



SYS/SGD-W4150010002BX3

Safeguard Detector

SAFETY SYSTEMS FOR AUTOMATING MATERIAL FLOWS

SICK
Sensor Intelligence.



Ordering information

| Type | part no. |
|------------------------|----------|
| SYS/SGD-W4150010002BX3 | 1129656 |

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



Detailed technical data

Features

| | |
|---|---|
| Safety task | Natural protection due to the material |
| Product scope | System |
| Safeguard Detector variant | Box variant |
| Detection zone | 30 mm ... 150 mm ¹⁾ |
| Safety-related parameters | |
| Category | Category 3 (EN ISO 13849-1) |
| Performance level | PL d (EN ISO 13849-1) |
| Performance class SRS/SRSS | D (IEC TS 62998-1) |
| PFH _D (mean probability of a dangerous failure per hour) | 1.0 * 10 ⁻⁷ |
| DC _{avg} (diagnostic coverage) | 80 % (EN ISO 13849-1) |
| MTTF _D (mean time to dangerous failure) | 250 years (EN ISO 13849-1) |
| Items supplied | 1 × UE410-SD safety controller 2 × WTB4F MultiPulse sensor 150 mm Software, operating instructions, connection diagram and SISTEMA file |

¹⁾ If no movable physical guard is identified in the detection zone, the safety controller prompts the machine to enter the safe state.

UE410-SD safety controller

| | |
|---|--|
| Note | The UE410-SD safety evaluation module can be operated with one or two MultiPulse sensor pairs. The actuator can be connected directly to the UE410-SD safety evaluation module. The safety chain can also be expanded with additional logic elements (e.g., a higher-level safety controller). |
| Configuration method | Hard wired |
| Number of connectable sensor pairs | 1 or 2 |
| Connection type | Screw-type terminals |
| Pulse rate of the sensors | 10 Hz |
| Supply voltage V_S | 24 V DC (19.2 V ... 30 V) |
| Protection class | III (EN 50178) |
| Enclosure rating | IP20 (EN 60529) |
| Ambient operating temperature | -25 °C ... 55 °C |

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|--|----------|
| Response time of the overall safety system (sensors and safety evaluation module) | ≤ 160 ms |
|--|----------|

MultiPulse photoelectric proximity sensor

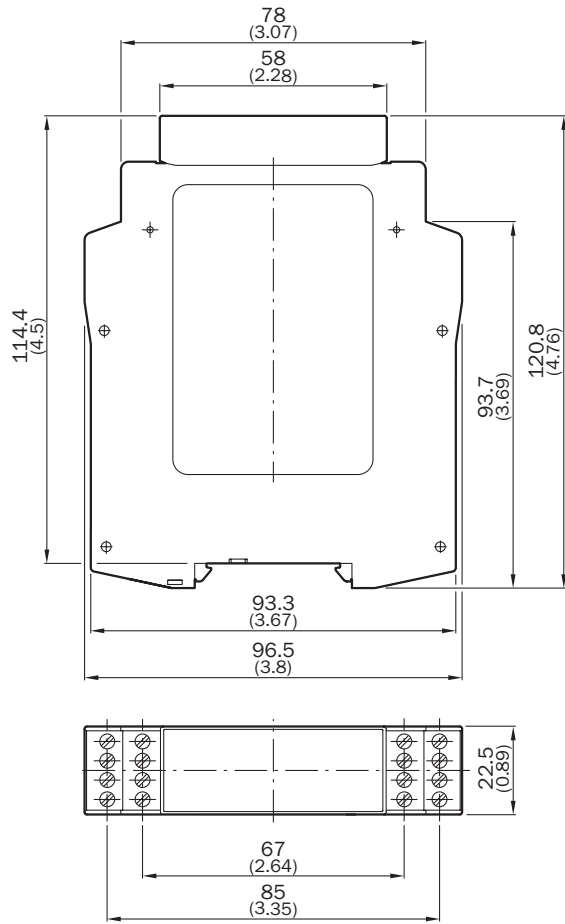
| | |
|--------------------------------------|--------------------------------|
| Number of sensors | 2 pieces |
| Detection zone | 30 mm ... 150 mm ¹⁾ |
| Remission | 6 % ... 90 % |
| Pulse frequency | 10 Hz |
| Response time | ≤ 100 ms |
| Type of light | Visible red light |
| Wave length | 650 nm |
| Light spot size (distance) | Ø 7 mm (50 mm) |
| Connection type | Connector M8, 3-pin |
| Voltage supply | Via safety controller |
| Enclosure rating | IP67 (EN 60529) |
| Ambient operating temperature | -40 °C ... +60 °C |

¹⁾ If no movable physical guard is identified in the detection zone, the safety controller prompts the machine to enter the safe state.

Certificates

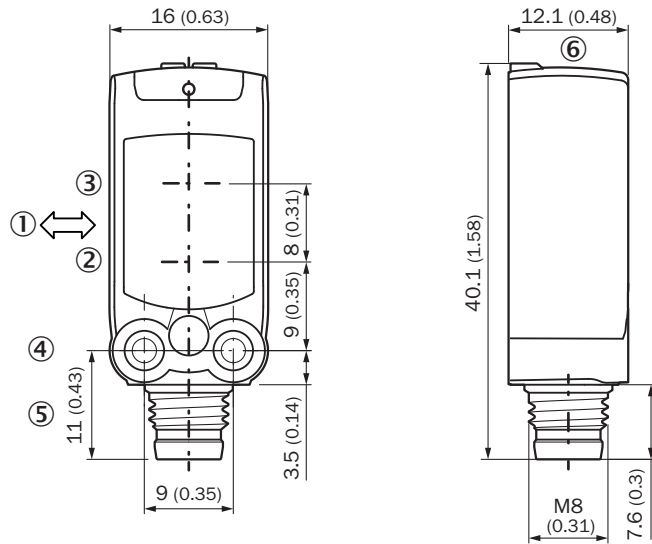
| | |
|-------------------------------------|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| China RoHS | ✓ |
| UK-Type-Examination approval | ✓ |
| TÜV approval | ✓ |
| TÜV approval annex | ✓ |
| EC-Type-Examination approval | ✓ |

Dimensional drawing



Dimensions in mm (inch)

Dimensional drawing



Dimensions in mm (inch)

① Standard direction of the material being detected

- ② Center of optical axis, sender
- ③ Center of optical axis, receiver
- ④ M3 mounting hole
- ⑤ Connection
- ⑥ display and adjustment elements

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