



SAPP02D-06AP002

Safeguard Detector

SAFETY SYSTEMS FOR AUTOMATING MATERIAL FLOWS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
SAPP02D-06AP002	1066072

Included in delivery: FX3-CPU000000 (1), FX3-XTI084002 (1), FX3-MPL000001 (1)

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

Detailed technical data

Features

Safety-related parameters		
	Category	Category 3 (EN ISO 13849-1)
	Performance level	PL d (EN ISO 13849-1)
	PFH _D (mean probability of a dangerous failure per hour)	1.8 x 10 ⁻⁷
	DC _{avg} (diagnostic coverage)	91 % (EN ISO 13849-1)
	MTTF _D (mean time to dangerous failure)	63 years (EN ISO 13849-1)
Items supplied		1 x main module CPU0 1 x system plug FX3-MPL000001 1 x FX3-XTI084002 I/O module 1 x SAPP02D-06A0002 MultiPulse sensor pair

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. 30 (depending on logic/number of logic modules used)
Connection type		Spring terminals
Pulse rate of the sensors		2 Hz
Max. safety controller cycle time		
	Pulse rate 10 Hz	≤ 28 ms
	Pulse rate 2 Hz	≤ 148 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
Fieldbus, industrial network	CANopen, EtherCAT®, EtherNet/IP™, Modbus TCP, PROFIBUS DP, PROFINET, DeviceNet™
Type of fieldbus integration	Via gateway

MultiPulse photoelectric proximity sensor

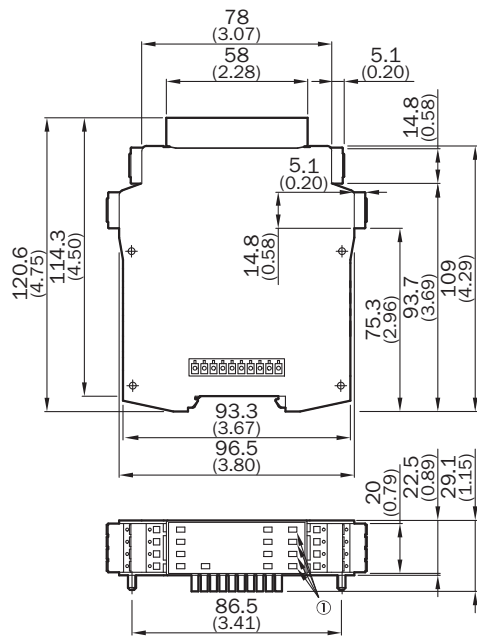
Number of sensors	2 pieces
Detection zone	30 mm ... 100 mm ¹⁾
Remission	6 % ... 90 %
Pulse frequency	2 Hz
Response time	≤ 500 ms
Type of light	Visible red light
Wave length	650 nm
Light spot size (distance)	Ø 7 mm (50 mm)
Connection type	Connector M8, 3-pin
Voltage supply	Via Flexi Soft
Enclosure rating	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.

Classifications

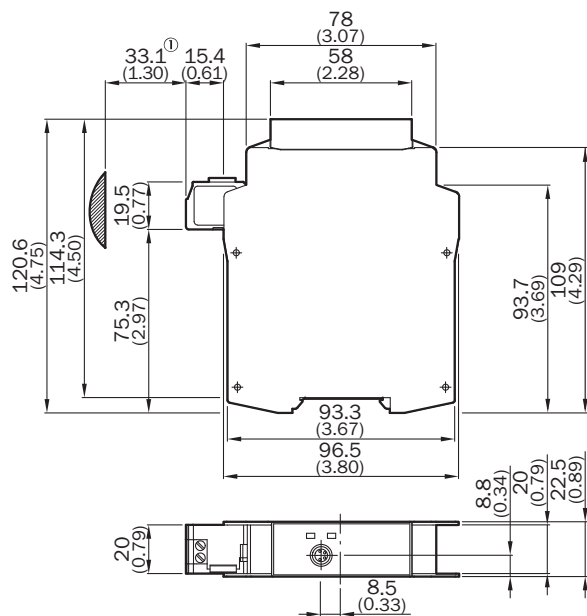
ECLASS 5.0	27279090
ECLASS 5.1.4	27279090
ECLASS 6.0	27279090
ECLASS 6.2	27279090
ECLASS 7.0	27279090
ECLASS 8.0	27279090
ECLASS 8.1	27279090
ECLASS 9.0	27279090
ECLASS 10.0	27279090
ECLASS 11.0	27279090
ECLASS 12.0	27279090
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
UNSPSC 16.0901	32151705

Dimensional drawing FX3-XTIO, FX3-XTDI



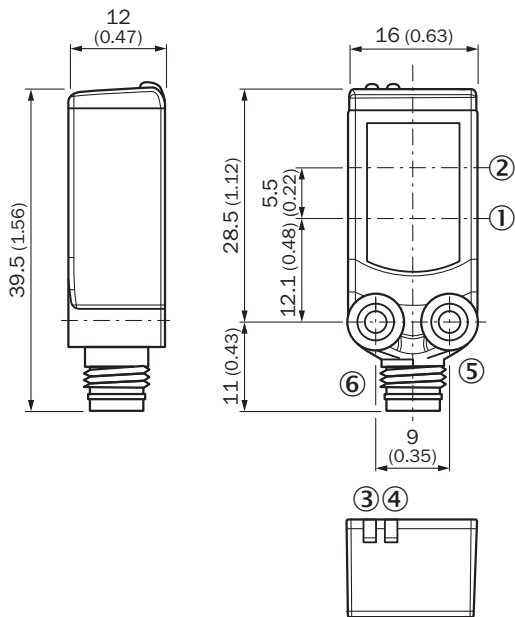
Dimensions in mm (inch)
 ① Only valid for FX3-XTIO

Dimensional drawing FX3-CPU0



Dimensions in mm (inch)
 ① Approximate connector range

Dimensional drawing



Dimensions in mm (inch)

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