

AXL SE DI16/1 - Digital module



1088127

<https://www.phoenixcontact.com/us/products/1088127>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Axioline Smart Elements, Digital input module, Digital inputs: 16, 24 V DC, connection technology: 1-conductor, degree of protection: IP20

Product description

You can integrate Axioline Smart Elements into systems with the Smart Element interface. This Smart Element detects digital signals.

Your advantages

- 16 digital inputs in accordance with EN 61131-2 type 1 and type 3
- Nominal voltage: 24 V DC
- Nominal current: 2.4 mA
- Connection of sensors in 1-conductor technology
- Filter time of < 1 ms
- Device rating plate stored

Commercial data

Item number	1088127
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR05
Product key	DRIB31
GTIN	4055626886374
Weight per piece (including packing)	37.5 g
Weight per piece (excluding packing)	35 g
Customs tariff number	85389091
Country of origin	DE

AXL SE DI16/1 - Digital module

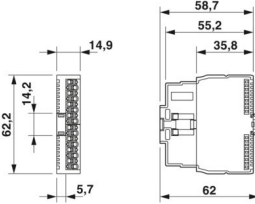
1088127

<https://www.phoenixcontact.com/us/products/1088127>



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
---------------------	-------------------------

Interfaces

Smart Element interface

Number of interfaces	1
Connection method	Card edge connector
Transmission speed	See system in which you use the Smart Element.
Start time until ready to operate	< 500 ms

System properties

Module

ID code (hex)	none
Process data channel	16 bit
Input address area	2 Byte
Output address area	0 Byte
Required parameter data	1 Byte
Required configuration data	6 Byte

Input data

Digital:

Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3
Number of inputs	16
Connection method	Push-in connection
Connection technology	1-conductor
Input voltage range "0" signal	-3 V DC ... 5 V DC

AXL SE DI16/1 - Digital module



1088127

<https://www.phoenixcontact.com/us/products/1088127>

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}	2.4 mA
Input filter time	< 1 ms
Protective circuit	Polarity reversal protection of the inputs; Diode

Product properties

Product type	I/O component
Product family	Axioline Smart Elements
Type	modular
Mounting position	See the system in which the Smart Element is used.

Insulation characteristics

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

Electrical properties

Maximum power dissipation for nominal condition	1.4 W
---	-------

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

Supply voltage	using card edge connectors
----------------	----------------------------

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. 17 mA
Current consumption	min. 14 mA (without connected peripherals)
Protective circuit	Surge protection; See the system in which the Smart Element is used. Reverse polarity protection; Polarity protection diode

Electrical isolation/isolation of the voltage ranges

Test voltage: Communications supply / 24 V supply (I/O)	500 V AC, 50 Hz, 1 min
Test voltage: Communications supply / functional ground	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply (I/O) / functional ground	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	I/O
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline Smart Elements" user manual.

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

AXL SE DI16/1 - Digital module



1088127

<https://www.phoenixcontact.com/us/products/1088127>

Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Stripping length	8 mm

I/O

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axiline Smart Elements" user manual.
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
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
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)
------------------	---------------------------------------

Mounting

Mounting type	Smart Element slot
Mounting position	See the system in which the Smart Element is used.

AXL SE DI16/1 - Digital module

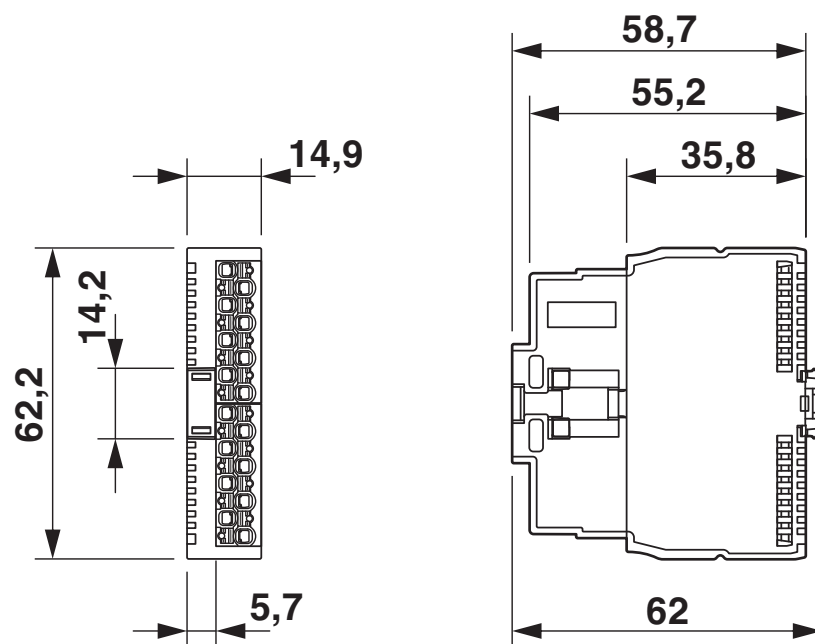
1088127

<https://www.phoenixcontact.com/us/products/1088127>



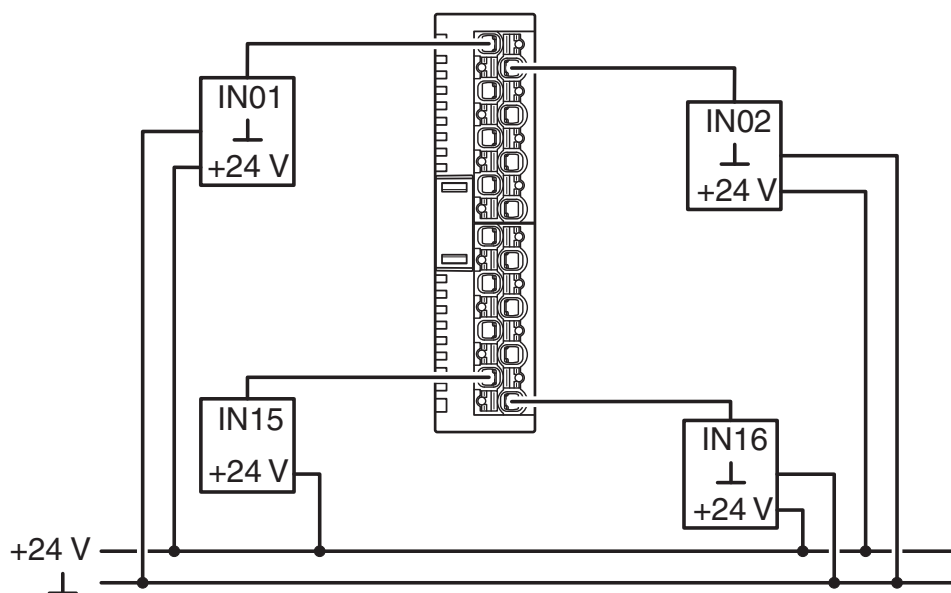
Drawings

Dimensional drawing



Dimensions

Connection diagram



Connection in 1-conductor technology

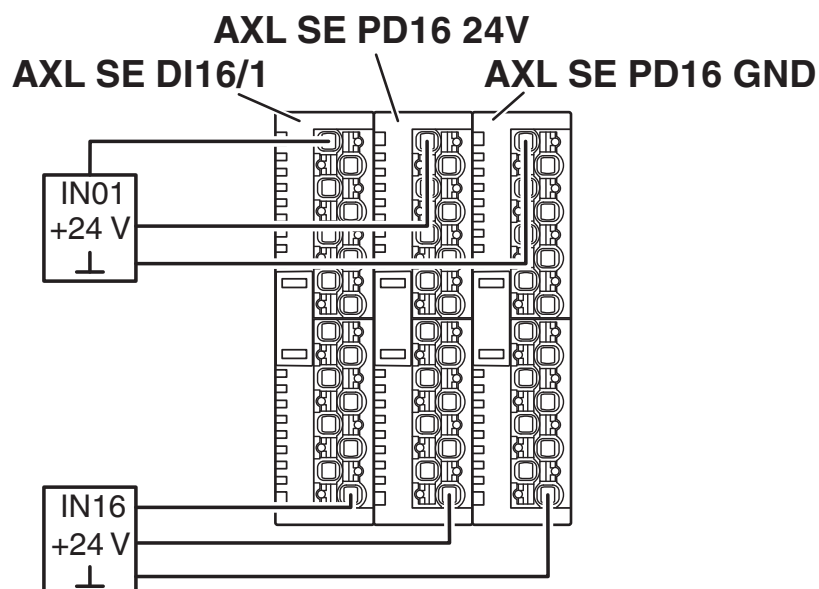
AXL SE DI16/1 - Digital module

1088127

<https://www.phoenixcontact.com/us/products/1088127>

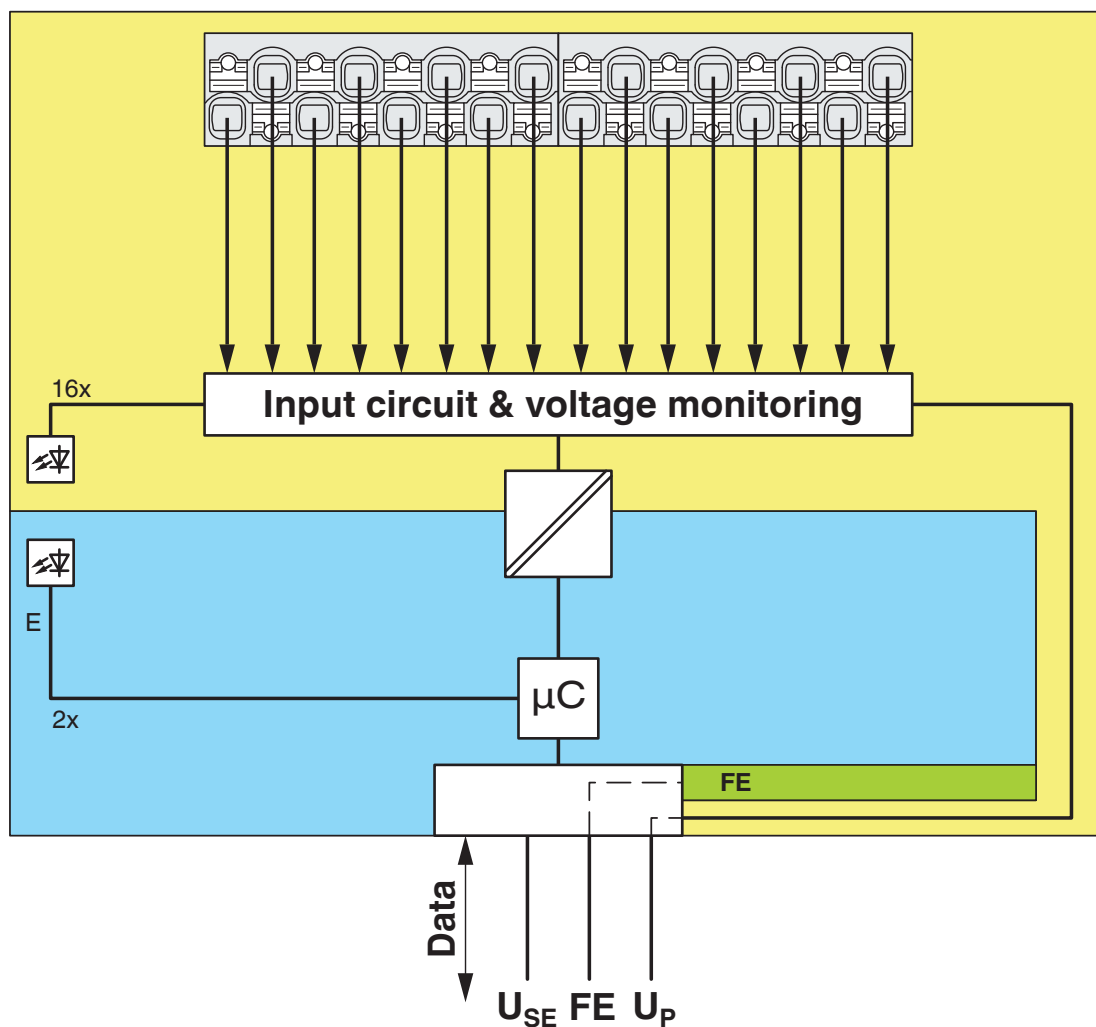


Connection diagram



Connection in 3-conductor technology when using AXL SE PD ... (see data sheet)

Block diagram



Internal wiring of the terminal points

AXL SE DI16/1 - Digital module



1088127

<https://www.phoenixcontact.com/us/products/1088127>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1088127>

DNV Approval ID: TAA00003B0
LR Approval ID: LR23402057TA
RINA Approval ID: ELE263623XG
ABS Approval ID: 24-2510075-PDA
cULus Listed Approval ID: E238705

AXL SE DI16/1 - Digital module



1088127

<https://www.phoenixcontact.com/us/products/1088127>

Classifications

ECLASS

ECLASS-13.0	27242604
-------------	----------

ETIM

ETIM 9.0	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	79c16621-7b64-4b6d-8442-afffe19844d2
EF3.0 Climate Change	
CO2e kg	1.417 kg CO2e

Phoenix Contact 2025 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com