AXL P DI16 NAM 1F - Digital module

1052416

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Axioline P, Digital input module, Digital inputs: 16 (NAMUR), 8 V DC, connection technology: 2-conductor, NAMUR functionality, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline P connectors

Product description

The module is an Axioline P I/O module for use in the Axioline P modular I/O system. The module is a modular I/O device that can be affixed to the Axioline P local bus, to communicate I/O data up to the Axioline P bus coupler, which forms the head of the station. The digital input module with NAMUR capabilities collects digital input signals and supports NAMUR proximity and close contact switches and makes this information available to the bus coupler through the Axioline P local bus. The module is fully hot-swappable and may be removed while under power.

Your advantages

- 16 NAMUR digital input signals for NAMUR proximity sensors according to EN 60947-5-6
- Open circuit contacts
- Switch contacts with resistance circuit in accordance with IEC/EN 60947-5-6
- Connection of sensors in 2-conductor technology
- Can be used under extreme ambient conditions
- Temperature range: -40 °C ... +70 °C
- Hot-swappable

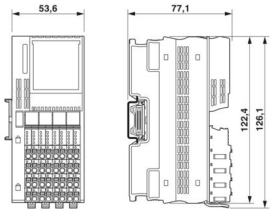
Commercial data

Item number	1052416
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DRIP31
Product key	DRIP31

GTIN	4055626676623
Weight per piece (including packing)	380 g
Weight per piece (excluding packing)	276 g
Customs tariff number	85389099
Country of origin	US

Technical data

Dimensions

Dimensional drawing	
Width	53.6 mm
Height	126.1 mm
Depth	77.14 mm
Note on dimensions	The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

Notes

Note on application

Note on application	Only for industrial use

Utilization restriction

CCCex note	Use in potentially explosive areas is not permitted in China.

Mounting

Mounting type	DIN rail mounting
Mounting position	any (no temperature derating)

Material specifications

Color (Housing)	gray (RAL 7042)

Interfaces

Axioline P local bus

Number of interfaces	2
Connection method	Bus base module
Transmission speed	100 Mbps

System properties

Programming data

Input address area	2 Byte (Firmware 1.00)
	4 Byte (Firmware 1.03 or later)
Output address area	0 Byte

Input data

Digital:

Input name	Digital inputs
Description of the input	NAMUR enabled digital input signals
Number of inputs	16 (NAMUR)
Connection method	Push-in connection
Connection technology	2-conductor
Nominal input voltage U_{IN}	8.2 V DC
Process data update	1.2 ms
Protective circuit	Polarity reversal protection of the inputs

Product properties

Product type	I/O component
Product family	Axioline P
Type	block modular
Mounting position	any (no temperature derating)
Scope of supply	including bus base module and Axioline P connectors
Special properties	NAMUR functionality

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	3.17 W

Potentials: Supply voltage (U_L)

Supply voltage	24 V DC (via bus base module)
Supply voltage range	19.2 V DC ... 30 V DC
Current draw	max. 130 mA (via bus base module)
	typ. 94 mA (via bus base module)
Protective circuit	Surge protection; electronic (35 V, 0.5 s)
	Reverse polarity protection; Polarity protection diode
	Transient protection; Suppressor diode

Potentials: Axioline P local bus supply (U_{Bus})

Supply voltage	5 V DC (via bus base module)
Current draw	max. 135 mA
	typ. 110 mA

Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply of the local bus (U_{Bus}) / functional ground	500 V AC, 60 Hz, 1 min
Test voltage: 5 V supply of the local bus (U_{Bus}) / digital inputs	500 V AC, 60 Hz, 1 min
Test voltage: 24 V supply (I/O) / functional ground	500 V AC, 60 Hz, 1 min
Test voltage: 24 V supply (I/O) / digital inputs	500 V AC, 60 Hz, 1 min
Test voltage: Digital inputs / functional ground	500 V AC, 60 Hz, 1 min

Connection data

Connection technology

Connection name	Axioline P connector
Note on the connection method	Please observe the information provided on conductor cross-sections in the “Axioline P: System and installation” user manual.

Axioline P connector

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross-sections in the “Axioline P: System and installation” 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
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 2000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 2000 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	5g
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

Standards and regulations

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

Approvals

ATEX

Identification	II 3G Ex ec IIC T4 Gc
Certificate	DEMKO 20 ATEX 2334X

IECEx

Identification	Ex ec IIC T4 Gc
Certificate	IECEx UL 20.0002X

UKCA Ex (UKEX)

Identification	II 3G Ex ec IIC T4 Gc
Certificate	PxCAI22UKEx1052416X

UL, USA/Canada

Identification	cULus
Certificate	E238705

UL Ex, USA / Canada

Identification	Class I, Division 2, Groups A, B, C, D, T4
	Class I, Zone 2, IIC T4
Certificate	E196811

CCC / China-Ex

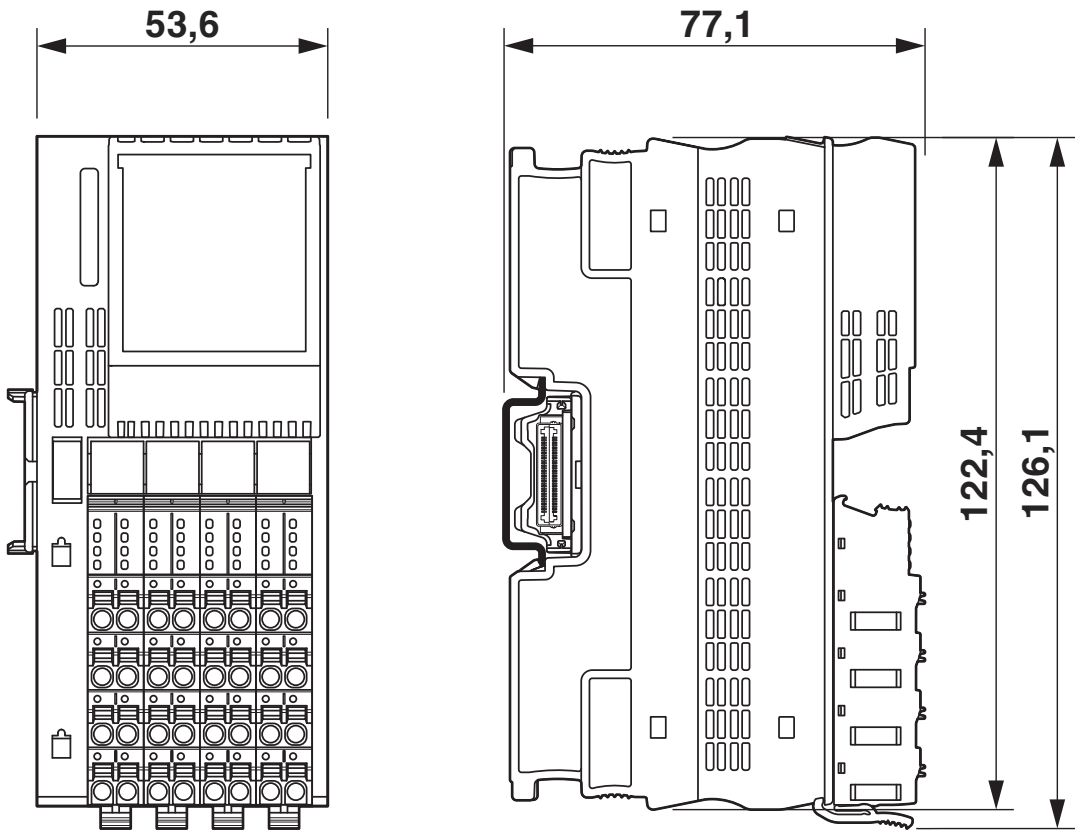
Identification	Ex ec IIC T4 Gc

Ex data

UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D T4 Class I, Zone 2, IIC T4

Drawings

Dimensional drawing



Dimensional drawing

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/1052416

cULus Listed
Approval ID: E238705

IECEx
Approval ID: IECEx UL 20.0002X

cUL Listed
Approval ID: E196811

UL Listed
Approval ID: E196811

ATEX
Approval ID: DEMKO 20 ATEX 2334X

CCC
Approval ID: 2025122309122350

cULus Listed
Approval ID: E196811

Classifications

ECLASS

ECLASS-13.0	27242604
ECLASS-15.0	27242604

ETIM

ETIM 10.0	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-25
	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	57795b24-39a0-4e4c-8f8e-6cd546b050bf

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