



FLX3-XTDO100

Flexi IO

SAFETY CONTROLLERS

SICK
Sensor Intelligence.



Ordering information

| Type | part no. |
|--------------|----------|
| FLX3-XTDO100 | 1085354 |

Other models and accessories → www.sick.com/Flexi_IO



Detailed technical data

Features

| | |
|-------------------------------|--|
| Module | I/O module |
| Description | The I/O module is a safe digital input/output expansion module. |
| Safety inputs | 8 |
| Safety outputs | 8 |
| Security Level | SL-C 1 (IEC 62443-4-2) |
| Configuration software | Safety Designer |
| Items supplied | I/O module Front connector with 18 terminals Safety instruction Operating instructions for download |

Safety-related parameters

| | |
|---|----------------------------------|
| Safety integrity level | SIL 3 (IEC 61508) |
| Category | Category 4 (ISO 13849-1) |
| Performance level | PL e (ISO 13849-1) |
| PFH_D (mean probability of a dangerous failure per hour) | 4×10^{-9} ¹⁾ |
| T_M (mission time) | 20 years (ISO 13849-1) |

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

Functions

| | |
|---|---|
| Monitoring of the connected safety devices | ✓ |
| Switching of the connected safety devices | ✓ |
| Fast shut-off | ✓ |

Interfaces

| | |
|------------------------|-------------------------------------|
| Front connector | 1 front connector with 18 terminals |
|------------------------|-------------------------------------|

| | |
|-------------------------|------|
| Safety inputs | 8 |
| Safety outputs | 8 |
| Display elements | LEDs |

Electronics

| | |
|---|---|
| Protection class | III (EN 61140) |
| Interference resistance | EN 61000-6-2 |
| Interference emission | EN 61000-6-4 |
| Voltage supply | The voltage supply of the extension modules is maintained via the backplane bus |
| Supply voltage V_s | 24 V DC (16.8 V ... 30 V) ¹⁾ |
| Type of voltage supply | PELV or SELV ²⁾ |
| Overvoltage category | II (EN 61131-2) |
| Power consumption at nominal voltage (without outputs) | 2.4 W (DC) |
| Power loss | ≤ 4.9 W |

¹⁾ Voltage supply of the safety outputs.

²⁾ The supply current must be limited externally to max. 4 A – either by the power supply unit used, or by means of a fuse.

Mechanics

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|-------------------------------|---|
| Dimensions (W x H x D) | 14 mm x 124.7 mm x 85.5 mm |
| Contamination rating | 2 (IEC 61010-1) |
| Control device type | Open device (IEC 61010-2-201) |
| Weight | 111 g (± 5 %) |
| Mounting | Mounting on a 35 mm × 7.5 mm mounting rail in accordance with IEC 60715 |

Ambient data

| | |
|--------------------------------------|-------------------------------------|
| Enclosure rating | IP20 (EN 60529) |
| Ambient operating temperature | -25 °C ... +55 °C ¹⁾ |
| Storage temperature | -25 °C ... +70 °C |
| Air humidity | ≤ 95 %, Non-condensing |
| Vibration resistance | 1 g, 5 Hz ... 200 Hz (EN 60068-2-6) |
| Shock resistance | 15 g, 11 ms (EN 60068-2-27) |

¹⁾ 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

| | |
|---------------------------------------|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| China RoHS | ✓ |
| UK-Type-Examination approval | ✓ |
| cULus certificate | ✓ |
| cTUVus certificate | ✓ |
| S Mark certificate | ✓ |
| EC-Type-Examination approval | ✓ |

| | |
|--|---|
| EC-Type-Examination approval (Machinery Directive) | ✓ |
| EC-Type-Examination approval (Machinery Regulation) | ✓ |
| Third party certificate | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |
| Cybersecurity certificate | ✓ |

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 |

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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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