AXL SE DI8/2 EA - Digital module

1398502

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CRA-READY



Axioline Smart Elements, Digital input module, Digital inputs: 8, 24 V DC, 19 V ... 29 V, connection technology: 2-conductor, in accordance with IEC 61850-3, degree of protection: IP20; The product is being prepared for compliance with the Cyber Resilience Act (CRA).

Product description

You can integrate Axioline Smart Elements into systems with the Smart Element interface. The Smart Element acquires digital DC voltage signals in the low-voltage range. The proven in use optocouplers enable the safe electrical isolation of voltage circuits.

Your advantages

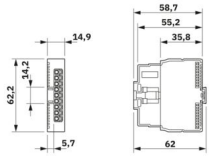
- 8 digital inputs with common ground connection
- Signal voltage: 24 V DC
- Ambient temperature during operation from -40°C ... 70°C
- Satisfies environmental and EMC conditions in accordance with IEC 61850-3
- Device rating plate stored

Commercial data

Item number	1398502
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR05
Product key	DRMBAB
GTIN	4063151976064
Weight per piece (including packing)	36.4 g
Weight per piece (excluding packing)	33.8 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	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Mounting

Mounting type	Plug-in mounting (Smart Element slot)
Mounting position	See the system in which the Smart Element is used.

Material specifications

Color (Housing)	gray (RAL 7042)

Interfaces

Smart Element interface

Number of interfaces	1
Connection method	Card edge connector
Start time until ready to operate	< 500 ms

System properties

Programming data

Process data channel	16 bit
Input address area	1 Byte
Output address area	0 Byte

Input data

Digital:

Input name	Digital inputs
Number of inputs	8
Connection method	Push-in connection

Connection technology	2-conductor
Input voltage range "0" signal	0 V DC ... 8 V DC
Input voltage range "1" signal	15 V ... 32 V
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	1.8 mA
Process data update	typ. 320 µs
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.
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)
	in accordance with IEC 61850-3

Insulation characteristics

Overvoltage category	III (IEC 61010-2-201/EN 61010-2-201)
Pollution degree	2 (IEC 61010-2-201/EN IEC 61010-2-201)

Electrical properties

Maximum power dissipation for nominal condition	max. 0.6 W

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

Supply voltage	using card edge connectors

Electrical isolation/isolation of the voltage ranges

Test voltage: Supply logic / digital input	2.5 kV
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
Test voltage: Digital input/digital input	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.

I/O

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross-sections in the “Axioline Smart Elements” user manual.
Conductor cross-section, rigid	0.2 mm² ... 1.5 mm²
Conductor cross-section, flexible	0.2 mm² ... 1.5 mm²
Conductor cross-section AWG	24 ... 16

Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.2 mm² ... 0.75 mm²
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.2 mm² ... 1.5 mm²
	0.2 mm² ... 1.5 mm²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.2 mm² ... 0.75 mm²
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °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)

Mechanical test

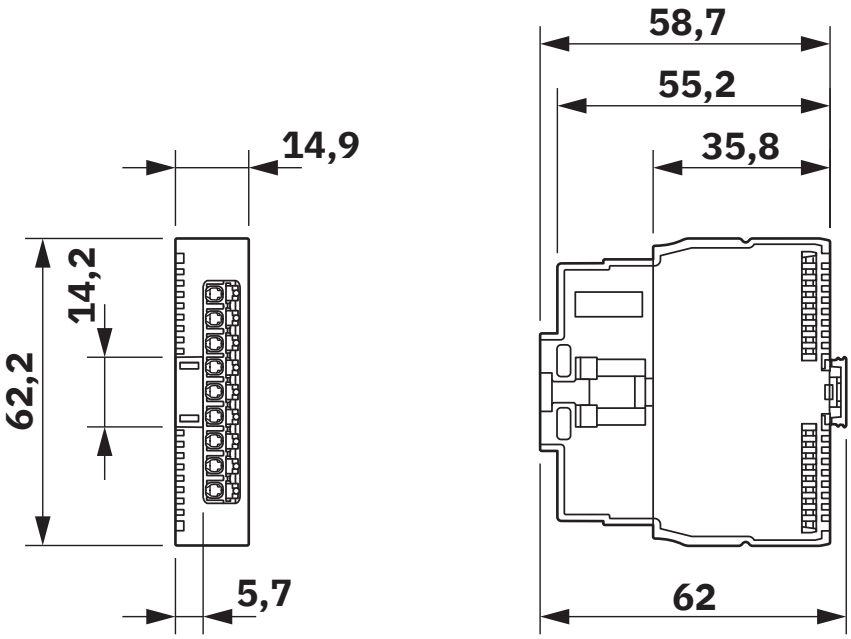
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	1g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	30g
Continuous shock in accordance with EN 60068-2-27/IEC 60068-2-27	10g
Seismic events EN 60255-21-3/IEC 60255-21-3	1g horizontal, 0.5g vertical

Standards and regulations

Protection class	II (IEC 61140, EN 61140, VDE 0140-1)

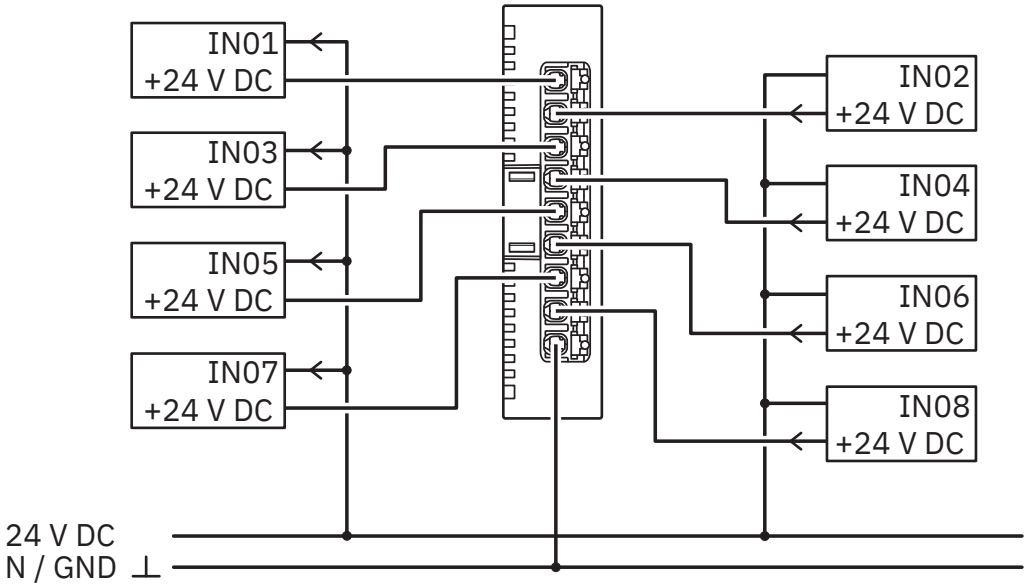
Drawings

Dimensional drawing



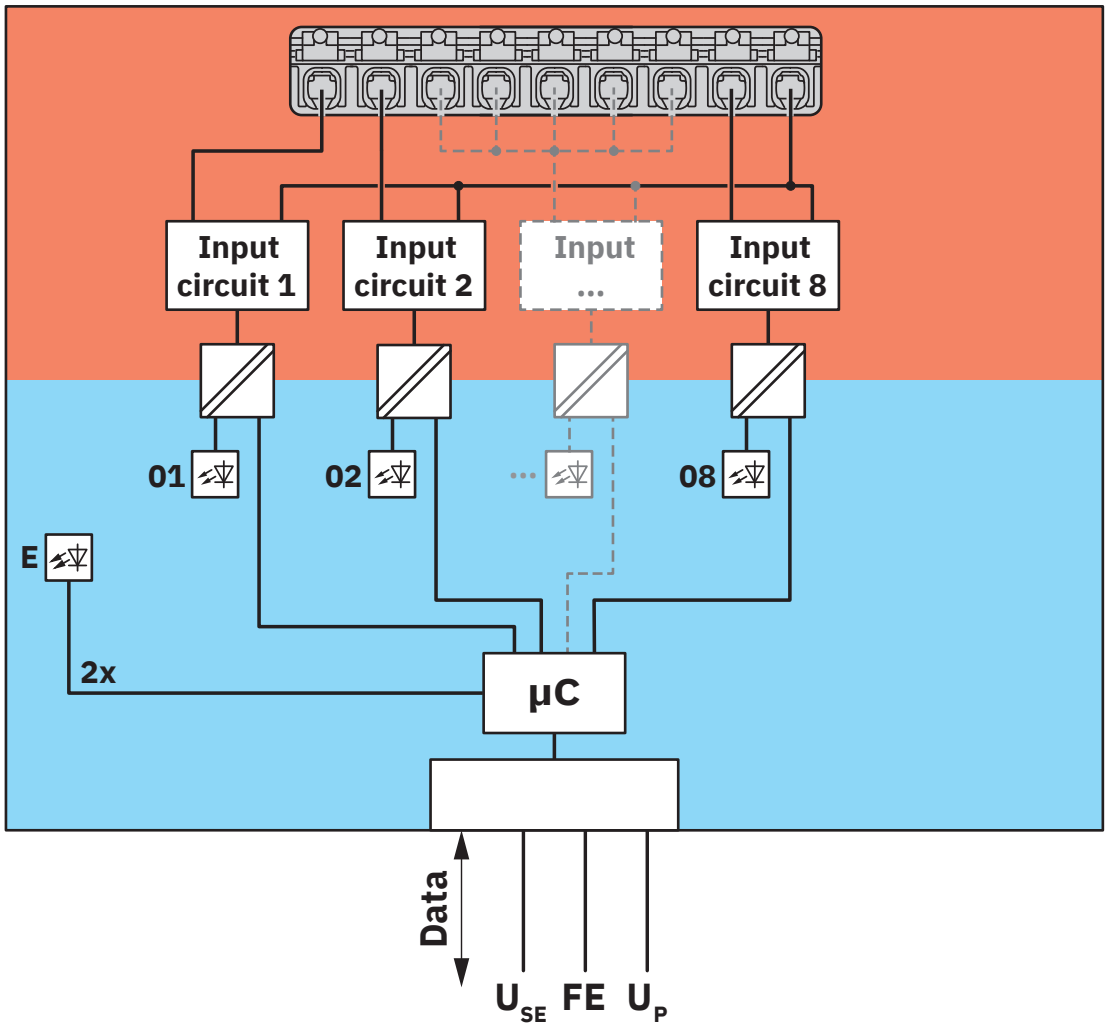
Dimensions (in mm)

Connection diagram



Connection in 2-conductor technology

Block diagram



Internal wiring of the terminal points

Classifications

ECLASS

ECLASS-13.0	27242604
ECLASS-15.0	27242604

ETIM

ETIM 10.0	EC001599

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)

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