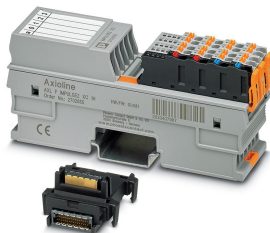


Special function module - AXL F IMPULSE2 XC 1H - 2702655

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Axioline F XC, 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
Custom tariff number	85389091
Country of origin	Germany

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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	Axioline F local bus
Number of interfaces	2
Connection method	Bus base module
Transmission speed	100 Mbps

Axioline potentials

Designation	Axioline 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	Feed-in of supply voltage (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)

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Technical data

Axioline potentials

Protective circuit	Surge protection electronic (35 V, 0.5 s)
	Reverse polarity protection Polarity protection diode
	Transient protection Suppressor diode

Encoder data

Number of 24 V encoder supplies	2
Nominal output voltage	24 V DC (U_L - 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-conductor
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 μ s
	1000 μ s
	3000 μ 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

Immunity to ESD	Noise immunity test in accordance with EN 61000-6-2 Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 Criterion B, 6 kV contact discharge, 8 kV air discharge
Immunity to EF	Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
Immunity to burst	Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B, 2 kV
Immunity to surge	Noise immunity test in accordance with EN 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B, supply lines DC: ± 0.5 kV/ ± 0.5 kV (symmetrical/asymmetrical), ± 1 kV to shielded I/O cables

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Technical data

Standards and Regulations

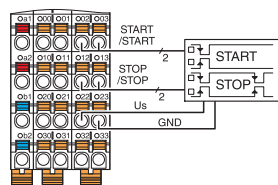
Immunity to conducted interference	Noise immunity test in accordance with EN 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V
Interference emission	Noise emission test according to EN 61000-6-3 Class B
Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 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 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

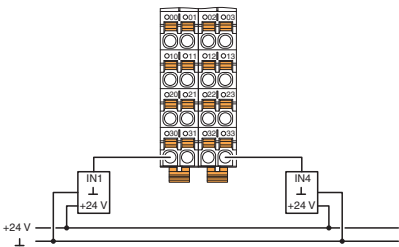
Drawings

Connection diagram



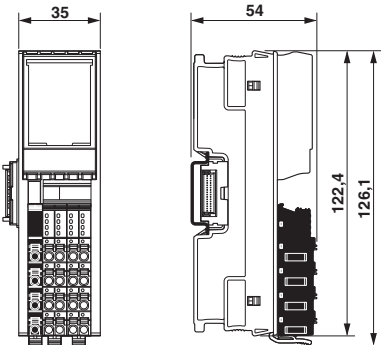
Example connection of a magnetostrictive position sensor

Connection diagram



Example of a connection of sensors when using external busbars

Dimensional drawing



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Classifications

eCl@ss

eCl@ss 10.0.1	27242605
eCl@ss 11.0	27242605
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 9.0	27242605

ETIM

ETIM 3.0	EC001599
ETIM 4.0	EC001435
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

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Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cULus Listed			

Accessories

Accessories

Device marking

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

DIN rail connector

Bus connector - AXL F BS H - 2700992



Axiline F bus base module for housing type H

Shield connection

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Accessories

Shield connection - AXL SHIELD SET - 2700518



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

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

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