

I/O module - AXL SE CNT1 - 1088131

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Axioline Smart Elements, Function module, Counter input: 1, Control input: 1, Counting direction input: 1, Digital output: 1, 24 V DC, 100 mA, degree of protection: IP20

Product Description

You can integrate Axioline Smart Elements into systems with the Smart Element interface.

This Smart Element detects and processes fast pulse sequences from sensors.


The Smart Element has a counter input (source), a control input (gate), a counting direction input (direction) and a configurable output (OUT).

Your advantages

- 32-bit counter (up and down)
- Maximum input frequency: 150 kHz
- Activation of an output is based on a comparative value
- Counter control using a hardware or software gate
- Single or periodic count
- Protected 24 V sensor/actuator supply
- Device rating plate stored



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 887722
GTIN	4055626887722
Weight per Piece (excluding packing)	40.000 g
Custom tariff number	85389091
Country of origin	Germany

I/O module - AXL SE CNT1 - 1088131

Technical data

Note

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

Dimensions

Caption	Dimensions
Width	14.9 mm
Height	62.2 mm
Depth	62 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
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

Connection data

Designation	I/O
Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "Axioline Smart Elements" user manual.
Conductor cross section solid min.	0.25 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.25 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Stripping length	8 mm

General

Mounting type	Smart Element slot
Color	traffic grey A RAL 7042
Net weight	34.6 g
Degree of pollution	2 (IEC 60664-1, EN 60664-1)
Mounting position	See the system in which the Smart Element is used.

I/O module - AXL SE CNT1 - 1088131

Technical data

Interfaces

Designation	Smart Element interface
Number of interfaces	1
Connection method	Card edge connector
Transmission speed	See system in which you use the Smart Element.
Start time until ready to operate	< 500 ms (after switching on the supply voltage (object 003D _{hex} : WakeUpTime))

Power supply for module electronics

Designation	Sensor/actuator supply U _S
Supply voltage	24 V DC
Current carrying capacity	max. 500 mA
Protective circuit	Short-circuit/overload protection Suppressor diode

Axioline potentials

Designation	Communications power supply of the Smart Elements (U _{SE})
Additional text	using card edge connectors
Current consumption	max. 30 mA
Designation	I/O supply (U _P)
Supply voltage	24 V DC (using card edge connectors)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	min. 20 mA (without connected peripherals)
	typ. 620 mA
	max. 700 mA
Power consumption	min. 480 mW
	max. 21 W (of which 1.48 W internal losses)
Protective circuit	Surge protection See the system in which the Smart Element is used.
	Reverse polarity protection Polarity protection diode
Protection	See the system in which the Smart Element is used.

Counter inputs

Input name	Counter input
Number of inputs	1 (Source)
Description of the input	EN 61131-2 type 1
Connection method	Push-in connection
Input voltage	24 V DC
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Input frequency	max. 150 kHz
Input current	typ. 2.3 mA

I/O module - AXL SE CNT1 - 1088131

Technical data

Counter inputs

Resolution	32 bits
------------	---------

Counting direction input

Input name	Counting direction input
Description of the input	EN 61131-2 type 1
Connection method	Push-in connection
Number of inputs	1 (Direction)
Input voltage	24 V DC
Input current	typ. 2.3 mA
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Protective circuit	Surge protection Suppressor diode

Control input

Input name	Control input
Description of the input	EN 61131-2 type 1
Number of inputs	1 (Gate)
Input voltage	24 V DC
Input current	typ. 2.3 mA
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Protective circuit	Surge protection Suppressor diode

Digital outputs

Output name	Digital output
Output description	Push-pull output (switches to GND at level 0)
Connection method	Push-in connection
Number of outputs	1 (OUT)
Protective circuit	Short-circuit and overload protection electronic
	Surge protection Suppressor diode
Output voltage	24 V DC

Electrical isolation

Test section	Communications supply / 24 V supply (I/O) 500 V AC 50 Hz 1 min.
	Communications supply / functional ground 500 V AC 50 Hz 1 min.
	24 V supply (I/O) / functional ground 500 V AC 50 Hz 1 min.

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
-----------------	--

I/O module - AXL SE CNT1 - 1088131

Technical data

Standards and Regulations

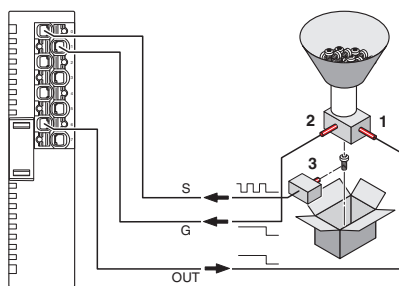
Immunity to EF	Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
Immunity to burst	Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B, 2 kV
Immunity 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, I/O cables: ±1 kV asymmetrical
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 as per EN 61000-6-4 Class A
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)
Overvoltage category	II (IEC 60664-1, EN 60664-1)

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"

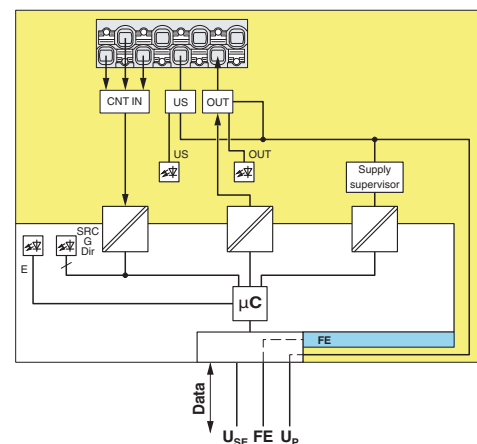
Drawings

Connection diagram



Connection example

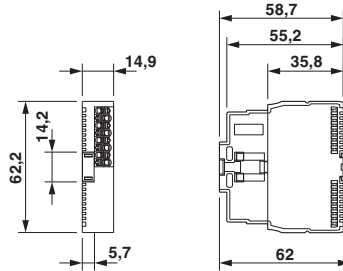
Block diagram



Internal wiring of the terminal points

I/O module - AXL SE CNT1 - 1088131

Dimensional drawing



Dimensions

Classifications

eCl@ss

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

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex 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
------------	--	---	---------------

I/O module - AXL SE CNT1 - 1088131

Approvals

cULus Listed



Accessories

Accessories

Crimping tool

Crimping pliers - CRIMPFOX 6 - 1212034



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Crimping pliers - CRIMPFOX 6T - 1212037



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6 mm², lateral entry, trapezoidal crimp

Crimping pliers - CRIMPFOX 6T-F - 1212038



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6 mm², front entry, trapezoidal crimp

I/O component

Module carrier - AXL F BP SE4 - 1088135



Axioline F, Backplane, 4 slots for Axioline Smart Elements, transmission speed in the local bus: 100 Mbps, degree of protection: IP20

I/O module - AXL SE CNT1 - 1088131

Accessories

Module carrier - AXL F BP SE6 - 1088136



Axioline F, Backplane, 6 slots for Axioline Smart Elements, transmission speed in the local bus: 100 Mbps, degree of protection: IP20

Screwdriver tools

Screwdriver - SZS 0,4X2,5 VDE - 1205037



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

Terminal marking

Label - MM-TML (EX4,2)R C1 TR/BK - 0803979



Label, Roll, transparent, unlabeled, can be labeled with: THERMOFOX, THERMOMARK GO, THERMOMARK GO.K, mounting type: adhesive, for terminal block width: 8000 mm, lettering field size: continuous x 4.2 mm

Marker strip - SK 5,0 WH:REEL - 0805221



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: continuous x 5 mm, Number of individual labels: 90000

Marker for terminal blocks - UM6M-TM (5X12) - 0830928

Markers for marking terminal blocks from ABB/Entelec, 24-section, unmarked, can be marked with THERMOMARK CARD and BLUEMARK, color: white



I/O module - AXL SE CNT1 - 1088131

Accessories

Marker for terminal blocks from the SNK series from ABB - UCT6M-TM 5 - 0830756



Marker for terminal blocks from the SNK series from ABB, Sheet, white, unlabeled, can be labeled with: THERMOMARK CARD, THERMOMARK CARD 2.0, THERMOMARK PRIME, BLUEMARK ID, BLUEMARK ID COLOR, TOPMARK LASER, TOPMARK NEO, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.17 x 11.3 mm
