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DATA SHEET

SYS/SGD-W4154020101FX3

Safeguard Detector
Safety systems for automating material flows

SICK Sensor Intelligence



SAFETY SYSTEMS FOR AUTOMATING MATERIAL FLOWS

SYS/SGD-W4154020101FX3

ORDERING INFORMATION

Type	part no.
SYS/SGD-W4154020101FX3	1129654

Further device versions and accessories at 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 ... 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)	$1.0 * 10^{-7}$
Items supplied	1 × CPU0 main module 1 × system plug for CPU0 1 × XTIO expansion module (8 inputs, 4 outputs) 2 × WTB4F MultiPulse sensor 150 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 ... 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.

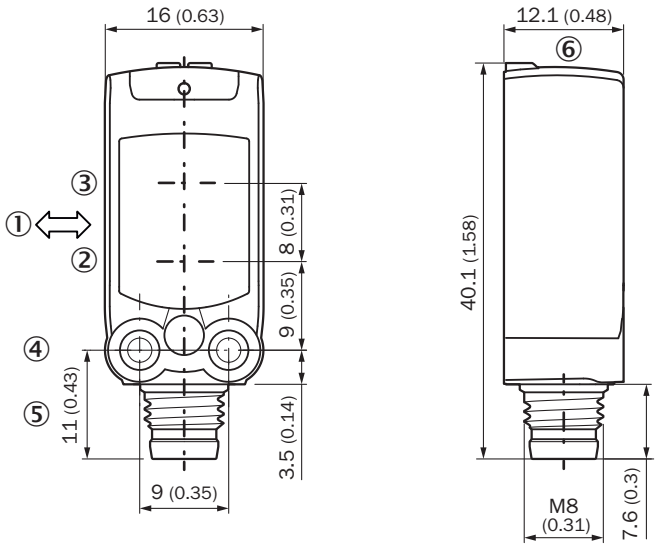
LICENSES

Product type	Software
License type	Single license
Fee-based	Yes
License period	The usage rights granted above are perpetual.
Number of usage units	It is a single license. Each license can only be assigned to one device or one workstation.

CERTIFICATES

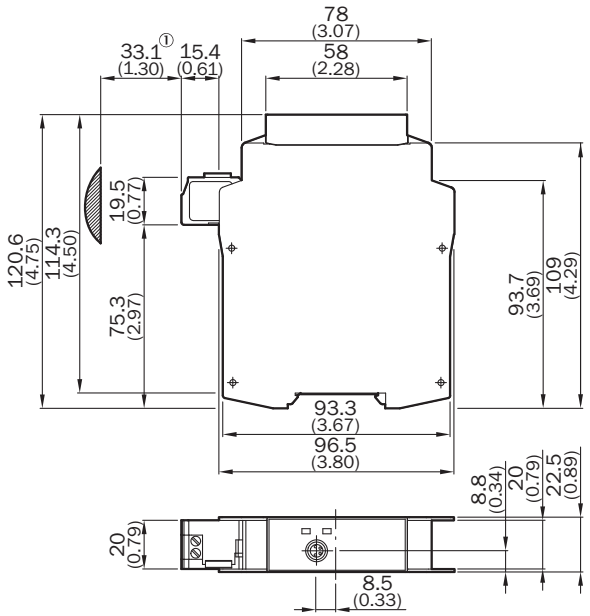
EU declaration of conformity	✓
UK declaration of conformity	✓
China RoHS	✓
UK-Type-Examination approval	✓
TÜV approval	✓
TÜV approval annex	✓
EC-Type-Examination approval (Machinery Directive)	✓
EC-Type-Examination approval (Machinery Regulation)	✓

DIMENSIONAL DRAWING



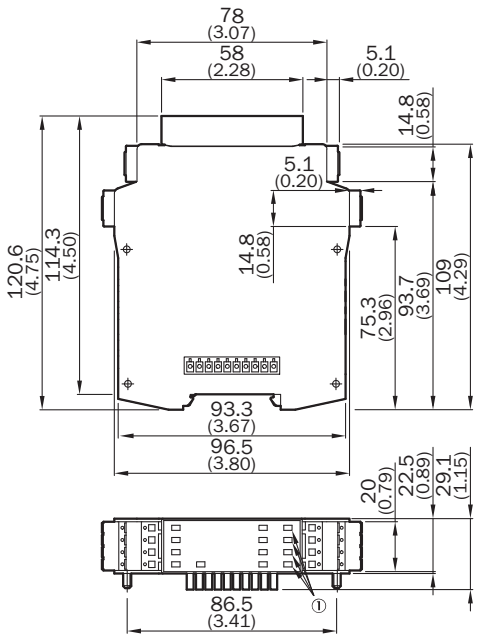
Dimensions in mm (inch)
① Standard direction of the material being detected
② Center of optical axis, sender
③ Center of optical axis, receiver
④ M3 mounting hole
⑤ Connection
⑥ display and adjustment elements

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

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1129654

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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