



# FLX3-CPUC100

Flexi Compact

**SAFETY CONTROLLERS**

**SICK**  
Sensor Intelligence.



### Ordering information

#### Main modules

Connection type	Inputs/outputs	Type	Part no.
Front connector with spring terminals	20 safety capable inputs 4 safety outputs 8 test outputs	FLX3-CPUC100	1085349

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



### Detailed technical data

#### Features

<b>Module</b>	Main module
<b>Description</b>	The main module is the central process unit of the modular safety controller. All incoming signals are monitored and logically processed in the main module. The outputs are switched based on this processing.
<b>Safety inputs</b>	20
<b>Safety outputs</b>	4
<b>Test outputs</b>	8
<b>Configuration method</b>	Via software (Safety Designer)
<b>Items supplied</b>	Main module SmartPlug Front connector with 16 terminals and opening for SmartPlug Front connector with 18 terminals Housing end cap Safety instruction Operating instructions for download

#### Safety-related parameters

<b>Safety integrity level</b>	SIL3 (IEC 61508) SILCL3 (IEC 62061)
<b>Category</b>	Category 4 (ISO 13849-1)
<b>Performance level</b>	PL e (ISO 13849-1)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	$4 \times 10^{-9}$ <sup>1)</sup>
<b>T<sub>M</sub> (mission time)</b>	20 years (ISO 13849-1)

<sup>1)</sup> Calculated value when using dual-channel safety inputs and safety outputs with test pulse. Maximum  $9 \times 10^{-9}$  with single-channel safety inputs and safety outputs without test pulse. For details, see the operating instructions.

#### Functions

<b>Programmable logic</b>	✓
<b>Monitoring of the connected safety devices</b>	✓

<b>Switching of the connected safety devices</b>	✓
<b>Fast shut-off</b>	✓
<b>Testing of the connected safety devices and the wiring (short-circuit detection)</b>	✓
<b>Use of the test outputs as non-safe outputs</b>	✓
<b>Safe series connection with Flexi Loop</b>	✓

## Interfaces

<b>Connection type</b>	Front connector with spring terminals
<b>Front connector</b>	1 front connector with 16 terminals and opening for SmartPlug 1 front connector with 18 terminals
<b>Safety inputs</b>	20
<b>Safety outputs</b>	4
<b>Test outputs</b>	8
<b>Configuration and diagnostics</b>	
USB connection via SmartPlug	✓
<b>Display elements</b>	LEDs

## Electrical data

<b>Protection class</b>	III (EN 61140)
<b>Interference resistance</b>	EN 61000-6-2
<b>Interference emission</b>	EN 61000-6-4
<b>Voltage supply</b>	The voltage supply of the main module is maintained directly via the terminals on the front connector
<b>Supply voltage <math>V_s</math></b>	24 V DC (16.8 V ... 30 V) <sup>1)</sup>
<b>Type of voltage supply</b>	PELV or SELV <sup>2)</sup>
<b>Overvoltage category</b>	II (EN 61131-2)
<b>Power consumption at nominal voltage (without outputs)</b>	3 W (DC)
<b>Power loss</b>	≤ 6.2 W

<sup>1)</sup> Voltage supply of the main module and the extension modules connected via the backplane bus.

<sup>2)</sup> The supply current must be limited externally to max. 8 A – either by the power supply unit used, or by means of a fuse.

## Mechanical data

<b>Dimensions (W x H x D)</b>	46.2 mm x 124.7 mm x 85.5 mm
<b>Contamination rating</b>	2 (IEC 61010-1)
<b>Control device type</b>	Open device (IEC 61010-2-201)
<b>Weight</b>	277 g (± 5 %)
<b>Mounting</b>	Mounting on a 35 mm × 7.5 mm mounting rail in accordance with IEC 60715

## Ambient data

<b>Enclosure rating</b>	IP20 (EN 60529)
<b>Ambient operating temperature</b>	–25 °C ... +55 °C <sup>1)</sup>
<b>Storage temperature</b>	–25 °C ... +70 °C

<sup>1)</sup> At altitudes up to 2,000 m above sea level For higher areas of application up to max. 4,000 m above sea level, see the operating instructions.

<b>Air humidity</b>	10 % ... 95 %, Non-condensing
<b>Vibration resistance</b>	15 g, 5 Hz ... 200 Hz (EN 60068-2-6)
<b>Shock resistance</b>	15 g, 11 ms (EN 60068-2-27)

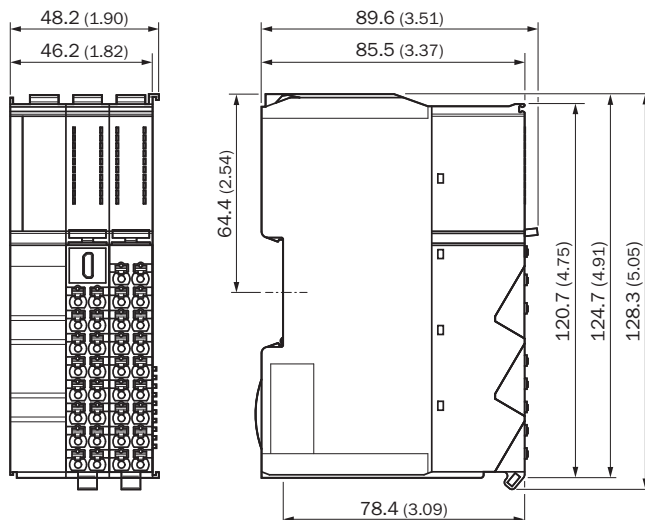
<sup>1)</sup> At altitudes up to 2,000 m above sea level For higher areas of application up to max. 4,000 m above sea level, see the operating instructions.

### Classifications

<b>ECl@ss 5.0</b>	27243001
<b>ECl@ss 5.1.4</b>	27243101
<b>ECl@ss 6.0</b>	27243101
<b>ECl@ss 6.2</b>	27243101
<b>ECl@ss 7.0</b>	27243101
<b>ECl@ss 8.0</b>	27243101
<b>ECl@ss 8.1</b>	27243101
<b>ECl@ss 9.0</b>	27243101
<b>ECl@ss 10.0</b>	27243101
<b>ECl@ss 11.0</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 (Dimensions in mm (inch))

FLX3-CPUC100 main module



## 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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