

# AXL SE SSDI8/3 - Safety module



1190012

<https://www.phoenixcontact.com/us/products/1190012>

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Axiline 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 Axiline 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 CEI 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

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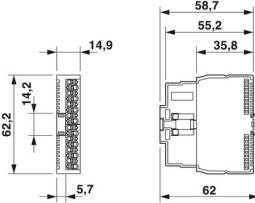
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## Technical data

### Dimensions

Dimensional drawing		
Width		14.9 mm
Height		62.2 mm
Depth		62 mm

### 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

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

## Insulation characteristics

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

## Electrical properties

### 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: Axioline 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

# AXL SE SSDI8/3 - Safety module



1190012

<https://www.phoenixcontact.com/us/products/1190012>

## 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 <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
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 <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
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

Mounting type	Smart Element slot
Mounting position	any

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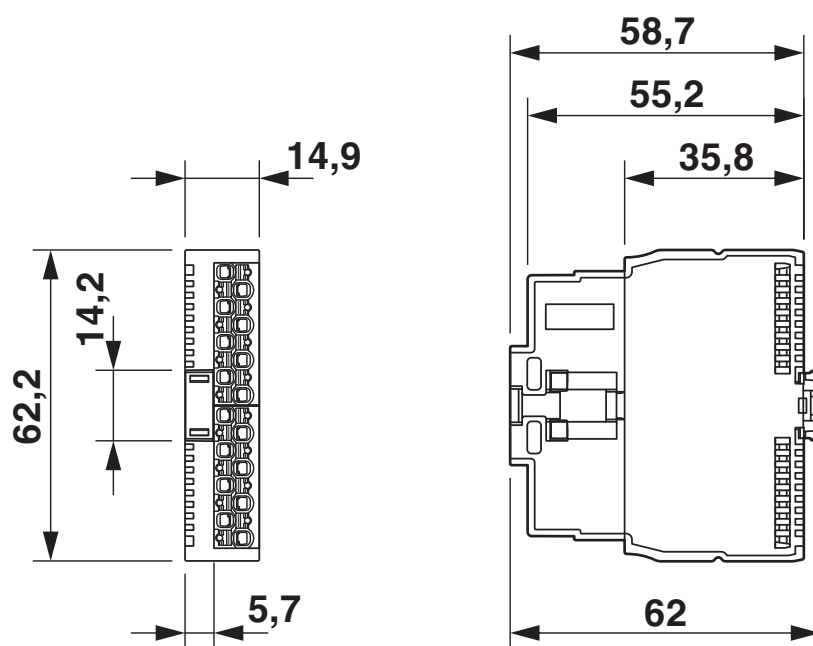
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## Drawings

Dimensional drawing



Dimensions

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1190012>

**UL Listed**  
Approval ID: FILE E 238705

**Functional Safety**  
Approval ID: 968/FSP 2449.00/22

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**cUL Listed**  
Approval ID: FILE E 238705

**cULus Listed**

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1190012

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## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC001599
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### UNSPSC

UNSPSC 21.0	32151600
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## Environmental product compliance

REACH SVHC	Lead 7439-92-1
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## Mandatory accessories

### AXL F BP SE4 - Module carrier

1088135

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Axioline F, Backplane, 4 slots for Axioline Smart Elements, transmission speed in the local bus: 100 Mbps, degree of protection: IP20



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### AXL F BP SE6 - Module carrier

1088136

<https://www.phoenixcontact.com/us/products/1088136>

Axioline F, Backplane, 6 slots for Axioline Smart Elements, transmission speed in the local bus: 100 Mbps, degree of protection: IP20



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## Accessories

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## SZS 0,4X2,5 VDE - Screwdriver

1205037

<https://www.phoenixcontact.com/us/products/1205037>



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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## CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/us/products/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm<sup>2</sup> ... 6.0 mm<sup>2</sup>, lateral entry, trapezoidal crimp

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## CRIMPFOX DUO 10 - Crimping pliers

1031721

<https://www.phoenixcontact.com/us/products/1031721>



Crimping pliers, contact connection type: Insulated and uninsulated ferrules, standards/specifications: DIN 46228-1, DIN 46228-4, UL 486F, form A, E, F, min. cross section: 0.14 mm<sup>2</sup>, max. cross section: 10 mm<sup>2</sup>, for TWIN ferrules up to 2 x 4 mm<sup>2</sup>, automatic cross section adjustment, rotating die, lateral and frontal insertion, compression: Trapezoidal crimp, black/green

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## CRIMPFOX 10T-F - Crimping pliers

1134913

<https://www.phoenixcontact.com/us/products/1134913>



Crimping pliers, contact connection type: Insulated and uninsulated ferrules, standards/specifications: DIN 46228-1, DIN 46228-4, min. cross section: 0.14 mm<sup>2</sup>, max. cross section: 10 mm<sup>2</sup>, For TWIN ferrules up to 2 x 4 mm<sup>2</sup>, automatic cross section adjustment, frontal insertion, compression: Trapezoidal crimp, black

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## MM-TML (EX4,2)R C1 TR/BK - Label

0803979

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Label, Roll, transparent/black, unlabeled, can be labeled with: THERMOFOX, THERMOMARK GO, THERMOMARK GO.K, mounting type: adhesive, lettering field size: continuous x 3.2 mm

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## SK 5,0 WH:REEL - Marker strip

0805221

<https://www.phoenixcontact.com/us/products/0805221>



Marker strip, 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: adhesive, lettering field size: continuous x 5 mm, Number of individual labels: 90000

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1190012

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## UM6M-TM (5X12) - Marker for terminal blocks

0830928

<https://www.phoenixcontact.com/us/products/0830928>



Marker for terminal blocks, Strip, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5 x 12 mm, Number of individual labels: 24

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## UCT6M-TM 5 - Marker for terminal blocks

0830756

<https://www.phoenixcontact.com/us/products/0830756>



Marker for terminal blocks, for marking ABB terminal blocks from the SNK series, Sheet, white, unlabeled, can be labeled with: THERMOMARK CARD, THERMOMARK CARD 2.0, THERMOMARK PRIME, BLUEMARK ID, BLUEMARK ID COLOR, TOPMARK LASER, TOPMARK NEO, mounting type: snapped, for terminal block width: 5.2 mm, lettering field size: 4.17 x 11.3 mm

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