

# Analog module - AXL F AO4 XC 1H

2702153

<https://www.phoenixcontact.com/nz/products/2702153>

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 output module, Analog outputs: 4, 0 V ... 5 V, -5 V ... 5 V, 0 V ... 10 V, -10 V ... 10 V, 0 mA ... 20 mA, 4 mA ... 20 mA, connection technology: 2-conductor, transmission speed in the local bus: 100 Mbps, Extreme conditions version, degree of protection: IP20, including bus base module and Axioline F connectors

## Product Description

The module is designed for use within an Axioline F station. It is used to output analog voltage and current signals.

## Your advantages

- 4 analog output channels for the connection of either voltage or current signals
- Bipolar voltage outputs, unipolar current outputs
- Connection of actuators in 2-conductor technology
- Voltage ranges: 0 V ... 10 V,  $\pm 10$  V, 0 V ... 5 V,  $\pm 5$  V
- Current ranges: 0 mA ... 20 mA, 4 mA ... 20 mA
- Short-circuit-proof outputs
- No derating in all ranges
- Short signal rise times
- Driving of high loads
- Device rating plate stored
- 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)
- Partially coated PCBs

## Commercial Data

Item number	2702153
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	DNI242
Product Key	DRI242
Catalog Page	Page 85 (C-6-2019)
GTIN	4046356991315
Weight per Piece (including packing)	205.6 g
Weight per Piece (excluding packing)	199 g
Country of origin	DE

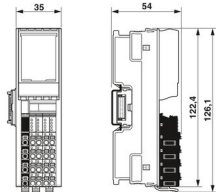
# Analog module - AXL F AO4 XC 1H

2702153

<https://www.phoenixcontact.com/nz/products/2702153>

## Technical Data

### Dimensions

Dimensional drawing	
Width	35 mm
Height	126.1 mm
Depth	54 mm
Note on dimensions	The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

### Material specifications

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

### Interfaces

#### Axioline F local bus

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

### System properties

#### Module

Input address area	8 Byte
Output address area	8 Byte
Required parameter data	14 Byte
Required configuration data	7 Byte

### Output data

#### Analog

Output name	Analog outputs
Connection method	Push-in connection
Connection technology	2-conductor
Note regarding the connection technology	shielded, twisted pair
Number of outputs	4
D/A converter resolution	16 bit
Protective circuit	Short-circuit and overload protection; electronic Transient protection; Suppressor diode
Data formats	IB IL, S7-compatible

# Analog module - AXL F AO4 XC 1H



2702153

<https://www.phoenixcontact.com/nz/products/2702153>

Representation of output values	16 bits (15 bits + sign)
Process data update	140 µs
Current output signal	0 mA ... 20 mA 4 mA ... 20 mA
Load/output load current output	≤ 500 Ω
Voltage output signal	0 V ... 5 V -5 V ... 5 V 0 V ... 10 V -10 V ... 10 V
Load/output load voltage output	≥ 1 kΩ

## 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

## Insulation characteristics

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

## Electrical properties

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

Supply voltage	5 V DC (via bus base module)
Current draw	max. 150 mA typ. 120 mA
Power consumption	max. 0.75 W typ. 0.6 W

### 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. 125 mA (4 current channels, 24 mA output, 500 Ω load) typ. 60 mA (4 voltage channels, 10 V output) max. 85 mA (4 voltage channels, 10 V output) max. 110 mA (4 current channels, 20 mA output, 500 Ω load)
Power consumption	max. 3 W
Protective circuit	Surge protection; electronic (35 V, 0.5 s) Reverse polarity protection; Polarity protection diode Transient protection; Suppressor diode

## Connection data

### Connection technology

Connection name	Axioline F connector
-----------------	----------------------

# Analog module - AXL F AO4 XC 1H



2702153

<https://www.phoenixcontact.com/nz/products/2702153>

Note on the connection method	Please observe the information provided on conductor cross sections in the "Axiline F: system and installation" user manual.
-------------------------------	--

## Conductor connection

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

## Axiline F connector

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axiline F: system and installation" user manual.
Conductor cross section, rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Stripping length	8 mm

## Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (Standard, applications with UL approval, use in zone 2 potentially explosive area) -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)
------------------	---------------------------------------

## Approval data

### ATEX

Identification	□ II 3 G Ex ec IIC T4 Gc
Certificate	UL 20 ATEX 2241X

### IECEX

Identification	Ex ec IIC T4 Gc
Certificate	IECEX ULD 20.0026X

### UL, USA / Canada

Identification	cULus
Certificate	E238705

### UL Ex, USA / Canada

Identification	Class I, Zone 2, AEx ec IIC T4, Ex ec IIC T4 Gc X
----------------	---

# Analog module - AXL F AO4 XC 1H



2702153

<https://www.phoenixcontact.com/nz/products/2702153>

	Class I, Div. 2, Groups A, B, C, D T4
Certificate	E366272

## Mounting

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

# Analog module - AXL F AO4 XC 1H

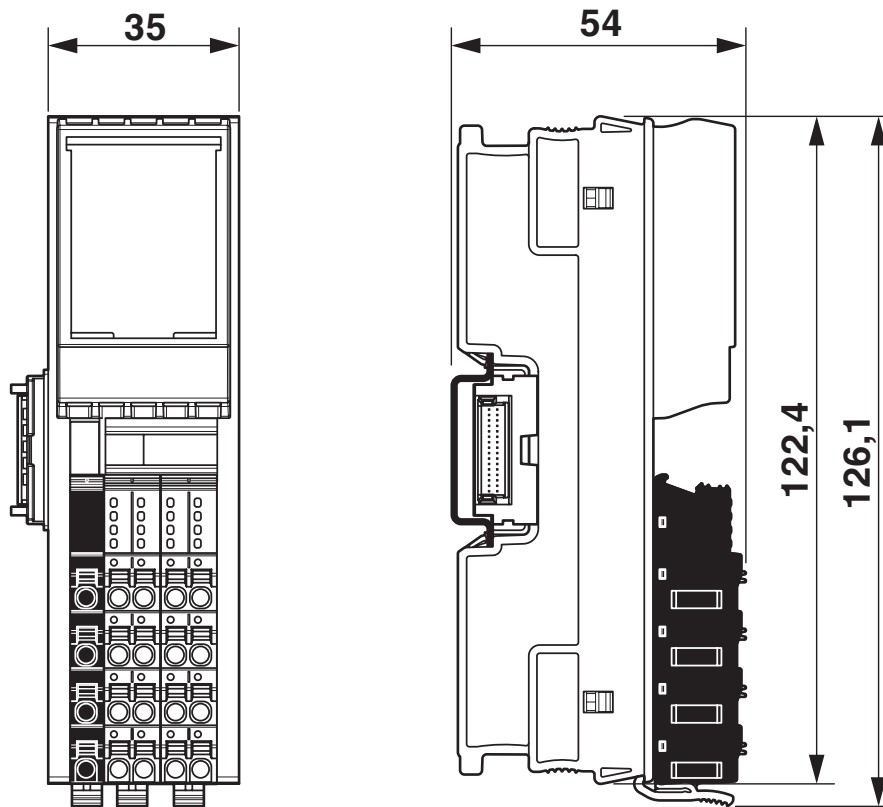
2702153

<https://www.phoenixcontact.com/nz/products/2702153>



## Drawings

Dimensional drawing

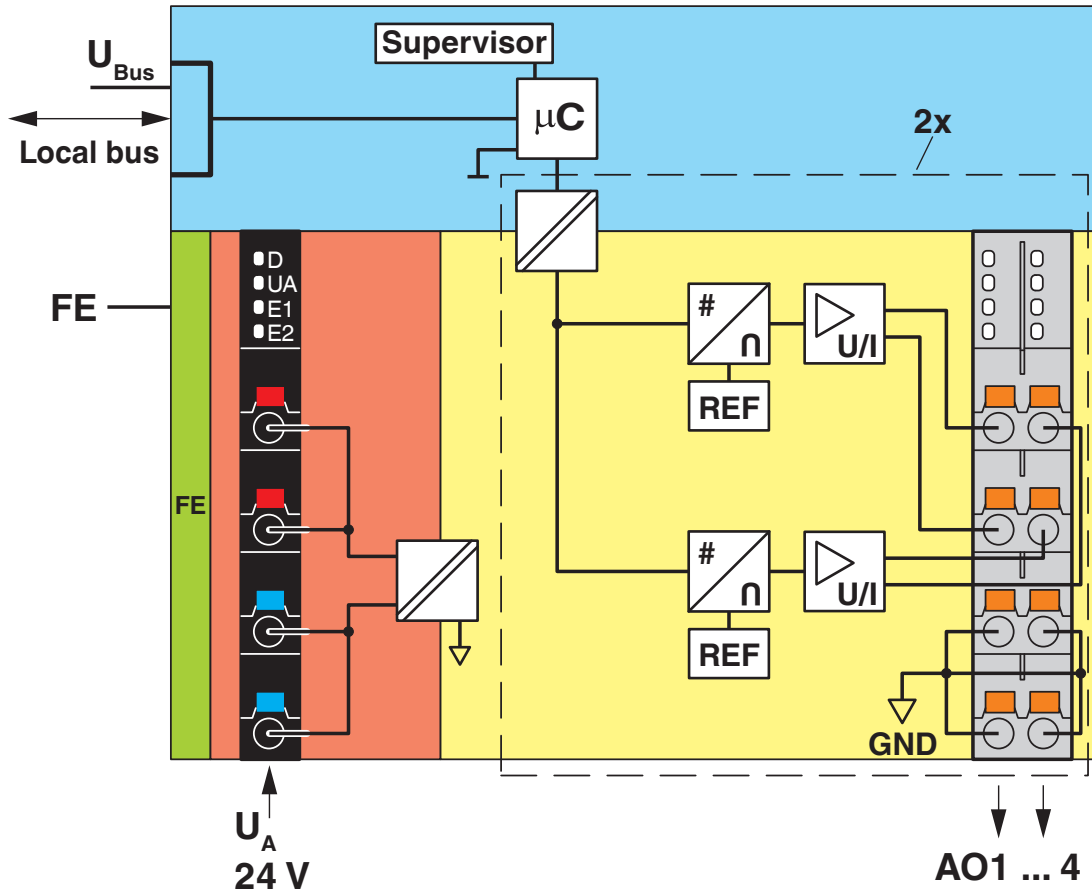


# Analog module - AXL F AO4 XC 1H

2702153

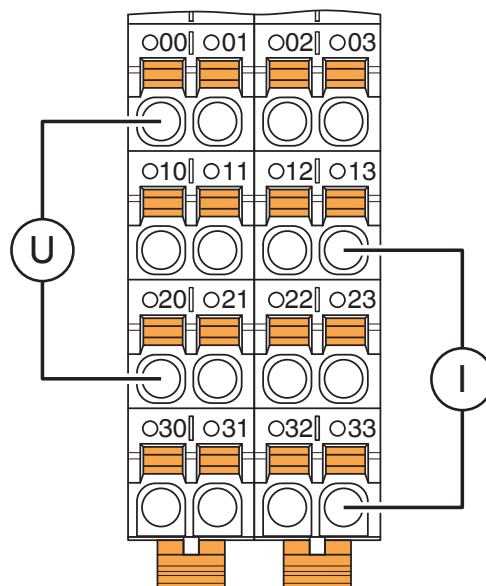
<https://www.phoenixcontact.com/nz/products/2702153>

Block diagram



Internal wiring of the terminal points

Connection diagram



Connection for voltage and current output

# Analog module - AXL F AO4 XC 1H



2702153

<https://www.phoenixcontact.com/nz/products/2702153>

## Approvals



**DNV GL**

Approval ID: TAA00000DF



**LR**

Approval ID: LR2001902TA



**NK**

Approval ID: 14A006



**BV**

Approval ID: 36433/B4 BV



**PRS**

Approval ID: TE/1020/880590/21



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705

**BSH**

Approval ID: 840



**RINA**

Approval ID: ELE283021XG



**IECEX**

Approval ID: IECEX ULD 20.0026X



**ATEX**

Approval ID: UL 20 ATEX 2441X



**cULus Listed**

Approval ID: FILE E 366272



# Analog module - AXL F AO4 XC 1H

2702153

<https://www.phoenixcontact.com/nz/products/2702153>



cULus Listed

# Analog module - AXL F AO4 XC 1H



2702153

<https://www.phoenixcontact.com/nz/products/2702153>

## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC001596
----------	----------

### UNSPSC

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

# Analog module - AXL F AO4 XC 1H



2702153

<https://www.phoenixcontact.com/nz/products/2702153>

## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

# Analog module - AXL F AO4 XC 1H

2702153

<https://www.phoenixcontact.com/nz/products/2702153>



## Accessories

### Bus connector

Bus connector - AXL F BS H - 2700992

<https://www.phoenixcontact.com/nz/products/2700992>

Axioline F bus base module for housing type H



---

### Shield connection

Shield connection - AXL SHIELD SET - 2700518

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

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



# Analog module - AXL F AO4 XC 1H

2702153

<https://www.phoenixcontact.com/nz/products/2702153>

## Zack marker strip

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

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

# Analog module - AXL F AO4 XC 1H



2702153

<https://www.phoenixcontact.com/nz/products/2702153>

## Insert label

Insert label - EMT (35X28)R - 0801602

<https://www.phoenixcontact.com/nz/products/0801602>



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 28 mm, Number of individual labels: 500

---

Phoenix Contact 2022 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd

Unit 15C, 906-930 Great South Road, Penrose

Auckland 1061

0508 474 636

[sales@phoenixcontact.co.nz](mailto:sales@phoenixcontact.co.nz)