

# Safety module - AXL F LPSDO8/3 1F - 2702171

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Safety-related digital output module, IP20 protection, for the SafetyBridge system. The module has four safe digital outputs with two-channel occupancy or 8 safe digital outputs with single-channel occupancy

## 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<sup>®</sup>, EtherNet/IP<sup>™</sup>, 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 SIL 3 according to EN 61508
- ✓ Up to SILCL 3 according to EN 62061
- ✓ Up to cat. 4/PL e according to EN ISO 13849-1



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 004983
GTIN	4055626004983

## Technical data

### Dimensions

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

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## Technical data

### 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

### Interfaces

Designation	Axioline F local bus
No. of channels	1
Connection method	Bus base module

### Digital outputs

Output name	Digital outputs
Connection method	Direct plug-in technology
Connection technology	2, 3-wire
Number of outputs	4 (with two-channel assignment)
	8
Type of protection	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 <sub>US</sub> )
	max. 4 A (per group)
	max. 3 A (per group according to CUL <sub>US</sub> )
	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 <sub>US</sub> )
Maximum output current per channel	2 A
Maximum output current per module / terminal block	8 A

### General

Mounting type	DIN rail
Net weight	222 g
Note on weight specifications	with connectors and bus base module

### Axioline potentials

Designation	Axioline F local bus supply (U <sub>Bus</sub> )
Supply voltage	5 V DC (via bus base module)
Current consumption	typ. 260 mA (all outputs set; power supply by U <sub>O</sub> of 19.2 V DC to 30.2 V DC)
	max. 280 mA
Designation	Supply for digital output modules (U <sub>O</sub> )

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## Technical data

### Axioline potentials

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30.2 V DC (including all tolerances, including ripple)
Current consumption	typ. 25 mA (all outputs set; power supply by U <sub>o</sub> with 30.2 V DC; without power supply to the actuator)
Type of protection	Protection against polarity reversal, EMC protective circuit, undervoltage detection

### SafetyBridge properties

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

### 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)

### Standards and Regulations

Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Approvals

### Approvals

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Approvals

Functional Safety / UL Listed / cUL Listed / Functional Safety / cULus Listed

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Ex Approvals


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### Approval details

## Safety module - AXL F LPSDO8/3 1F - 2702171


### Approvals

Functional Safety		968/EZ 424.05/17
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UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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Functional Safety		968/EZ 424.05/17
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cULus Listed	
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