



# FLX3-CPUC200

Flexi Compact

SAFETY CONTROLLERS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
FLX3-CPUC200	1085351

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>Security Level</b>	SL-C 1 (IEC 62443-4-2)
<b>Fieldbus</b>	Modbus <sup>®</sup> TCP
<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>	SIL 3 (IEC 61508)
<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>	✓
<b>Data exchange via Modbus® TCP and SLMP</b>	✓
<b>Configuration of the safety controller via TCP/IP</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	✓
TCP/IP configuration interface	✓
<b>Fieldbus</b>	Modbus® TCP
<b>Fieldbus interface</b>	1 x female connector, RJ45
<b>Note</b>	Ethernet interface as a TCP/IP configuration interface and data exchange via Modbus® TCP and SLMP
<b>Display elements</b>	LEDs

## Electronics

<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>	≤ 6.3 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.

## Mechanics

<b>Dimensions (W x H x D)</b>	46.2 mm x 124.7 mm x 85.5 mm
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<b>Contamination rating</b>	2 (IEC 61010-1)
<b>Control device type</b>	Open device (IEC 61010-2-201)
<b>Weight</b>	282 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
<b>Air humidity</b>	≤ 95 %, Non-condensing
<b>Vibration resistance</b>	1 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.

### Certificates

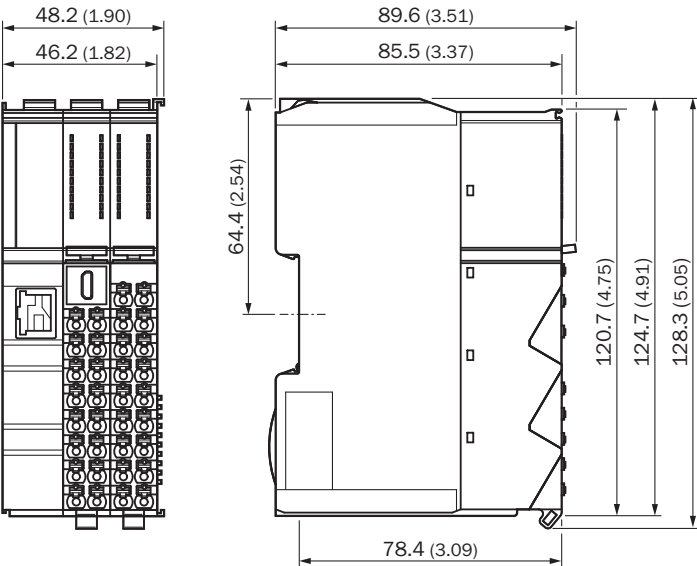
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>UK-Type-Examination approval</b>	✓
<b>cULus certificate</b>	✓
<b>cTUVus certificate</b>	✓
<b>S Mark certificate</b>	✓
<b>EC-Type-Examination approval</b>	✓
<b>EC-Type-Examination approval (Machinery Directive)</b>	✓
<b>EC-Type-Examination approval (Machinery Regulation)</b>	✓
<b>Third party certificate</b>	✓
<b>Cybersecurity certificate</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

ETIM 6.0	EC001449
ETIM 7.0	EC001449
ETIM 8.0	EC001449
UNSPSC 16.0901	32151705



Dimensional drawing FLX3-CPUC200 main module



Dimensions in mm (inch)

Recommended accessories

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

	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)