

Analog module - AXL F EX IS AI8 HART XC 1F



1052432

<https://www.phoenixcontact.com/pc/products/1052432>

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Axioline F, Analog input module, Active analog inputs: 8 (HART), 4 mA ... 20 mA, connection technology: 2-conductor, transmission speed in the local bus: 100 Mbps, Extreme conditions version, Intrinsically safe, degree of protection: IP20, including bus base module and Axioline F connectors

Product Description

The module is an Axioline F I/O module for use in the Axioline F modular I/O system. The module is a modular I/O device that can be affixed to the Axioline F local bus, to communicate I/O data up to the Axioline F controller or bus coupler, which forms the head of the station. As an intrinsic safety I/O module, this device allows direct connection from intrinsically safe field I/O to the terminals of the module. The analog input I/O module with HART capabilities collects analog input and HART data from the field I/O terminals and makes this information available to the controller / bus coupler through the Axioline F local bus. The active analog input module allows the connection of up to eight HART enabled, passive analog input signals.

Your advantages

- Active analog input module
- Sources power for up to 8 HART enabled, passive analog input signals
- Cyclic access to PV, SV, TV, QV, and Loop Current
- Current range: 4 mA ... 20 mA
- Intrinsically safe analog inputs with connection to Zone 1, Zone 0 or Division 1
- Can be used under extreme ambient conditions
- Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)

Commercial Data

Item number	1052432
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	DRI2E7
GTIN	4055626676715
Weight per Piece (including packing)	391.4 g
Weight per Piece (excluding packing)	380 g
Customs tariff number	85389099
Country of origin	US

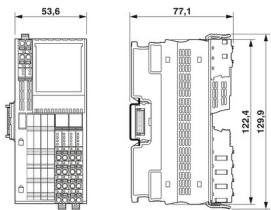
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Technical Data

Dimensions

Dimensional drawing	
Width	53.6 mm
Height	129.9 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

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Utilization restriction

CCCEX note	Use in potentially explosive areas is not permitted in China.
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Material specifications

Color	traffic grey A RAL 7042
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Interfaces

Axioline F local bus

No. of channels	2
Connection method	Bus base module
Transmission speed	100 Mbps

System properties

Module

Input address area	48 Byte
Output address area	0 Byte
Required parameter data	27 Byte
Required configuration data	6 Byte

Input data

Analog

Input name	Active analog inputs
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Description of the input	HART enabled, passive analog input signals
Number of inputs	8 (HART)
Connection method	Push-in connection
Connection technology	2-conductor
Note regarding the connection technology	shielded, twisted pair
Current input signal	4 mA ... 20 mA

Product properties

Type	block modular
Product type	I/O component
Mounting position	any (no temperature derating)
Scope of delivery	including bus base module and Axioline F connectors

Electrical properties

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

Supply voltage	5 V DC (via bus base module)
Current draw	max. 60 mA typ. 40 mA

Potentials: Supply for analog modules (U_A)

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 240 mA

Connection data

Connection technology

Connection name	Axioline F connector
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual.

Conductor connection

Connection method	Push-in connection
Conductor cross section solid	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16
Stripping length	8 mm

Axioline F connector

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline F: system and installation" user manual.
Conductor cross section, rigid	0.2 mm ² ... 1.5 mm ²
Conductor cross section, flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16
Stripping length	8 mm

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Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (Standard)
	-40 °C ... 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.)
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)
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Approval data

ATEX

Identification	II 3(1) G Ex ec [ia Ga] IIC T4 Gc II (1) D [Ex ia Da] IIIC
Certificate	DEMKO 20 ATEX 2370X

IECEX

Identification	Ex ec [ia Ga] IIC T4 Gc [Ex ia Da] IIIC
Certificate	IECEX UL 20.0044X

UKCA Ex (UKEX)

Identification	II 3(1) G Ex ec [ia Ga] IIC T4 Gc II (1) D [Ex ia Da] IIIC
Certificate	UL22UKEX2508X

Ex data

UL, USA / Canada	Ind. Cont. Eq. (E238705) also Listed Ind. Cont. Eq. for haz. loc. E196811 Install in: Class I, Div. 2, Groups A, B, C, D T4 Intrinsically safe outputs for: Class I, Groups A, B, C, D; Class II, Groups E, F, G; Class III; [Ex ia] Haz loc Class I, Zone 2, AEx ec [ia Ga] IIC T4 Gc [AEx ia Da] IIIC Ex ec [ia Ga] IIC T4 Gc [Ex ia Da] IIIC
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Mounting

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

Ex data

Safety data

Max. output voltage U_o	24.8 V
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Max. output current I_o	85.8 mA
Max. output power P_o	532 mW
Safety-related maximum voltage U_m	250 V
A, B / IIC ((A, B, or IIC)): Max. external inductivity L_o / Max. external capacitance C_o	/ 0.113 μ F
C/IIB, IIIC ((C, IIB, or IIIC)): Max. external inductivity L_o / Max. external capacitance C_o	/ 0.86 μ F
D/IIA, E, F, G, Class III ((D, E, F, G, Class III, or IIA)): Max. external inductivity L_o / Max. external capacitance C_o	/ 3.05 μ F
A, B / IIC ((A, B, or IIC)): Max. external inductivity L_o / Max. external capacitance C_o	2.95 mH
C/IIB, IIIC ((C, IIB, or IIIC)): Max. external inductivity L_o / Max. external capacitance C_o	18.95 mH
D/IIA, E, F, G, Class III ((D, E, F, G, Class III, or IIA)): Max. external inductivity L_o / Max. external capacitance C_o	30.95 mH

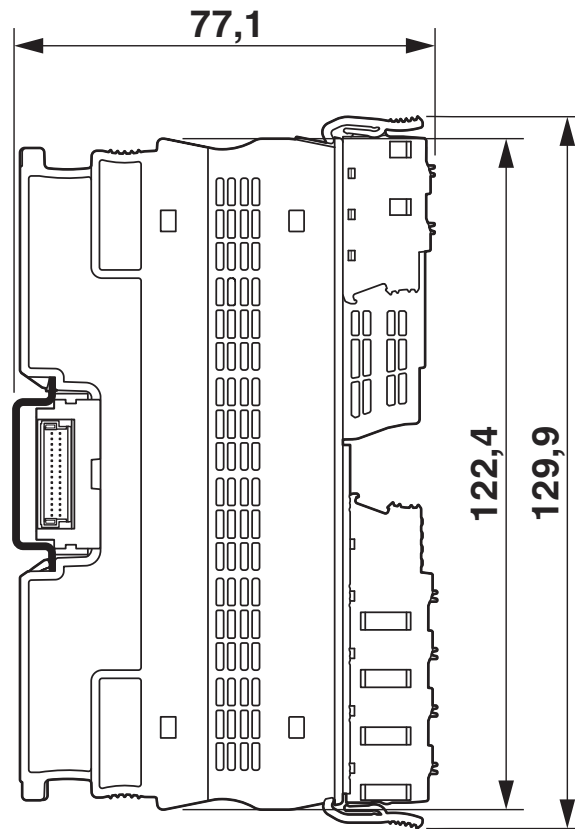
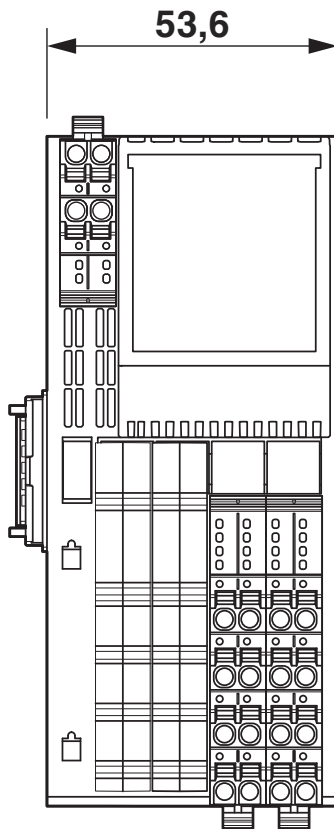
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Drawings

Dimensional drawing



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Approvals



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705



IECEX

Approval ID: IECEX UL 20.0044X



cUL Listed

Approval ID: FILE E 196811



UL Listed

Approval ID: FILE E 196811



ATEX

Approval ID: DEMKO 20 ATEX 2370X



CCC

Approval ID: 2021122316114727

cULus Listed

cULus Listed

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Classifications

ECLASS

ECLASS-9.0	27242601
ECLASS-10.0.1	27242601
ECLASS-11.0	27242601
ECLASS-12.0	27242601

ETIM

ETIM 8.0	EC001596
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UNSPSC

UNSPSC 21.0	32151600
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
	Dechlorane Plus
China RoHS	Environmentally Friendly Use Period = 25;
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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Accessories

Bus connector

Bus connector - AXL F BS F - 2688129

<https://www.phoenixcontact.com/pc/products/2688129>

Axioline F bus base module for housing type F



Shield connection

Shield connection - AXL SHIELD SET - 2700518

<https://www.phoenixcontact.com/pc/products/2700518>

Axioline shield connection set (contains 2 shield bus holders and 2 SK 5 shield connection clamps)



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Zack marker strip

Zack marker strip - ZB 20,3 AXL UNPRINTED - 0829579

<https://www.phoenixcontact.com/pc/products/0829579>



Zack marker strip for Axioline F (device labeling), in 2 x 20.3 mm pitch, unprinted, 25-section, for individual labeling with B-STIFT 0.8, X-PEN, or CMS-P1-PLOTTER

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 10/5,8 AXL UNPRINTED - 0829580

<https://www.phoenixcontact.com/pc/products/0829580>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.15 mm, lettering field size: 4 of 10.15 x 5 mm and 1 of 5.8 x 5 mm, Number of individual labels: 50

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Insert label

Insert label - EMT (35X46)R - 0801604

<https://www.phoenixcontact.com/pc/products/0801604>



Insert label, for marking the Axioline F series from Phoenix Contact, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: insert, lettering field size: 35 x 46 mm, Number of individual labels: 500

Separating plate

Separating plate - AXL F/P IO EX PP - 1100201

<https://www.phoenixcontact.com/pc/products/1100201>

Axioline F/P partition plate for intrinsically safe modules



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