

AXL SE SSDI8/3 - Safety module



1190012

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Axioline Smart Elements, Digital input module, Functional safety, SafetyBridge technology, Safe digital inputs: 4 (2-channel assignment), 8 (1-channel assignment), 24 V DC, connection technology: 3-conductor, degree of protection: IP20

Product description

You can integrate Axioline Smart Elements into systems with the Smart Element interface. This Smart Element is a safe input module for use in a SafetyBridge system.

Your advantages

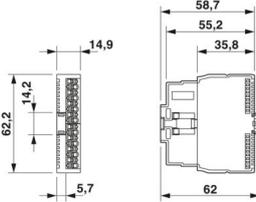
- Up to Cat. 4/PL e in accordance with EN ISO 13849-1, SIL 3 in accordance with EN IEC 62061, SIL 3 in accordance with IEC 61508
- 8 safe inputs for 1-channel assignment
- 4 safe inputs for 2-channel assignment

Commercial data

Item number	1190012
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN03
Product key	DNA821
GTIN	4063151237479
Weight per piece (including packing)	48.43 g
Weight per piece (excluding packing)	36 g
Customs tariff number	85389091
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	14.9 mm
Height	62.2 mm
Depth	62 mm

Notes

Note on application

Note on application	Only for industrial use
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Interfaces

Smart Element interface

Number of interfaces	1
Connection method	Card edge connector
Transmission speed	See system in which you use the Smart Element.

System properties

Module

Input address area	6 Byte
Output address area	5 Byte

Input data

Digital:

Input name	Safe digital inputs
Description of the input	EN 61131-2, type 3
Number of inputs	4 (2-channel assignment)
	8 (1-channel assignment)
Cable length	max. 200 m (200 m from the clock output to the safe input (total based on forward and return path))
Connection method	Push-in connection
Connection technology	3-conductor
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC
Nominal input voltage U_{IN}	24 V DC

Nominal input current at U_{IN}	typ. 2.7 mA
Input filter time	1.5 ms
	3 ms (Default)
	5 ms
	15 ms
Protective circuit	Polarity reversal protection of the inputs; Diode

Product properties

Product type	I/O component
Product family	Axiline Smart Elements
Application	Functional safety
	SafetyBridge technology
Type	modular
Mounting position	any
Operating mode	SafetyBridge

Insulation characteristics

Overvoltage category	II (IEC 60664-1)
Pollution degree	2 (EN 60664-1)

Electrical properties

Maximum power dissipation for nominal condition	typ. 520 mW
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Potentials

Protection	external fusing via the system in which the Smart Element is used
Protective circuit	Surge protection of the supply voltage; electronic (35 V, 0.5 s)
	Polarity reversal protection of the supply voltage; via the system in which the Smart Element is used

Potentials: Axiline F local bus supply (U_{BUS})

Supply voltage	5 V DC (via bus base module)
Current draw	max. 140 mA (at U_{BUS} 5 V DC)
	typ. 101 mA (at U_{BUS} 5 V DC)

Potentials: Communications power supply of the Smart Elements (U_{SE})

Supply voltage	using card edge connectors
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Potentials: I/O supply (U_P)

Supply voltage	24 V DC (using card edge connectors)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 12 mA (Power supply from U_P with 30 V DC, all inputs set, without power supply to the sensors via clock supplies OUT_T1 and OUT_T2)
	typ. 9 mA (Power supply from U_P with 24 V DC, all inputs set, without power supply to the sensors via clock supplies OUT_T1 and OUT_T2)

Current consumption	min. 8 mA (Power supply from U_p with 19.2 V DC, all inputs set, without power supply to the sensors via clock supplies OUT_T1 and OUT_T2)
Power consumption	max. 360 mW
	min. 154 mW

Connection data

Connection technology

Connection name	I/O
Note on the connection method	Note the specification in the section Conductor cross-sections, and stripping and insertion lengths.

Conductor connection

Connection method	Push-in connection
Conductor cross-section rigid	0.25 mm ² ... 1.5 mm ²
Conductor cross-section flexible	0.25 mm ² ... 1.5 mm ²
Conductor cross-section AWG	24 ... 16
Stripping length	8 mm

I/O

Connection method	Push-in connection
Note on the connection method	Note the specification in the section Conductor cross-sections, and stripping and insertion lengths.
Conductor cross-section, rigid	0.25 mm ² ... 1.5 mm ²
Conductor cross-section, flexible	0.25 mm ² ... 1.5 mm ²
Conductor cross-section AWG	24 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
Degree of protection at installation location	min. IP54
Air pressure (operation)	70 kPa ... 108 kPa
Air pressure (storage/transport)	66 kPa ... 108 kPa
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Air clearances and creepage distances

Air clearances and creepage distances	IEC 60664-1
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Mounting

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1190012

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Mounting type	Plug-in mounting (Smart Element slot)
Mounting position	any

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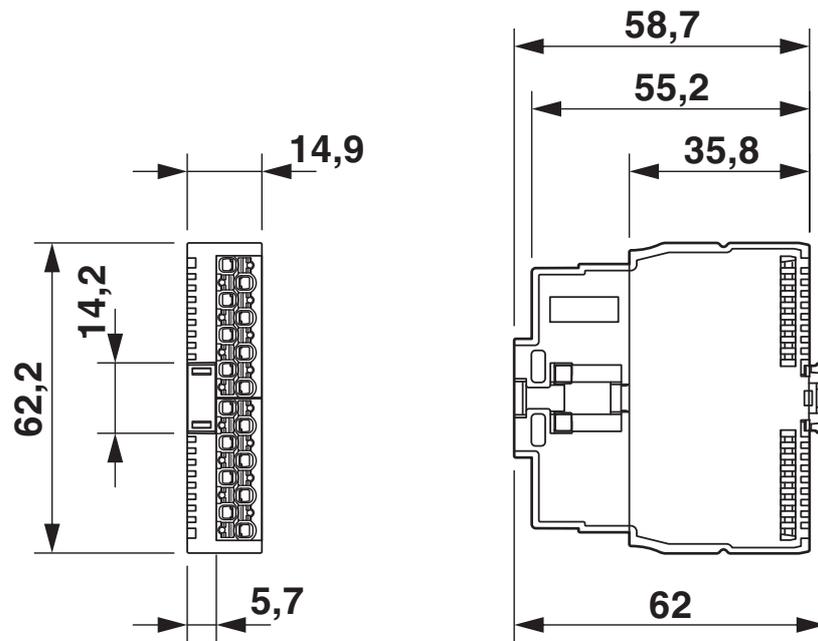
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Drawings

Dimensional drawing



Dimensions

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Approvals

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cULus Listed

Approval ID: E238705



Functional Safety

Approval ID: 968/FSP 2449.00/22

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1190012

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Classifications

ECLASS

ECLASS-13.0	27242604
ECLASS-15.0 ASSET	27250101
ECLASS-15.0	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	2913726b-1460-498d-a2f7-65e9937eae06

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