

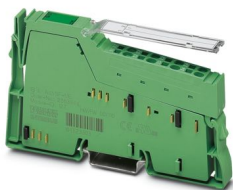
IB IL AI 2/SF-ME - Analog module

2863944

<https://www.phoenixcontact.com/gb/products/2863944>



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.



Inline, Analog input terminal, Analog inputs: 2, 0 V ... 10 V, -10 V ... 10 V, 0 mA ... 20 mA, 4 mA ... 20 mA, -20 mA ... 20 mA, connection technology: 2-conductor, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector and labeling field; The product is being prepared for compliance with the Cyber Resilience Act (CRA).

Product description

The terminal is designed for use within an Inline station. It is used to acquire analog voltage and current signals.

Your advantages

- 2 analog single-ended signal inputs for the connection of either voltage or current signals
- Connection of sensors in 2-conductor technology
- Current ranges: 0 mA ... 20 mA, 4 mA ... 20 mA, ± 20 mA
- Voltage ranges: 0 V ... 10 V, ± 10 V
- The channels are parameterized independently of one another via the bus system
- Measured values can be represented in four different formats
- Resolution: 12 bits + sign bit
- Process data update of both channels within a max. of 1.5 ms



Commercial data

IB IL AI 2/SF-ME - Analog module



2863944

<https://www.phoenixcontact.com/gb/products/2863944>

Item number	2863944
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DRI141
Product key	DRI141
GTIN	4017918962654
Weight per piece (including packing)	81.5 g
Weight per piece (excluding packing)	81.5 g
Customs tariff number	85389099
Country of origin	DE

IB IL AI 2/SF-ME - Analog module

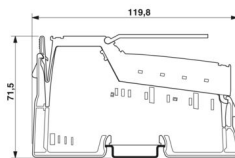


2863944

<https://www.phoenixcontact.com/gb/products/2863944>

Technical data

Dimensions

Dimensional drawing	
Width	12.2 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

Notes

Note on application	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.
Utilization restriction	
CCCex note	Use in potentially explosive areas is not permitted in China.

Mounting

Mounting type	DIN rail mounting
---------------	-------------------

Material specifications

Color (Housing)	green (RAL 6021)
-----------------	------------------

Interfaces

Inline local bus	
Number of interfaces	2
Connection method	Inline data jumper
Transmission speed	500 kbps

System properties

Programming data (LocalbusSlave)	
Length code (hex)	02
ID code (dec.)	127
Length code (dec)	02
Process data channel	32 bit
Input address area	4 Byte

IB IL AI 2/SF-ME - Analog module



2863944

<https://www.phoenixcontact.com/gb/products/2863944>

Output address area	4 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	32 bit

Fieldbus data telegram (PROFIBUS)

Required parameter data	6 Byte
Required configuration data	4 Byte

Input data

Analog:

Input name	Analog inputs
Description of the input	Single-ended inputs, voltage or current
Number of inputs	2
A/D conversion time	typ. 120 µs (per channel)
Connection method	Inline connector
Connection technology	2-conductor
Current input signal	0 mA ... 20 mA 4 mA ... 20 mA -20 mA ... 20 mA
Input resistance current input	50 Ω (Shunt)
Voltage input signal	0 V ... 10 V -10 V ... 10 V
Input resistance of voltage input	> 220 kΩ
Data formats	IB IL, IB ST, IB RT, standardized representation
Limit frequency (3 dB)	40 Hz
Common mode voltage range signal - ground	40 V (Between current input and functional ground) 40 V (between voltage input and functional ground)
Measuring principle	Successive approximation
Measured value resolution	13 bits (12 bits + sign bit)
Measured value representation	13 bits (12 bits + sign bit)
Protective circuit	Surge protection; Suppressor diodes in the analog inputs

Product properties

Product type	I/O component
Product family	Inline
Type	modular
Installation location	Control cabinet
Scope of supply	including Inline connector and labeling field
Operating mode	Process data operation with 2 words
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)
Diagnostics messages	Failure of the internal I/O supply yes I/O error Error message in the process data User error Error message in the process data

IB IL AI 2/SF-ME - Analog module



2863944

<https://www.phoenixcontact.com/gb/products/2863944>

Insulation characteristics

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

Electrical properties

Maximum power dissipation for nominal condition	0.9 W
---	-------

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 60 mA typ. 45 mA

Potentials: Supply of analog modules (U_{ANA})

Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 18 mA typ. 13 mA

Electrical isolation/isolation of the voltage ranges

Test voltage: 7.5 V supply (bus logic), 24 V supply U_{ANA} / I/O	500 V AC, 50 Hz, 1 min
Test voltage: 7.5 V supply (bus logic), 24 V supply U_{ANA} / functional ground	500 V AC, 50 Hz, 1 min
Test voltage: I/O/functional ground	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	Inline connector
-----------------	------------------

Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm ² ... 1.5 mm ²
Conductor cross-section, flexible	0.08 mm ² ... 1.5 mm ²
Conductor cross-section AWG	28 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
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)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)

IB IL AI 2/SF-ME - Analog module



2863944

<https://www.phoenixcontact.com/gb/products/2863944>

Mechanical test

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	25g

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
------------------	---------------------------------------

IB IL AI 2/SF-ME - Analog module

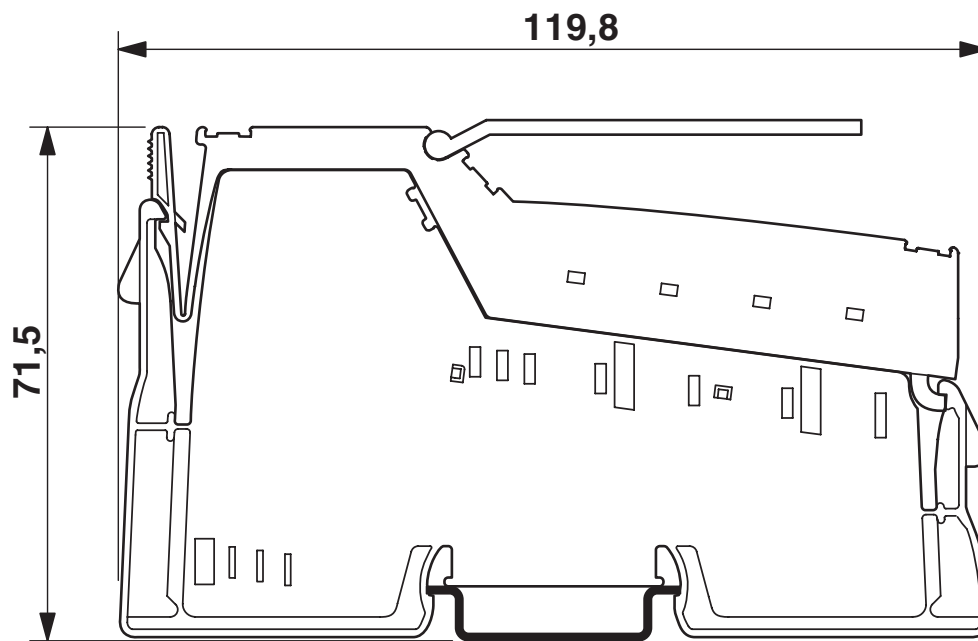
2863944

<https://www.phoenixcontact.com/gb/products/2863944>



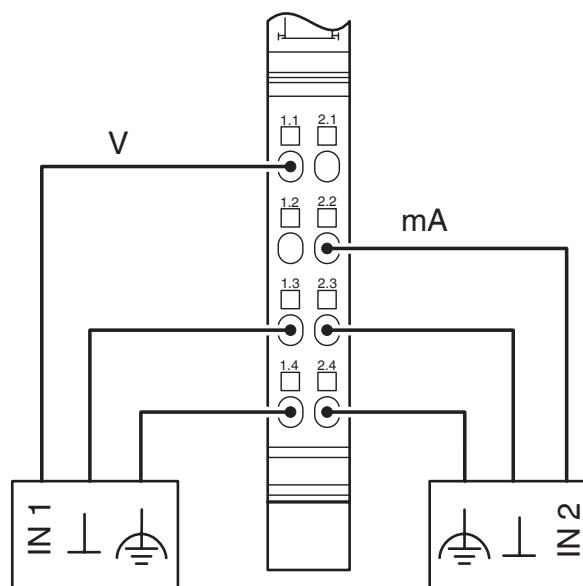
Drawings

Dimensional drawing



Dimensions

Connection diagram



Connection example

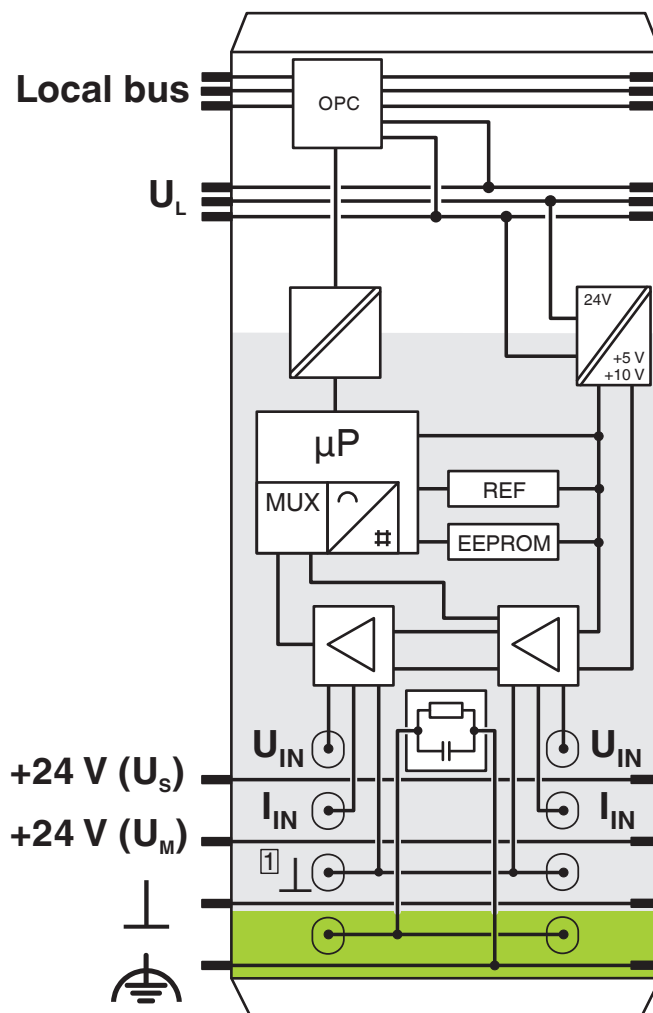
IB IL AI 2/SF-ME - Analog module

2863944

<https://www.phoenixcontact.com/gb/products/2863944>



Block diagram



Internal wiring of the terminal points

IB IL AI 2/SF-ME - Analog module



2863944

<https://www.phoenixcontact.com/gb/products/2863944>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2863944>



cULus Recognized

Approval ID: E140324



cULus Listed

Approval ID: E199827

IB IL AI 2/SF-ME - Analog module



2863944

<https://www.phoenixcontact.com/gb/products/2863944>

Classifications

ECLASS

ECLASS-13.0	27242601
ECLASS-15.0	27242601

ETIM

ETIM 10.0	EC001596
-----------	----------

UNSPSC

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

IB IL AI 2/SF-ME - Analog module



2863944

<https://www.phoenixcontact.com/gb/products/2863944>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(a)-I, 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	8ed59981-2d0f-4784-8012-926bd2933d02

Phoenix Contact 2026 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk