



# FX3-CPU320012

Flexi Soft

**SAFETY CONTROLLERS**

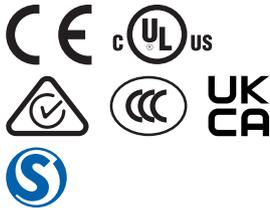
**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
FX3-CPU320012	1112302

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



### Detailed technical data

#### Features

<b>Module</b>	Main module
<b>Configuration method</b>	Via software (Flexi Soft Designer)
<b>Note</b>	The system plug has to be ordered separately. For details, see "Accessories".
<b>Specialty</b>	Protective coating for more challenging ambient conditions (e.g., resistance to sulfur).
<b>Items supplied</b>	Main module without system plug Terminal plug spring for EFI interface Terminal plug spring for Flexi-Line interface Safety instruction Operating instructions for download

#### 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>	1.69 x 10 <sup>-9</sup> (EN ISO 13849) 0.4 x 10 <sup>-9</sup> (EN ISO 13849) <sup>1)</sup>
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)

<sup>1)</sup> Applies for a main module FX3-CPU3 that is used exclusively for routing information via Flexi Line.

#### Functions

<b>Safe SICK device communication</b>	✓
<b>Safe networking</b>	Flexi Link ✓
	Flexi Line ✓
<b>Automatic Configuration Recovery (ACR)</b>	✓

## Interfaces

<b>System connection</b>	System plug <sup>1)</sup>
<b>Number of EFI interfaces</b>	2
<b>Flexi Line connection</b>	✓
<b>Connection type</b>	Plug-in spring terminals
<b>Configuration and diagnostics interface</b>	RS-232 (M8 female connector, 4-pin) Mini-USB

<sup>1)</sup> The system plug has to be ordered separately. For details, see "Accessories".

## Electronics

<b>Protection class</b>	III (EN 61140)
<b>Type of voltage supply</b>	PELV or SELV <sup>1)</sup>
<b>Supply voltage <math>V_s</math></b>	24 V DC (16.8 V DC ... 30 V DC)
<b>Internal power consumption</b>	≤ 2.5 W
<b>Overvoltage category</b>	II (EN 61131-2)
<b>Switch-on time</b>	≤ 18 s

<sup>1)</sup> The current of the power supply that powers the main unit must be limited to a maximum of 4 A, either through the power supply itself or a fuse.

## Mechanics

<b>Dimensions (W x H x D)</b>	22.5 mm x 96.5 mm x 120.6 mm
<b>Weight</b>	133 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)

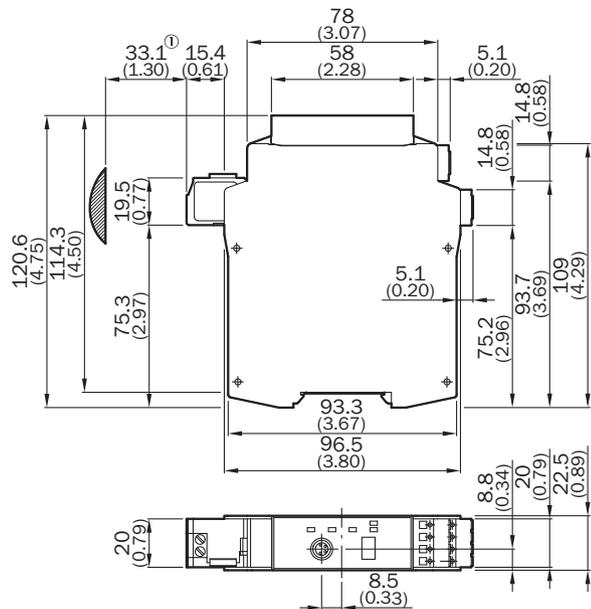
## Certificates

<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>S Mark 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 CPU3



Dimensions in mm (inch)

① Approximate connector range

### 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
connectors and cables			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M8, 4-pin, straight</li> <li>• <b>Connection type head B:</b> Male connector, USB-A, straight</li> <li>• <b>Cable:</b> 2 m, 4-wire, PVC</li> <li>• <b>Description:</b> Unshielded</li> </ul>	DSL-8U04G02M025KM:	6034574
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M8, 4-pin, straight</li> <li>• <b>Connection type head B:</b> Male connector, USB-A, straight</li> <li>• <b>Cable:</b> 10 m, 4-wire, PVC</li> <li>• <b>Description:</b> Unshielded</li> </ul>	DSL-8U04G10M025KM:	6034575

## 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)