

AXL F LPEDO8/3 1F - Safety module



2702171

<https://www.phoenixcontact.com/us/products/2702171>

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Axioline F, Digital output module, Functional safety, SafetyBridge solution, Digital outputs: 4 (for 2-channel assignment), 8 (for 1-channel assignment), 2 A, degree of protection: IP20

Product description

The safety module is an output module from the Axioline F product range with integrated safety logic designed 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 outputs for two-channel assignment or eight safe digital outputs for single-channel assignment.

Your advantages

- Cost-effective system configuration, as no safety PLC or safe fieldbus system is required
- Flexible use, thanks to compatibility with all bus couplers from the Axioline F range
- 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 EN IEC 62061, SIL 3 in accordance with IEC 61508

Commercial data

Item number	2702171
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN03
Product key	DNA511
Catalog page	Page 269 (C-6-2019)
GTIN	4055626004983
Weight per piece (including packing)	352.9 g
Weight per piece (excluding packing)	222 g
Customs tariff number	85389091
Country of origin	DE

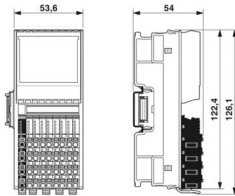
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Technical data

Dimensions

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

Interfaces

Axioline F local bus	
Connection method	Bus base module

System properties

SafetyBridge properties	
Connection to I/O modules	max. 16 (safe digital I/O modules)
Logic memory	30 kByte

Module	
Input address area	48 Byte
Output address area	48 Byte
Required parameter data	1 Byte
Required configuration data	7 Byte

Output data

Digital:	
Output name	Digital outputs
Number of outputs	4 (for 2-channel assignment)
	8 (for 1-channel assignment)
	8
Protective circuit	Overload protection, freewheeling circuit for inductive loads, Discharge circuit for accelerated discharge of capacitive loads
Output voltage	24 V DC
Output current	max. 2 A (per channel)
	max. 1.5 A (per channel according to CUL _{US})
	max. 4 A (per group)

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	max. 3 A (per group according to CUL_{US})
	max. 8 A (Total current of all outputs; Please observe the notes in the user manual.)
	max. 6 A (Total current of all outputs according to CUL_{US})
Maximum output current per channel	2 A
Maximum output current per module / terminal block	8 A
Permissible cable length	max. 1000 m (Forward and return line in total)
Behavior with overload	Affected output is disabled and a diagnostic message is generated.

Product properties

Product type	I/O component
Product family	Axioline F
Application	Functional safety
	SafetyBridge
Type	modular

Electrical properties

Transmission medium	Copper
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Potentials

Protective circuit	Protection against polarity reversal, EMC protective circuit, undervoltage detection
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Potentials: Axioline F local bus supply (U_{BUS})

Supply voltage	5 V DC (via bus base module)
Current draw	max. 280 mA
	typ. 260 mA (all outputs set; supply by U_O of 19.2 V DC ... 30 V DC)

Potentials: Supply for digital output modules (U_O)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	typ. 25 mA (all outputs set; supply from U_O with 30 V DC; without supply to the actuators)

Connection data

Connection technology

Connection name	Axioline F connector
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Conductor connection

Connection method	Spring-cage connection
Conductor cross section rigid	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16

Axioline F connector

Connection method	Spring-cage connection
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Conductor cross section, rigid	0.2 mm² ... 1.5 mm²
Conductor cross section, flexible	0.2 mm² ... 1.5 mm²
Conductor cross section AWG	24 ... 16

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-35 °C ... 60 °C (Mounting position: any)
Degree of protection	IP20
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)
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)

Standards and regulations

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

Mounting type	DIN rail mounting
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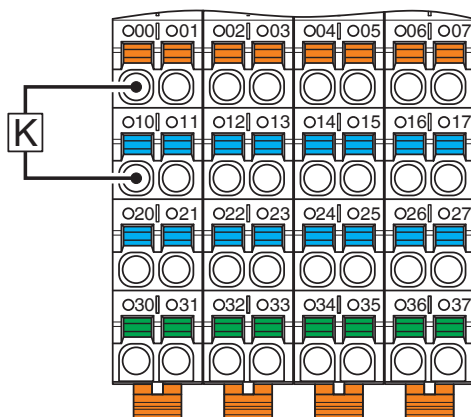
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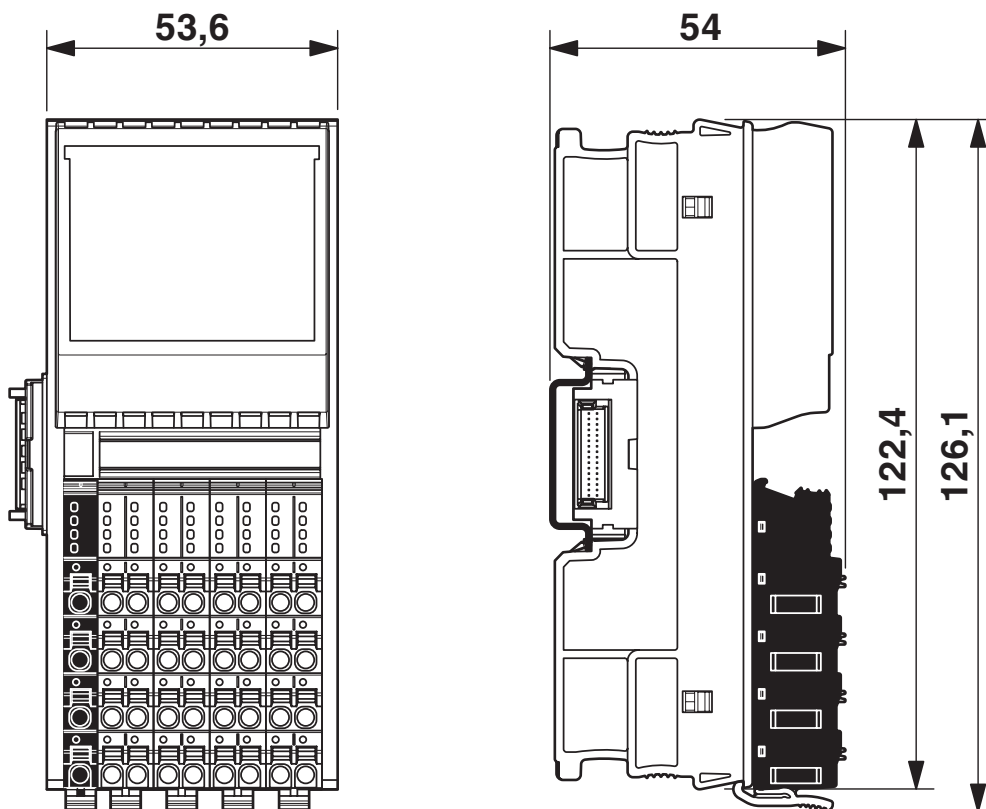
Drawings

Connection diagram



Example connection of a contactor

Dimensional drawing



Dimensions (in mm)

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2702171>

	DNV GL Approval ID: TAA00000DF
	UL Listed Approval ID: FILE E 238705
	cUL Listed Approval ID: FILE E 238705
	BSH Approval ID: 840
	Functional Safety Approval ID: 968/FSP 2449.00/22
	Functional Safety Approval ID: 968/FSP 2449.00/22
	UAE-RoHS Approval ID: 23-02-63243
	cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27242604
ECLASS-12.0	27242604
ECLASS-13.0	27242604

ETIM

ETIM 9.0	EC001599
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UNSPSC

UNSPSC 21.0	32151600
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	c46c2bb2-51c1-41e0-804d-ad04fbcdddc6

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Accessories

AXL F BS F - Bus connector

2688129

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Axioline F bus base module for housing type F



ZB 20,3 AXL UNPRINTED - Zack marker strip

0829579

<https://www.phoenixcontact.com/us/products/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

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

0829580

<https://www.phoenixcontact.com/us/products/0829580>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.15 mm, lettering field size: 4 x 10, 15 x 5 mm, 1 x 5.8 x 5 mm, Number of individual labels: 50

EMT (35X46)R - Insert label

0801604

<https://www.phoenixcontact.com/us/products/0801604>



Insert label, for marking the Axioline F series from Phoenix Contact, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: insert, lettering field size: 35 x 46 mm, Number of individual labels: 500

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EMT (35X46)R YE - Insert label

0801605

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Insert label, for marking the Axioline F series from Phoenix Contact, Roll, yellow, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: insert, lettering field size: 35 x 46 mm, Number of individual labels: 500

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