Data sheet

FX3-XTIO84012

Flexi Soft

SAFETY CONTROLLERS

SICK
Sensor Intelligence.

Ordering information

Type	part no.
FX3-XTIO84012	1050618

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

Detailed technical data

Features

Module	I/O module
Configuration method	Via software (Flexi Soft Designer)
Specialty	Protective coating for more challenging ambient conditions (e.g., resistance to sulfur).

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

Electronics

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.

Mechanics

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
Single gas resistance (sulfur dioxide)	25 ppm, 21 days, 25 °C (IEC 60068-2-42 - Kc)
Mixed gas resistance	100 ppb - H_2S 2000 ppb - NO_2 100 ppb - Cl_2 2,000 ppb - SO_2, 21 days, 30 °C (IEC 60068-2-60 Ke)

Certificates

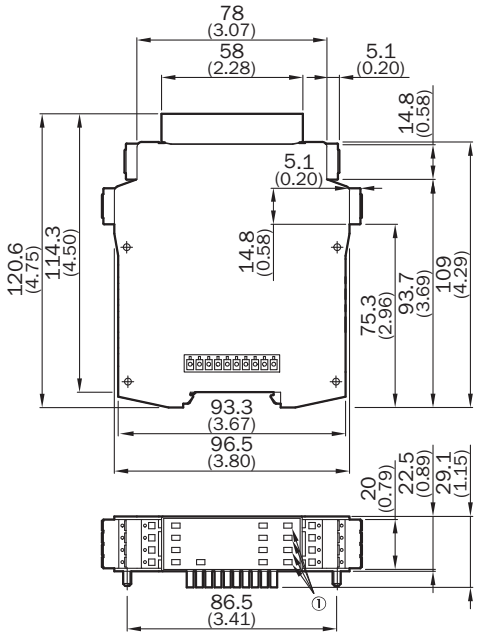
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓

China RoHS	✓
CCC certificate	✓
UK-Type-Examination approval	✓
cULus certificate	✓
KC Mark certificate	✓
cTUVus certificate	✓
S Mark certificate	✓
EC-Type-Examination approval	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

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 FX3-XTIO, FX3-XTDI



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

Recommended accessories

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

	Brief description	Type	part no.
Safety relays			
	• **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
	• **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

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

SICK
Sensor Intelligence.