



SYS/SGD-W4104020101FX3

Safeguard Detector

SAFETY SYSTEMS FOR AUTOMATING MATERIAL FLOWS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
SYS/SGD-W4104020101FX3	1129622

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	Flexi Soft variant
Detection zone	30 mm ... 100 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
Items supplied	1 × CPU0 main module 1 × system plug for CPU0 1 × XTIO expansion module (8 inputs, 4 outputs) 2 × WTB4F MultiPulse sensor 100 mm Software license

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

Flexi Soft safety controller

Note	The Flexi Soft station has a modular design and can be customized based on the operator's requirements. At least one main module, the right system plug, and at least one I/O module must be used.
Flexi Soft station construction	Modular 1 main module 1 system plug 0 ... 2 gateways 1 ... 12 expansion modules
Module interconnection	Internal bus (FLEXBUS+)
Configuration method	Via software
Configuration software	Flexi Soft Designer
Software	You can find the software in the Flexi Soft Designer.
Number of connectable sensor pairs	Approx. 12 (depending on logic/number of logic modules used)
Connection type	Spring terminals
Pulse rate of the sensors	10 Hz
Max. safety controller cycle time	≤ 28 ms

Supply voltage V_S	24 V DC (16.8 V ... 30 V)
Protection class	III (EN 50178)
Enclosure rating	IP20 (EN 60529)
Ambient operating temperature	-25 °C ... 55 °C
Type of fieldbus integration	Via gateway
Fieldbus, industrial network	CANopen, EtherCAT®, EtherNet/IP™, Modbus TCP, PROFIBUS DP, PROFINET, DeviceNet™

MultiPulse photoelectric proximity sensor

Number of sensors	2 pieces
Detection zone	30 mm ... 100 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.

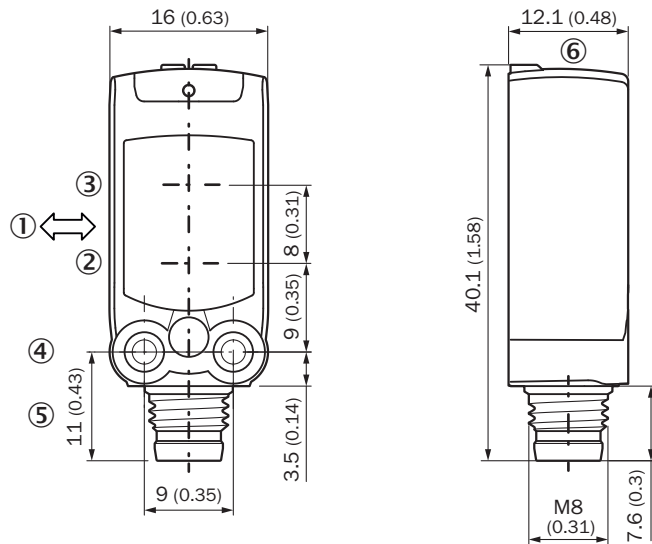
Licenses

Description	Software for the Safeguard Detector safety system based on the Flexi Soft safety control device. The software for the Safeguard Detector safety system consists of safe logic for the Flexi Soft safety controller and contains ready-made safety functions for detecting a movable guard in order to reliably prevent access to the hazardous point.
Product type	Software
License type	Single license
Scope of use	It is a single license. Each license can only be assigned to one device or one workstation.
Fee-based	Yes
License period	The usage rights granted above are perpetual.

Certificates

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

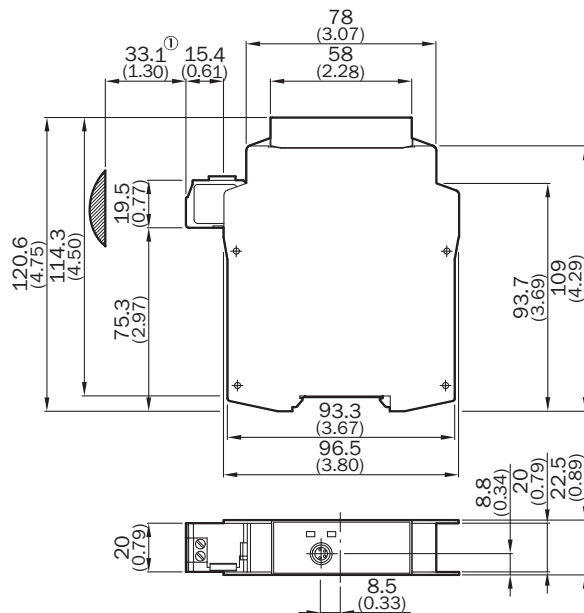
Dimensional drawing



Dimensions in mm (inch)

- 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

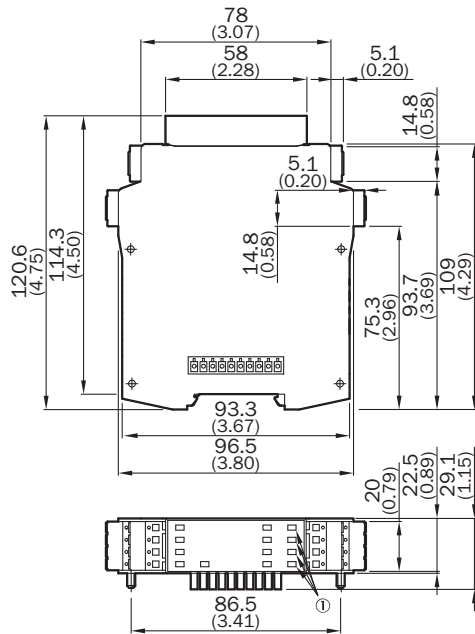
Dimensional drawing FX3-CPU0



Dimensions in mm (inch)

- ① Approximate connector range

Dimensional drawing FX3-XTIO, FX3-XTDI



Dimensions in mm (inch)

① Only valid for FX3-XTIO

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