

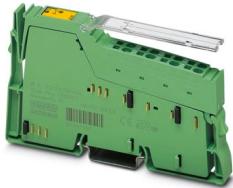
# IB IL AO 2/U/BP-ME - Analog module



2863957

<https://www.phoenixcontact.com/us/products/2863957>

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Inline, Analog output terminal, Analog outputs: 2, 0 V ... 10 V, -10 V ... 10 V, connection technology: 2-conductor, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector and labeling field

## Product description

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

## Your advantages

- 2 analog output channels
- Connection of actuators in 2-conductor technology
- Voltage ranges: 0 V ... 10 V,  $\pm 10$  V
- Output values can be represented in two different formats
- Behavior of the outputs in the event of an error can be configured
- Process data update including conversion time of the digital/analog converter < 1 ms

## Commercial data

Item number	2863957
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI142
GTIN	4017918962647
Weight per piece (including packing)	76 g
Weight per piece (excluding packing)	48 g
Customs tariff number	85389099
Country of origin	DE

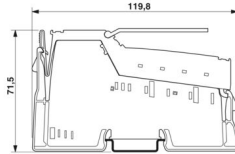
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## Technical data

### Dimensions

Dimensional drawing	
Width	12.2 mm
Height	119.8 mm
Depth	71.5 mm

### Notes

#### Note on application

Note on application	Only for industrial use
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#### Utilization restriction

CCcex note	Use in potentially explosive areas is not permitted in China.
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### Material specifications

Color (Housing)	green (RAL 6021)
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### 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.)	91
Length code (dec)	02
Process data channel	32 bit
Input address area	4 Byte
Output address area	4 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	32 bit

#### Fieldbus data telegram (PROFIBUS)

Required parameter data	6 Byte
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Required configuration data	5 Byte
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## Output data

Analog:

Output name	Analog outputs
Output description	Single-ended
Connection technology	2-conductor
Note regarding the connection technology	shielded
Number of outputs	2
D/A conversion time	< 1 ms
Protective circuit	Transient protection of outputs
Data formats	IB IL, IB ST
Representation of output values	13 bits (12 bits + sign)
DAC resolution	13 bit
Process data update	< 1 ms
Voltage output signal	0 V ... 10 V -10 V ... 10 V
Load/output load voltage output	> 2 kΩ
Permissible cable length	max. 500 m (The specifications refer to nominal operation after complying with installation instructions. The specifications refer to the following reference cable type: Shielded power station cable: LiYCY; 2 x 2 x 0,5 mm <sup>2</sup> ; VDE0812)

## 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
Diagnostics messages	Failure of or insufficient communications power U <sub>L</sub> I/O error message sent to the bus coupler

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	1.15 W
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Potentials: Communications power (U<sub>L</sub>)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 40 mA typ. 33 mA

Potentials: Supply of analog modules (U<sub>ANA</sub>)

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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. 35 mA (Full load ( $R_L = 2 \text{ k}\Omega$ ))
	max. 28 mA (No-load)
	typ. 25 mA (Full load ( $R_L = 2 \text{ k}\Omega$ ))
	typ. 18 mA (No-load)

## 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: 24 V supply (I/O) / functional ground	500 V AC, 50 Hz, 1 min

## Connection data

### Connection technology

Connection name	Inline connector
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### Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section, flexible	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
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)

### 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)
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## Mounting

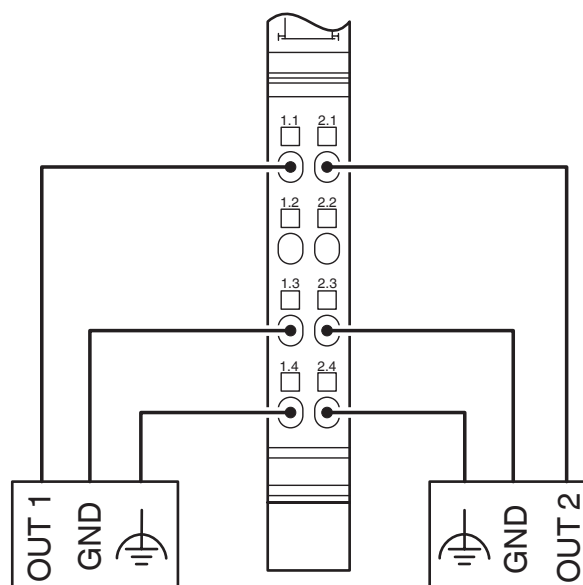
Mounting type	DIN rail mounting
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## Drawings

Dimensional drawing



Connection diagram



Connection of two voltage actuators in 2-conductor technology with shield connection

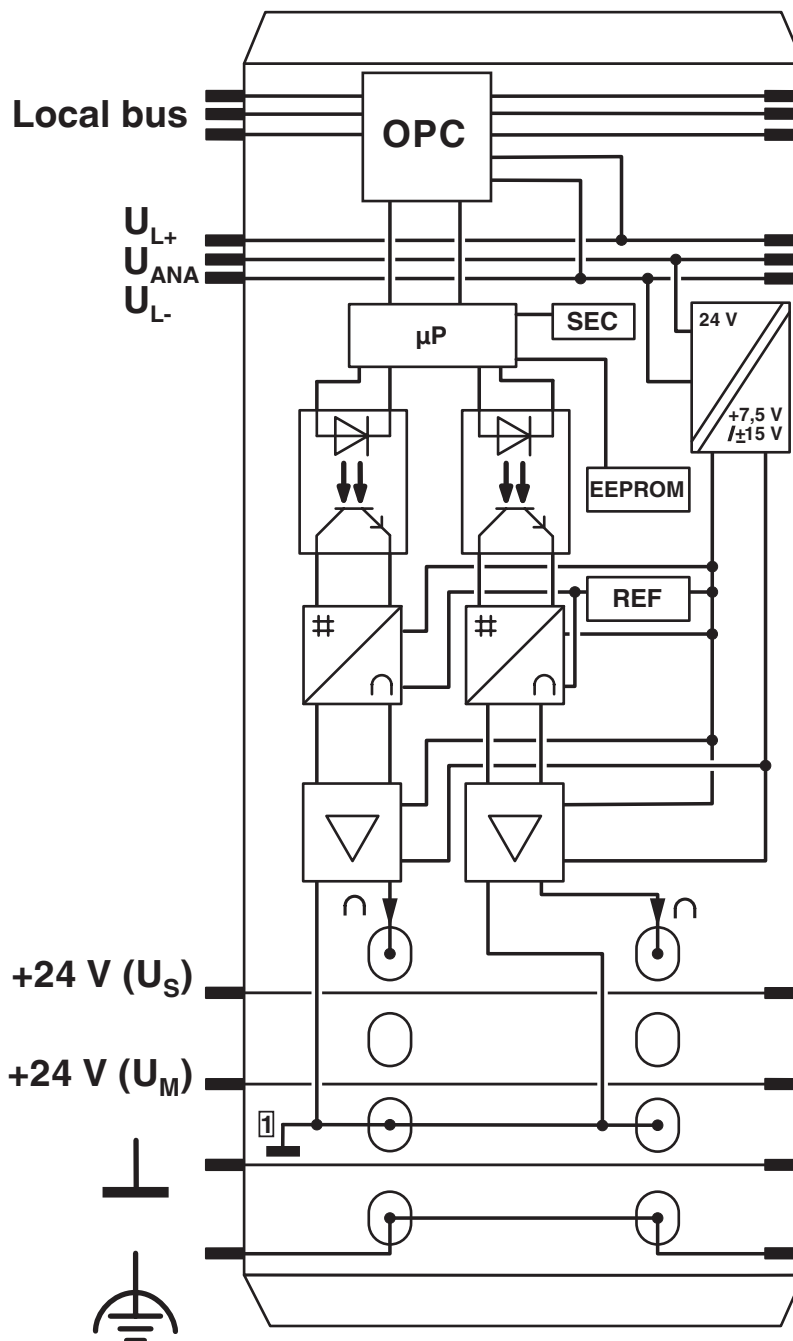
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Block diagram



Internal wiring of the terminal points

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2863957>



**cULus Recognized**

Approval ID: E140324



**cULus Listed**

Approval ID: E199827

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## Classifications

### ECLASS

ECLASS-13.0	27242601
ECLASS-15.0	27242601

### ETIM

ETIM 10.0	EC001596
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### UNSPSC

UNSPSC 21.0	32151600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 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	f0f28736-b58d-4a1b-acd2-8ec95aa0257e

### EF3.1 Climate Change

CO2e kg	9.83 kg CO2e
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