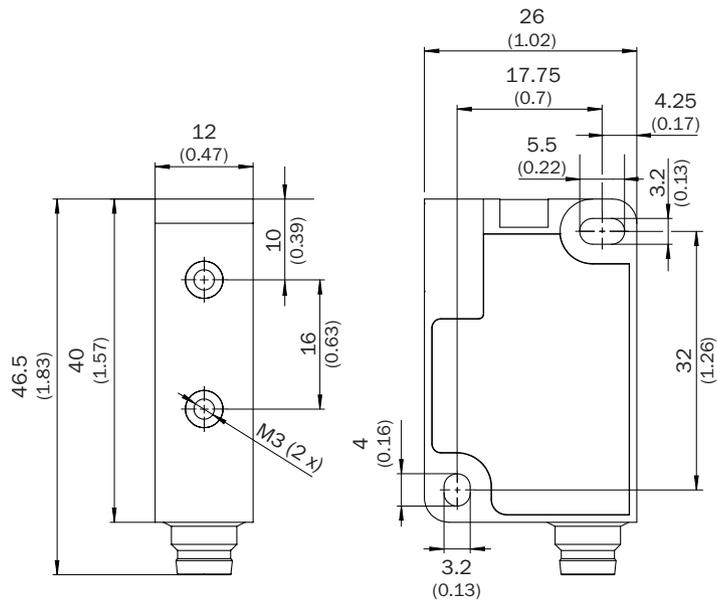
| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China-RoHS | ✓ |
| UK-Type-Examination approval | ✓ |
| cULus certificate | ✓ |

| | |
|-------------------------------------|---|
| EC-Type-Examination approval | ✓ |
| Third party certificate | ✓ |

Classifications

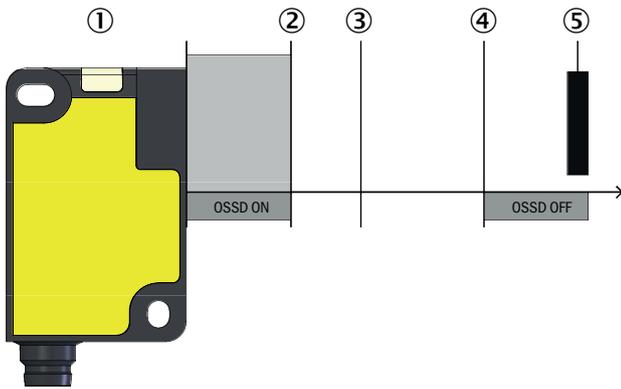
| | |
|-----------------------|----------|
| ECLASS 5.0 | 27272401 |
| ECLASS 5.1.4 | 27272401 |
| ECLASS 6.0 | 27272401 |
| ECLASS 6.2 | 27272401 |
| ECLASS 7.0 | 27272401 |
| ECLASS 8.0 | 27272401 |
| ECLASS 8.1 | 27272401 |
| ECLASS 9.0 | 27272401 |
| ECLASS 10.0 | 27272401 |
| ECLASS 11.0 | 27272401 |
| ECLASS 12.0 | 27274101 |
| ETIM 5.0 | EC001818 |
| ETIM 6.0 | EC001818 |
| ETIM 7.0 | EC001818 |
| ETIM 8.0 | EC001818 |
| UNSPSC 16.0901 | 39122205 |

Dimensional drawing



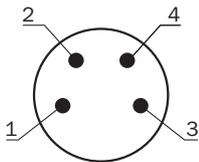
Dimensions in mm (inch)

Response range



- ① safety switch
- ② assured switch on distance S_{ao}
- ③ Sensing range S_n
- ④ assured switch off distance S_{ar}
- ⑤ actuator

Pinouts



| Pin | Designation | Description |
|-----|-------------|------------------------|
| 1 | +24 V DC | 24 V DC voltage supply |
| 2 | OSSD 1 | OSSD 1 output |
| 3 | 0 V DC | 0 V DC voltage supply |
| 4 | OSSD 2 | OSSD 2 output |

For details see operating instructions

Recommended accessories

Other models and accessories → www.sick.com/IQB2S

| | Brief description | Type | part no. |
|--|--|--------------------|----------|
| connectors and cables | | | |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 4-pin, straight, A-coded • Connection type head B: Male connector, M12, 4-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 5 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals, Uncontaminated zones | YF8U14-050VA3M2A14 | 2096609 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals, Uncontaminated zones | YF8U14-050VA3XLEAX | 2095889 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 4-pin, straight, A-coded • Connection type head B: Male connector, M12, 4-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 10 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals, Uncontaminated zones | YF8U14-100VA3M2A14 | 2096610 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals, Uncontaminated zones | YF8U14-100VA3XLEAX | 2095890 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 20 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals, Uncontaminated zones | YF8U14-200VA3XLEAX | 2095891 |

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