

# Special function module - AXL F IMPULSE2 XC 1H - 2702655

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Axioline F, Function module, 2 digital pulse interfaces for evaluating magnetostrictive position sensors with start/stop interface, Transmission speed in the local bus 100 MBit/s, 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 evaluate magnetostrictive position sensors with start/stop interface. The module determines the position by measuring the runtime of one or more mechanical waves in the connected magnetostrictive position sensors. Using the known propagation velocity of these mechanical waves, the module calculates the position of the magnets on the magnetostrictive position sensors. The positions are determined asynchronously to the Axioline F local bus.

## Your advantages

- ✓ 2 channels for magnetostrictive position sensors with start/stop interface
- ✓ 5 stop events per channel
- ✓ Automatic parameter upload
- ✓ 4 digital inputs
- ✓ Device rating plate stored
- ✓ Diagnostic and status indicators
- ✓ 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



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 269511
GTIN	4055626269511
Weight per Piece (excluding packing)	134.000 g
Custom tariff number	85389091
Country of origin	Germany
Note	Made to Order (non-returnable)

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## Technical data

### Dimensions

Width	35 mm
Height	126.1 mm
Depth	54 mm
Note on dimensions	The depth is valid when a TH 35-7,5 DIN rail is used (according to EN 60715).

### 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.)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
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)
Degree of protection	IP20 (per manufacturer's declaration)

### General

Mounting type	DIN rail
Color	traffic grey A RAL 7042
Net weight	134 g
Note on weight specifications	with connectors and bus base module

### Interfaces

Designation	Axiline F local bus
No. of channels	2
Connection method	Bus base module
Transmission speed	100 Mbps

### Axiline potentials

Designation	Axiline F local bus supply ( $U_{Bus}$ )
Supply voltage	5 V DC (via bus base module)
Current consumption	max. 150 mA
Power consumption	max. 0.75 W
Designation	Supply voltage input $U_i$
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC including all tolerances, including ripple
Current consumption	max. 30 mA (Supply of pulse interface, without encoder supply)
Power consumption	max. 0.72 W (Supply of pulse interface, without encoder supply)
Protective circuit	Surge protection of the supply voltage electronic (35 V, 0.5 s)
	Polarity reversal protection of the supply voltage Polarity protection diode
	Transient protection Suppressor diode

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## Technical data

### Encoder data

Number of 24 V encoder supplies	2
Nominal output voltage	24 V DC ( $U_i - 0.5$ V)
Voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current carrying capacity	typ. 500 mA
Type of protection	Surge protection
	Short-circuit protection
	Transient protection

### Digital inputs

Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3
Connection method	Push-in connection
Connection technology	1-wire
Number of inputs	4
Protective circuit	Polarity reversal protection of the inputs parallel diode (30 V, 5 s)
Nominal input voltage $U_{IN}$	24 V DC
Nominal input current at $U_{IN}$	2.4 mA
Input filter time	250 $\mu$ s
	1000 $\mu$ s
	3000 $\mu$ s
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC

### Standards and Regulations

Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 30g
	Continuous shock according to EN 60068-2-27/IEC 60068-2-27 10g
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

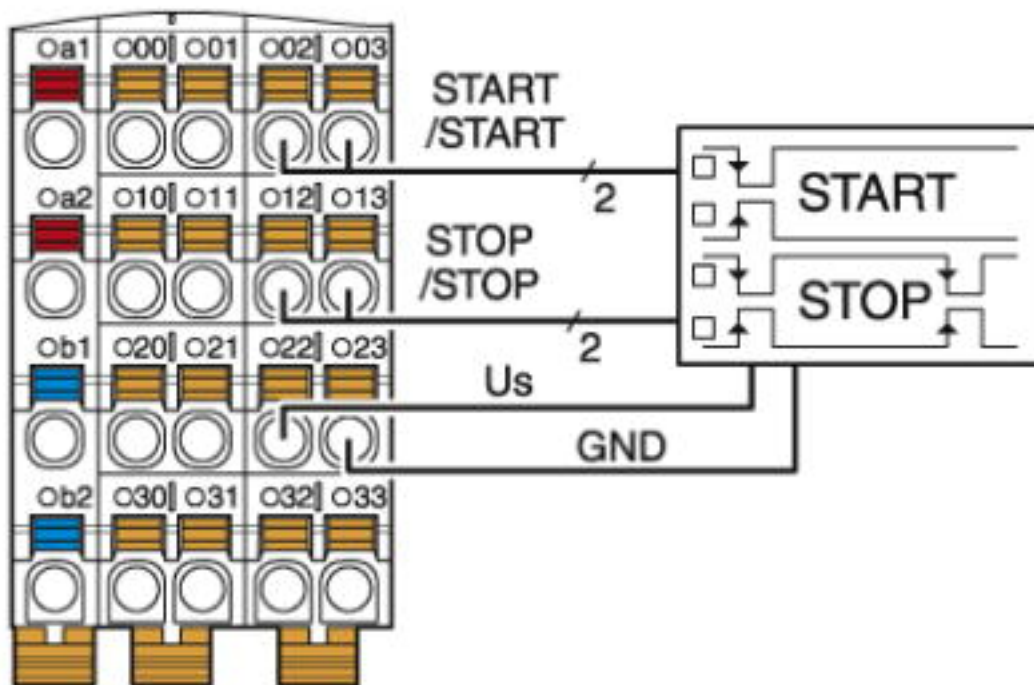
### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

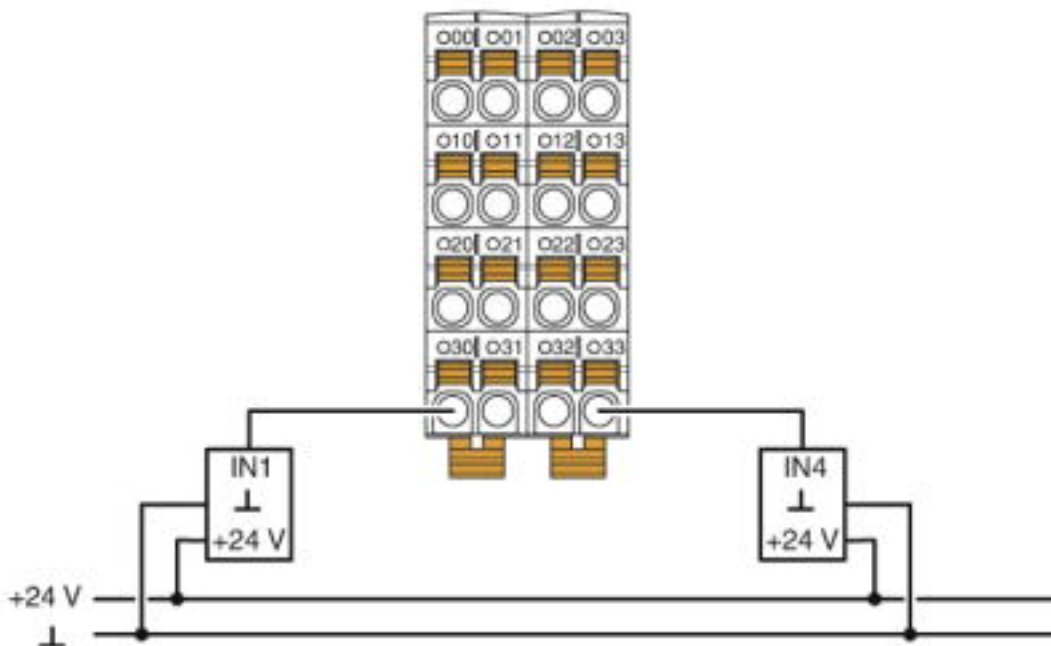
# Special function module - AXL F IMPULSE2 XC 1H - 2702655

Connection diagram



Example connection of a magnetostrictive position sensor

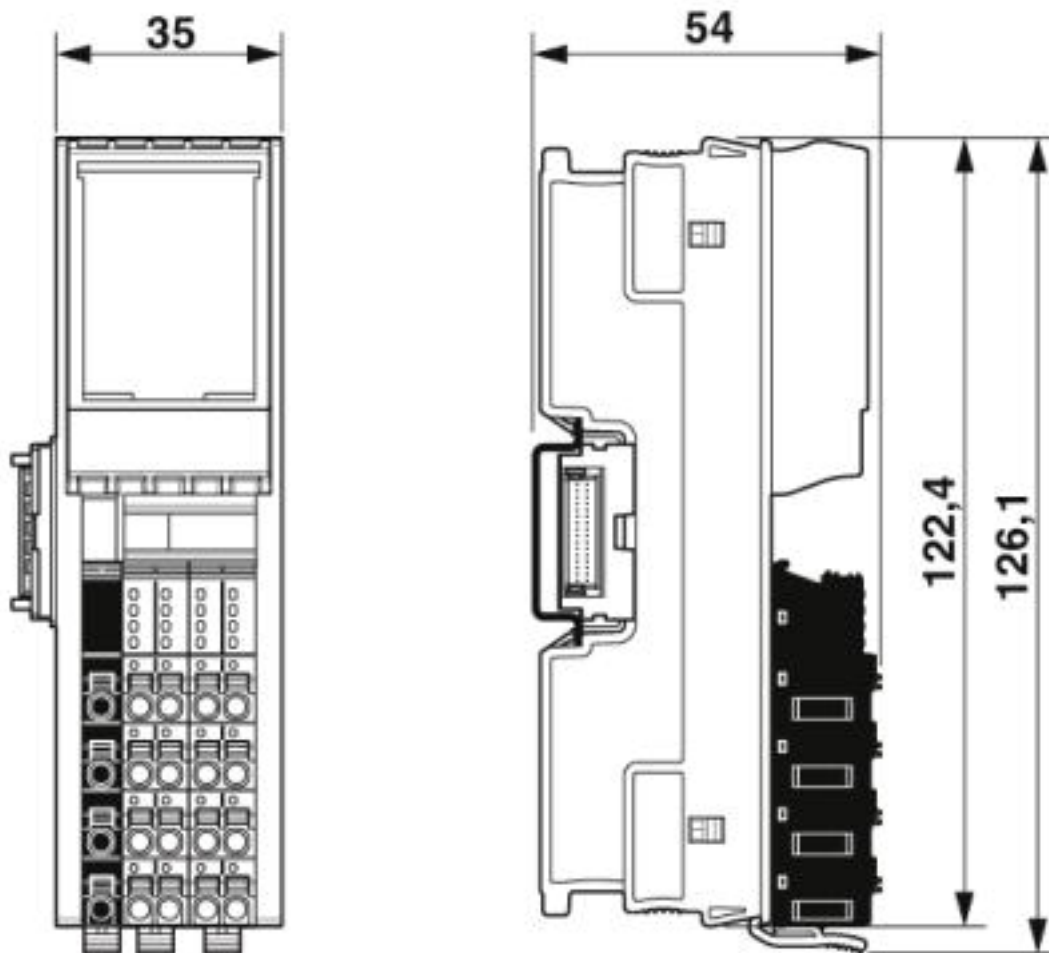
Connection diagram



Example of a connection of sensors when using external busbars

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Dimensional drawing



## Classifications

### eCl@ss

eCl@ss 4.0	27240409
eCl@ss 4.1	27240409
eCl@ss 5.0	27242205
eCl@ss 5.1	27242605
eCl@ss 6.0	27242600
eCl@ss 7.0	27242605
eCl@ss 8.0	27242605
eCl@ss 9.0	27242605

### ETIM

ETIM 3.0	EC001599
ETIM 4.0	EC001435
ETIM 5.0	EC001601

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## Classifications

### ETIM

ETIM 6.0	EC001601
ETIM 7.0	EC001601

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	39121311
UNSPSC 12.01	39121311
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

## Approvals

### Approvals

#### Approvals

UL Listed / cUL Listed / cULus Listed

#### Ex Approvals

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
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cULus Listed			
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## Accessories

### Accessories

### Device marking

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### Accessories

Insert label - EMT (35X28)R - 0801602



Insert label, 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: snapped into marker carrier, lettering field size: 35 x 28 mm, Number of individual labels: 500

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### DIN rail connector

Bus connector - AXL F BS H - 2700992



Axioline F bus base module for housing type H

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### Shield connection

Shield connection - AXL SHIELD SET - 2700518



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

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### Terminal marking

Zack marker strip - ZB 20,3 AXL UNPRINTED - 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

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



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, 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

