

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



1052432

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

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 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
Sales key	DR02
Product key	DR12E7
GTIN	4055626676715
Weight per piece (including packing)	398.7 g
Weight per piece (excluding packing)	380 g
Customs tariff number	85176200
Country of origin	US

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

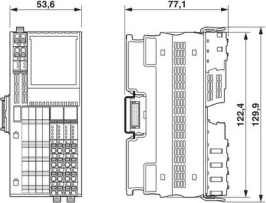


1052432

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

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
Utilization restriction	
CCCEX note	Use in potentially explosive areas is not permitted in China.

Material specifications

Color	traffic grey A RAL 7042
-------	-------------------------

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

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



1052432

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

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
Product family	Axioline F
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

Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply of the local bus (U_{BUS}) / 24 V supply (I/Os)	500 V AC, 50 Hz, 1 min.
Test voltage: 5 V supply of the local bus (U_{BUS}) / 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: Field to functional earth	500 V AC, 50 Hz, 1 min.
Test voltage: Field to 5V or 24V supplies	1500 V AC, 50 Hz, 1 min.

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 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

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



1052432

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

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

Environmental and real-life conditions

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)
------------------	---------------------------------------

Approvals

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

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



1052432

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

UL, USA / Canada	<p>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 [ja Ga] IIC T4 Gc [AEx ia Da] IIIC Ex ec [ja Ga] IIC T4 Gc [Ex ia Da] IIIC</p>
------------------	---

Mounting

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

Ex data

Safety data

Max. output voltage U_o	24.8 V
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

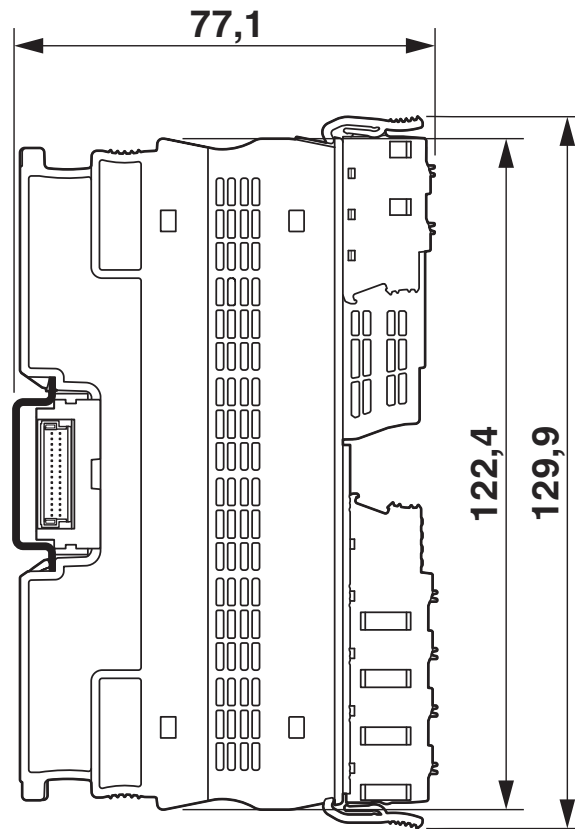
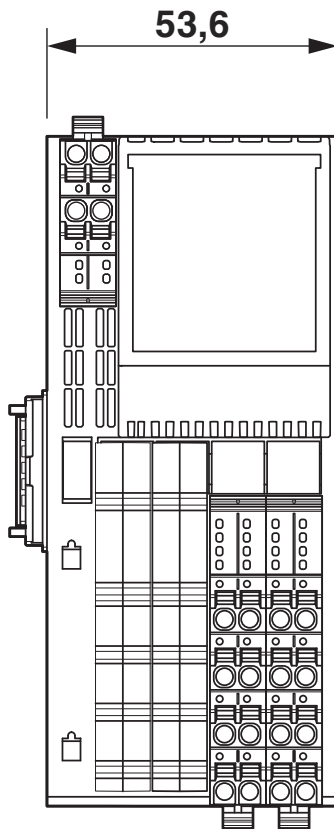
AXL F EX IS AI8 HART XC 1F - Analog module

1052432

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

Drawings

Dimensional drawing



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





1052432


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


Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1052432>


 **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

 **UKCA-EX**
Approval ID: UL22UKEX2508X

cULus Listed

cULus Listed

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



1052432

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

Classifications

ECLASS

ECLASS-11.0	27242601
ECLASS-12.0	27242601
ECLASS-13.0	27242601

ETIM

ETIM 9.0	EC001596
----------	----------

UNSPSC

UNSPSC 21.0	32151600
-------------	----------

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



1052432

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

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"

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



1052432

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

Accessories

AXL F BS F - Bus connector

2688129

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

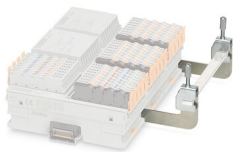


Axioline F bus base module for housing type F

AXL SHIELD SET - Shield connection

2700518

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



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

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

1052432

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

ZB 20,3 AXL UNPRINTED - Zack marker strip

0829579

<https://www.phoenixcontact.com/us/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

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

0829580

<https://www.phoenixcontact.com/us/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 x 10, 15 x 5 mm, 1 x 5.8 x 5 mm, Number of individual labels: 50

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



1052432

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

EMT (35X46)R - Insert label

0801604

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



Insert label, for marking the Axioline F series from Phoenix Contact, 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: insert, lettering field size: 35 x 46 mm, Number of individual labels: 500

AXL F/P IO EX PP - Separating plate

1100201

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

Axioline F/P partition plate for intrinsically safe modules



Phoenix Contact 2023 © - 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