AXL F LPSDO8/3 1F - Safety module

2702171

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CRA-READY



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; The product is being prepared for compliance with the Cyber Resilience Act (CRA).

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

ELEKTROGERÄTE RÜCKNAHME

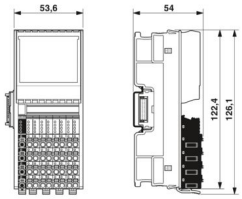
Commercial data

Item number	2702171

Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN03
Product key	DNA511
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

Technical data

Dimensions

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

Notes

Note on application	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Mounting

Mounting type	DIN rail mounting

Material specifications

Color (Housing)	yellow (RAL 1018)
Material	PBT
Flammability rating according to UL 94	V-0 (Housing)

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

Programming data

Input address area	48 Byte
Output address area	48 Byte

Fieldbus data telegram

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)
	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
Behavior with overload	Affected output is disabled and a diagnostic message is generated.
Permissible cable length	max. 1000 m (Forward and return line in total)

Product properties

Product type	I/O component
Product family	Axioline F
Application	Functional safety
	SafetyBridge
Type	modular
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)

Electrical properties

Transmission medium	Copper

Potentials

Protective circuit	Protection against polarity reversal, EMC protective circuit, undervoltage detection

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)
Current consumption	25 mA

Connection data

Connection technology

Connection name	Axioline F connector

Axioline F connector

Connection method	Spring-cage connection
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)

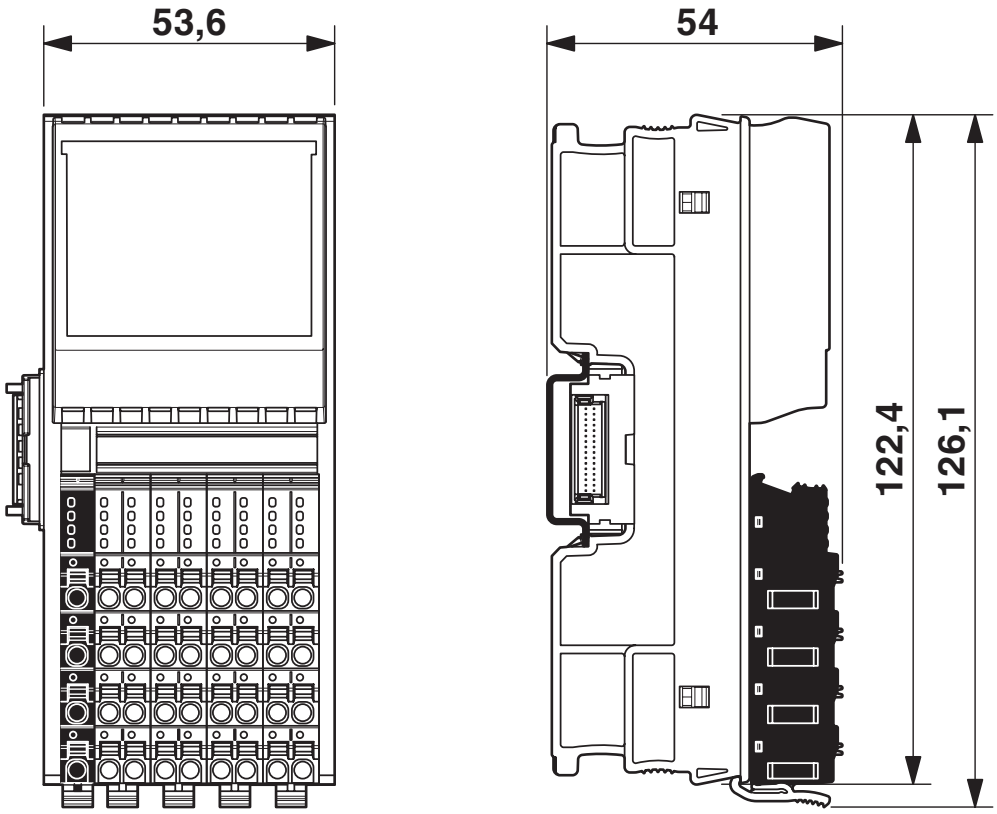
Characteristics

Safety data: EN ISO 13849

Performance level (PL)	max. e (two channel; dependent in parameterization and wiring)

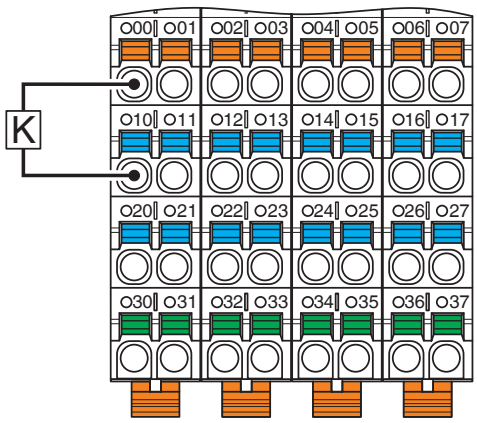
Drawings

Dimensional drawing



Dimensions (in mm)

Connection diagram



Example connection of a contactor

Approvals

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

DNV GL
Approval ID: TAA00000DF

BSH
Approval ID: 840c

cULus Listed
Approval ID: E238705

Functional Safety
Approval ID: 968/FSP 2449.00/22

Classifications

ECLASS

ECLASS-13.0	27242604
ECLASS-15.0	27242604
ECLASS-15.0 ASSET	27250101

ETIM

ETIM 10.0	EC001599

UNSPSC

UNSPSC 21.0	32151600

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

EF3.1 Climate Change

CO2e kg	17.58 kg CO2e

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