FX3-ANA020012

Flexi Soft

SAFETY CONTROLLERS

SICK
Sensor Intelligence.

Ordering information

Number of safe analog inputs	Protective coating	Type	Part no.
2	✓	FX3-ANA020012	1112299

Protective coating for more challenging ambient conditions (e.g., resistance to sulfur).

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

Detailed technical data

Features

Module	Analog input 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)	0.166×10^{-9}
T$_M$ (mission time)	20 years (EN ISO 13849-1)

Functions

Limit value monitoring	✓
Signal range detection	✓

Interfaces

Number of safe analog inputs	2
Connection type	Plug-in spring terminals

Electrical data

Protection class	III (EN 61140)
Voltage supply	Via FLEXBUS+
Internal power consumption	≤ 2 W [1]
Analogue inputs	

[1] Via FLEXBUS+, without streams at analog inputs.

[2] Threshold below which a sensor fault is assumed. A max. deviation of 1% (full scale value) gives a tolerance range of 3.3 mA to 3.7 mA.

[3] Threshold above which a sensor fault is assumed. A max. deviation of 1% (full scale value) gives a tolerance range of 20.3 mA to 20.7 mA.

Input voltage	≤ 30 V DC
Input current	≤ 30 mA
Current measuring range	4 mA ... 20 mA
Current input measuring range	3.5 mA ... 20.5 mA [2) 3)]
Input resistance	50 Ω

[1)] Via FLEXBUS+, without streams at analog inputs.

[2)] Threshold below which a sensor fault is assumed. A max. deviation of 1% (full scale value) gives a tolerance range of 3.3 mA to 3.7 mA.

[3)] Threshold above which a sensor fault is assumed. A max. deviation of 1% (full scale value) gives a tolerance range of 20.3 mA to 20.7 mA.

Mechanical data

Dimensions (W x H x D)	22.5 mm x 96.5 mm x 120.6 mm
Weight	117 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)

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-ANA0
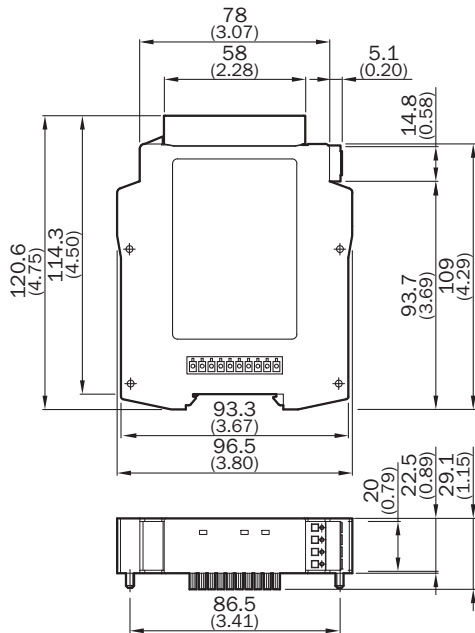
Recommended accessories

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

Brief description	Type	Part no.
• **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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