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Safety module - AXL F SSDI8/4 1F - 2702263

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Safety-related digital input module, IP20 protection, for the SafetyBridge system. The module has 4 safe digital inputs for two-channel assignment or 8 safe digital inputs for single-channel assignment.

Product Description

The safety module is an input module from the Axioline F product range for use in a SafetyBridge technology V3 system. The safety module can be used as part of an Axioline F station at any point within an EtherCAT®, EtherNet/IP™, Sercos, Modbus, PROFINET or PROFIBUS system. The module has four safe digital inputs for two-channel assignment or eight safe digital inputs for single-channel assignment. Depending on the installation and parameterization, in the SafetyBridge technology V3 system the safety module can achieve the following safety integrity:
- Up to SIL 3 according to standard EN 61508
- Up to SILCL 3 according to standard EN 62061
- Up to Cat. 4/PL e according to standard EN ISO 13849-1

Your advantages

☑ Cost-effective system configuration, as no safety PLC or safe fieldbus system is required

☑

☑ Reduced installation time, thanks to fast wiring and easy handling

☑ Easy configuration using the free SAFECONF software

☑ Up to Cat. 4/PL e in accordance with EN ISO 13849-1, SIL 3 in accordance with IEC 62061, SIL 3 in accordance with IEC 61508

RoHS | H D/W | **PL** EN ISO 13849 | **SILCL** IEC 62061 | COMPLETE line

Key Commercial Data

Packing unit	1 pc
GTIN	4 055626 066813
GTIN	4055626066813
Weight per Piece (excluding packing)	340.000 g
Custom tariff number	85389091
Country of origin	Germany

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Technical data

Dimensions

Width	53.6 mm
Height	126.1 mm
Depth	54 mm
Note on dimensions	Housing dimensions

Ambient conditions

Ambient temperature (operation)	-35 °C ... 60 °C (Mounting position: any)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 75 % (on average, 85% infrequently, non-condensing)
Permissible humidity (storage/transport)	10 % ... 75 % (non-condensing)
Air pressure (operation)	70 kPa ... 108 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above sea level)
Degree of protection	IP20

Connection data

Designation	Axioline F connector
Connection method	Push-in connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	1.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	1.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

Interfaces

Designation	Axioline F local bus
Number	1
Connection method	Bus base module

Digital inputs

Input name	Digital inputs
Description of the input	IEC 61131-2 type 3
Connection method	Push-in connection
Connection technology	2-, 3-, 4-conductor
Number of inputs	4 (with two-channel assignment)
	8 (for single-channel assignment)
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	typ. 4.2 mA

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Digital inputs

Input filter time	1.5 ms
	3 ms (Default)
	5 ms
	15 ms
Cable length	max. 1000 m (200 m from the clock output to the safe input (total based on forward and return path))
Input voltage	24 V DC (via clock outputs T1 and T2 or external supply)
Input voltage range	-3 V DC ... 30.2 V DC
Typical input current per channel	4.2 mA

General

Mounting type	DIN rail
Color	yellow
Net weight	347.6 g
Note on weight specifications	with connectors and bus base module

Axioline potentials

Designation	Axioline F local bus supply (U_{Bus})
Supply voltage	5 V DC (via bus base module)
Current consumption	typ. 280 mA (all inputs set; power supply by U_I of 19.2 V DC to 30.2 V DC)
	max. 310 mA
Designation	Supply for digital input modules (U_I)
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30.2 V DC (including all tolerances, including ripple)
Current consumption	typ. 9 mA (all inputs set; power supply by U_I with 30.2 V DC; without power supply to the sensors via clock supplies T1 and T2)
Protective circuit	Protection against polarity reversal, EMC protective circuit, undervoltage detection

Safety-related characteristic data

Designation	IEC 61508 - High demand
Safety Integrity Level (SIL)	max. 3 (two channel; dependent in parameterization and wiring)
Designation	IEC 61508 - Low demand
Safety Integrity Level (SIL)	max. 3 (two channel; dependent in parameterization and wiring)
Designation	EN ISO 13849
Performance level (PL)	max. e (two channel; dependent in parameterization and wiring)
Category	max. 4 (two channel; dependent in parameterization and wiring)
Designation	EN 62061
Safety Integrity Level Claim Limit (SIL CL)	max. 3 (two channel; dependent in parameterization and wiring)

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Technical data

Standards and Regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Dimensional drawing
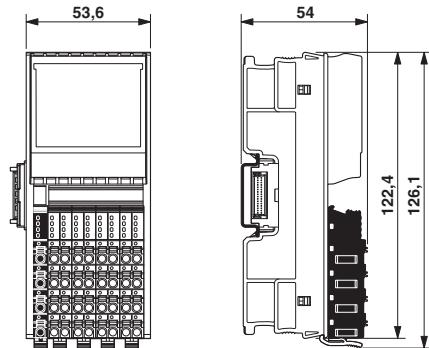
Classifications

eCl@ss

eCl@ss 10.0.1	27242604
eCl@ss 11.0	27242604
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242604
eCl@ss 9.0	27242604

ETIM

ETIM 6.0	EC001599
ETIM 7.0	EC001599

UNSPSC

UNSPSC 13.2	32151602
UNSPSC 18.0	32151602

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Classifications

UNSPSC

UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Approvals

Approvals

Approvals

Functional Safety / UL Listed / cUL Listed / Functional Safety / BSH / DNV GL / cULus Listed

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Ex Approvals

Approval details

Functional Safety		968/EZ 424.05/17

UL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705

cUL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705

Functional Safety		968/EZ 424.05/17

BSH	840

DNV GL	https://approvalfinder.dnvgl.com/	TAA00000DF

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Approvals

cULus Listed	

Accessories

Accessories

Device marking

Insert label - EMT (35X46)R - 0801604

Insert label, for the Axioline F series from Phoenix Contact, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: snapped into marker carrier, lettering field size: 35 x 46 mm, Number of individual labels: 500

Insert label - EMT (35X46)R YE - 0801605

Insert label, for the Axioline F series from Phoenix Contact, Roll, yellow, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: snapped into marker carrier, lettering field size: 35 x 46 mm, Number of individual labels: 500

DIN rail connector

Bus connector - AXL F BS F - 2688129

Axioline F bus base module for housing type F

Terminal marking

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Accessories

Zack marker strip - ZB 20,3 AXL UNPRINTED - 0829579

Zack marker strip for Axioline F (device labeling), in 2 x 20.3 mm pitch, unprinted, 25-section, for individual labeling with B-STIFT 0.8, X-PEN, or CMS-P1-PLOTTER

Zack Marker strip, flat - ZBF 10/5,8 AXL UNPRINTED - 0829580

Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 10.15 mm, lettering field size: 4 of 10.15 x 5 mm and 1 of 5.8 x 5 mm, Number of individual labels: 50