



# FX3-ANA020012

Flexi Soft

**SAFETY CONTROLLERS**

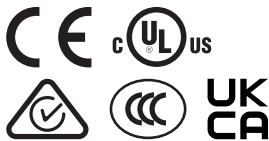
**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
FX3-ANA020012	1112299

Other models and accessories → [www.sick.com/Flexi\\_Soft](http://www.sick.com/Flexi_Soft)



### Detailed technical data

#### Features

<b>Module</b>	Analog input module
<b>Configuration method</b>	Via software (Flexi Soft Designer)
<b>Specialty</b>	Protective coating for more challenging ambient conditions (e.g., resistance to sulfur).

#### Safety-related parameters

<b>Safety integrity level</b>	SIL 3 (IEC 61508)
<b>Category</b>	Category 4 (EN ISO 13849)
<b>Performance level</b>	PL e (EN ISO 13849)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	$0.166 \times 10^{-9}$
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849-1)

#### Functions

<b>Limit value monitoring</b>	✓
<b>Signal range detection</b>	✓

#### Interfaces

<b>Number of safe analog inputs</b>	2
<b>Connection type</b>	Plug-in spring terminals

#### Electronics

<b>Protection class</b>	III (EN 61140)
<b>Voltage supply</b>	Via FLEXBUS+
<b>Internal power consumption</b>	$\leq 2 \text{ W}^{1)}$

<sup>1)</sup> Via FLEXBUS+, without streams at analog inputs.

<sup>2)</sup> 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.

<sup>3)</sup> 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.

Analogue inputs	
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 <sup>2) 3)</sup>
Input resistance	50 Ω

<sup>1)</sup> Via FLEXBUS+, without streams at analog inputs.

<sup>2)</sup> 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.

<sup>3)</sup> 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.

## Mechanics

<b>Dimensions (W x H x D)</b>	22.5 mm x 96.5 mm x 120.6 mm
<b>Weight</b>	117 g (± 5 %)

## Ambient data

<b>Enclosure rating</b>	IP20 (EN 60529)
<b>Ambient operating temperature</b>	-25 °C ... +55 °C
<b>Storage temperature</b>	-25 °C ... +70 °C
<b>Air humidity</b>	≤ 95 %, Non-condensing
<b>Single gas resistance (sulfur dioxide)</b>	25 ppm, 21 days, 25 °C (IEC 60068-2-42 - Kc)
<b>Mixed gas resistance</b>	100 ppb - H <sub>2</sub> S 2000 ppb - NO <sub>2</sub> 100 ppb - Cl <sub>2</sub> 2,000 ppb - SO <sub>2</sub> , 21 days, 30 °C (IEC 60068-2-60 Ke)

## Certificates

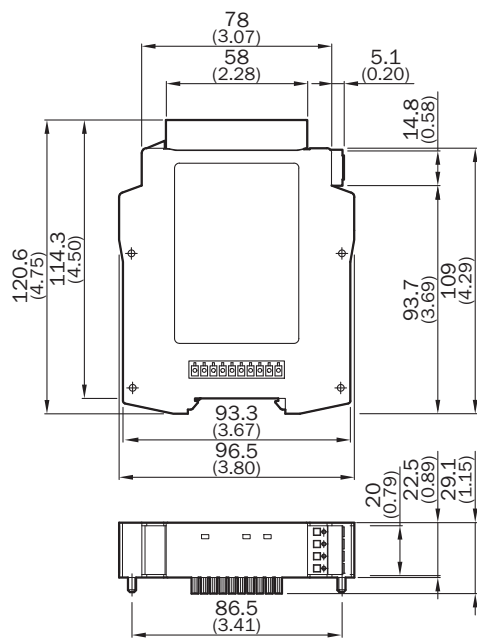
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>CCC certificate</b>	✓
<b>UK-Type-Examination approval</b>	✓
<b>cULus certificate</b>	✓
<b>cTUVus certificate</b>	✓
<b>EC-Type-Examination approval</b>	✓
<b>Information according to Art. 3 of Data Act (Regulation EU 2023/2854)</b>	✓

## Classifications

<b>ECLASS 5.0</b>	27243001
<b>ECLASS 5.1.4</b>	27243101
<b>ECLASS 6.0</b>	27243101
<b>ECLASS 6.2</b>	27243101
<b>ECLASS 7.0</b>	27243101
<b>ECLASS 8.0</b>	27243101
<b>ECLASS 8.1</b>	27243101

<b>ECLASS 9.0</b>	27243101
<b>ECLASS 10.0</b>	27243101
<b>ECLASS 11.0</b>	27243101
<b>ECLASS 12.0</b>	27243101
<b>ETIM 5.0</b>	EC001449
<b>ETIM 6.0</b>	EC001449
<b>ETIM 7.0</b>	EC001449
<b>ETIM 8.0</b>	EC001449
<b>UNSPSC 16.0901</b>	32151705



### Dimensional drawing FX3-ANA0



Dimensions in mm (inch)

Recommended accessories

Other models and accessories → [www.sick.com/Flexi\\_Soft](http://www.sick.com/Flexi_Soft)

	Brief description	Type	part no.
Safety relays			
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Output expansion module for OSSDs</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> no</li> <li>• <b>External device monitoring (EDM):</b> Via path</li> <li>• <b>Outputs:</b> 4 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe), 1 signaling current path (not safe)</li> <li>• <b>Housing width:</b> 28 mm</li> </ul>	RLY3-OSSD400	1099971
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Output expansion module for OSSDs</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> no</li> <li>• <b>External device monitoring (EDM):</b> Via path</li> <li>• <b>Outputs:</b> 2 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe)</li> <li>• <b>Housing width:</b> 18 mm</li> </ul>	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](http://www.sick.com)