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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

Why buy this product

- ☐ 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 STK
GTIN	4 055626 066813
GTIN	4055626066813

Technical data

Dimensions

Width	53.6 mm
Height	126.1 mm



Technical data

Dimensions

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

Interfaces

LUESIGNATION	Axioline F local bus (Note: not suitable for use in the Axioline F local bus of the Phoenix Contact AXC 3050 controller)
No. of channels	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-wire
Number of inputs	4 (with two-channel assignment)
	8 (for single-channel assignment)
Input filter time	1.5 ms
Input characteristic curve	IEC 61131-2 type 3
Input voltage	24 V DC (via clock outputs T1 and T2 or external supply)
Input voltage range	-3 V DC 30.2 V DC
Nominal input current at U _{IN}	typ. 4.2 mA
Typical input current per channel	4.2 mA

General

Mounting type	DIN rail
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 $U_{\rm I}$ of 19.2 V DC to 30.2 V DC)
	max. 310 mA
Designation	Supply for digital input modules (U _i)



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. 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)
Type of protection	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)

Standards and Regulations

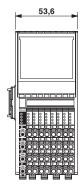
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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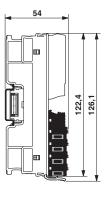
Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Dimensional drawing





Approvals

Approvals



Approvals

Approvals

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

Ex Approvals

Approval details

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

Functional Safety



968/EZ 424.05/17

cULus Listed



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