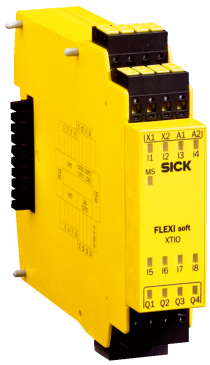
Product data sheet

FX3-XTIO84002

Flexi Soft

SAFETY CONTROLLERS

SICK
Sensor Intelligence.



Ordering information

Number of safety inputs	Number of test outputs	Number of safe outputs	Type	Part no.
8	2	4	FX3-XTIO84002	1044125

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

Detailed technical data

Features

Module	I/O module
Configuration method	Via software (Flexi Soft Designer, Safe EFI-pro System: Safety Designer)

Safety-related parameters

Safety integrity level	SIL 3 (IEC 61508)
Category	Category 4 (EN ISO 13849)
Performance level	PL e (EN ISO 13849)
PFH_D (mean probability of a dangerous failure per hour)	4.8×10^{-9} (EN ISO 13849) [1)] 0.9×10^{-9} (EN ISO 13849) [2)]
T_M (mission time)	20 years (EN ISO 13849)

[1)] For single channel outputs.
[2)] For dual channel outputs.

Functions

Flexi Loop-compatible	✓
Fast shut-off	✓
Fast shut-off time	8 ms

Interfaces

Number of safety inputs	8
Number of test outputs	2
Number of safe outputs	4
Connection type	Plug-in spring terminals

Electrical data

Protection class	III (EN 61140)
Voltage supply	Via FLEXBUS+
Internal power consumption	≤ 2.2 W [1]
Inputs	
Input voltage HIGH	13 V DC ... 30 V DC
Input voltage LOW	–5 V DC ... 5 V DC
Input current HIGH	2.4 mA ... 3.8 mA
Input current LOW	–2.5 mA ... 2.1 mA
Test outputs	
Voltage supply	Via FLEXBUS+
Type of output	PNP semiconductors, short-circuit protected
Test pulse generator	2
Output voltage HIGH	15 V DC ... 30 V DC
Output current	≤ 120 mA [2]
Outputs	
Voltage supply	Via A1, A2
Supply voltage	24 V DC (16.8 V DC ... 30 V DC)
Type of supply voltage	PELV or SELV [3]
Type of output	PNP semiconductors, short-circuit protected
Output voltage HIGH	16 V DC ... 30 V DC
Output current	≤ 2 A

[1] Via FLEXBUS+, without streams at test outputs.
[2] On each of the two test pulse generators. This makes max. 8 testable safe series connections possible per module, each with max. 30 mA.
[3] The current of the power supply that powers the module must be limited to a maximum of 4 A, either through the power supply itself or a fuse.

Mechanical data

Dimensions (W x H x D)	22.5 mm x 96.5 mm x 120.6 mm
Weight	164 g (± 5 %)

Ambient data

Enclosure rating	IP20 (EN 60529)
Ambient operating temperature	–25 °C ... +55 °C
Storage temperature	–25 °C ... +70 °C
Air humidity	≤ 95 %, Non-condensing

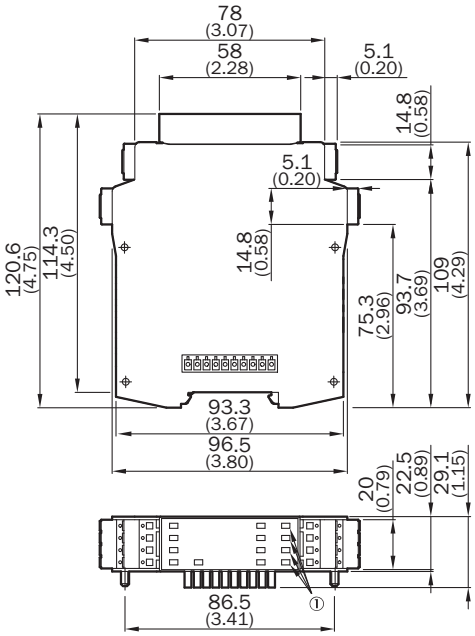
Classifications

ECLASS 5.0	27243001
ECLASS 5.1.4	27243101
ECLASS 6.0	27243101
ECLASS 6.2	27243101
ECLASS 7.0	27243101
ECLASS 8.0	27243101
ECLASS 8.1	27243101
ECLASS 9.0	27243101

ECLASS 10.0	27243101
ECLASS 11.0	27243101
ECLASS 12.0	27243101
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
UNSPSC 16.0901	32151705

Dimensional drawing (Dimensions in mm (inch))

FX3-XTIO, FX3-XTDI



① Only valid for FX3-XTIO

Recommended accessories

Other models and accessories ➜ www.sick.com/Flexi_Soft

	Brief description	Type	Part no.
Others			
	• **Sub product family:** SIM1000 FX • **Product category:** Programmable devices • **Supported products:** 2D and 3D LiDAR sensors, incremental and absolute encoders, Image-based code readers, Fixed mount barcode scanners, RFID read/write device, displacement measurement sensors, Photoelectric sensors, Flexi Soft main module • **Processor:** Dual-core ARM Cortex-A9 CPU with NEON accelerator • **Toolkit:** SICK algorithm API • **Further functions:** FPGA for I/O handling • **Connections:** Terminal block 1-4, Ethernet, FLEXBUS+ • **Enclosure rating:** IP20	SIM1000-0P0B110	1097817
Safety switching amplifier			
	• **Applications:** Output expansion module for OSSDs • **Compatible sensor types:** Safety sensors with OSSDs • **Connection type:** Front connector with spring terminals • **Restart interlock:** no • **External device monitoring (EDM):** Via path • **Outputs:** 2 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe) • **Housing width:** 18 mm	RLY3-OSSD100	1085343
	• **Applications:** Output expansion module for OSSDs • **Compatible sensor types:** Safety sensors with OSSDs • **Connection type:** Front connector with spring terminals • **Restart interlock:** no • **External device monitoring (EDM):** Via path • **Outputs:** 4 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe), 1 signaling current path (not safe) • **Housing width:** 28 mm	RLY3-OSSD400	1099971

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."

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