



DATA SHEET

# FX3-XTIO84002

Flexi Soft  
Safety controllers

# SICK

Sensor Intelligence



SAFETY CONTROLLERS

FX3-XTIO84002

ORDERING INFORMATION

| Type          | part no. |
|---------------|----------|
| FX3-XTIO84002 | 1044125  |

Further device versions and accessories at [www.sick.com/Flexi\\_Soft](http://www.sick.com/Flexi_Soft)



DETAILED TECHNICAL DATA

FEATURES

|                      |                                                                          |
|----------------------|--------------------------------------------------------------------------|
| Module               | I/O module                                                               |
| Configuration method | Via software (Flexi Soft Designer, Safe EFI-pro System: Safety Designer) |

SAFETY-RELATED PARAMETERS

|                                                                     |                                                                                                            |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Safety integrity level                                              | SIL 3 (IEC 61508)                                                                                          |
| Category                                                            | Category 4 (EN ISO 13849)                                                                                  |
| Performance level                                                   | PL e (EN ISO 13849)                                                                                        |
| PFH <sub>d</sub> (mean probability of a dangerous failure per hour) | 4.8 x 10 <sup>-9</sup> (EN ISO 13849) <sup>1)</sup><br>0.9 x 10 <sup>-9</sup> (EN ISO 13849) <sup>2)</sup> |
| T <sub>M</sub> (mission time)                                       | 20 years (EN ISO 13849)                                                                                    |

<sup>1)</sup> For single channel outputs.

<sup>2)</sup> For dual channel outputs.

FUNCTIONS

|                       |      |
|-----------------------|------|
| Flexi Loop-compatible | ✓    |
| Fast shut-off         | ✓    |
| Fast shut-off time    | 8 ms |

INTERFACES

|                         |                          |
|-------------------------|--------------------------|
| Number of safety inputs | 8                        |
| Number of test outputs  | 2                        |
| Number of safe outputs  | 4                        |
| Connection type         | Plug-in spring terminals |

**ELECTRONICS**

|                            |                                                                                                                                                                                                                                                                                |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protection class           | III (EN 61140)                                                                                                                                                                                                                                                                 |
| Voltage supply             | Via FLEXBUS+                                                                                                                                                                                                                                                                   |
| Internal power consumption | $\leq 2.2 \text{ W}$ <sup>1)</sup>                                                                                                                                                                                                                                             |
| Inputs                     | Input voltage HIGH 13 V DC ... 30 V DC<br>Input voltage LOW -5 V DC ... 5 V DC<br>Input current HIGH 2.4 mA ... 3.8 mA<br>Input current LOW -2.5 mA ... 2.1 mA                                                                                                                 |
| Test outputs               | Voltage supply Via FLEXBUS+<br>Type of output PNP semiconductors, short-circuit protected<br>Test pulse generator 2<br>Output voltage HIGH 15 V DC ... 30 V DC<br>Output current $\leq 120 \text{ mA}$ <sup>2)</sup>                                                           |
| Outputs                    | Voltage supply Via A1, A2<br>Supply voltage 24 V DC (16.8 V DC ... 30 V DC)<br>Type of supply voltage PELV or SELV <sup>3)</sup><br>Type of output PNP semiconductors, short-circuit protected<br>Output voltage HIGH 16 V DC ... 30 V DC<br>Output current $\leq 2 \text{ A}$ |

<sup>1)</sup> Via FLEXBUS+, without streams at test outputs.

<sup>2)</sup> On each of the two test pulse generators. This makes max. 8 testable safe series connections possible per module, each with max. 30 mA.

<sup>3)</sup> The current of the power supply that powers the module must be limited to a maximum of 4 A, either through the power supply itself or a fuse.

**MECHANICS**

|                        |                              |
|------------------------|------------------------------|
| Dimensions (W x H x D) | 22.5 mm x 96.5 mm x 120.6 mm |
| Weight                 | 164 g ( $\pm 5 \%$ )         |

**AMBIENT DATA**

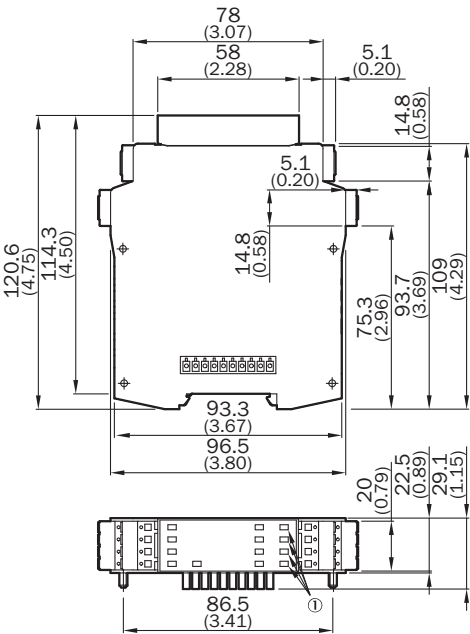
|                               |                               |
|-------------------------------|-------------------------------|
| Enclosure rating              | IP20 (EN 60529)               |
| Ambient operating temperature | -25 °C ... +55 °C             |
| Storage temperature           | -25 °C ... +70 °C             |
| Air humidity                  | $\leq 95 \%$ , Non-condensing |

**CERTIFICATES**

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

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

DIMENSIONAL DRAWING FX3-XTIO, FX3-XTDI



Dimensions in mm (inch)  
① Only valid for FX3-XTIO

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at [www.sick.com/1044125](http://www.sick.com/1044125)

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# SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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