

# IB IL AO 4/8/U/BP-XC-PAC - Analog module



2701164

<https://www.phoenixcontact.com/us/products/2701164>

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The figure shows the standard item

Inline, Analog output terminal, Analog outputs: 8, 0 V ... 10 V, -10 V ... 10 V, 0 V ... 5 V, -5 V ... 5 V, connection technology: 2-conductor, transmission speed in the local bus: 500 kbps, Extreme conditions version, degree of protection: IP20, including Inline connectors and marking fields

## Your advantages

- Coated PCBs
- Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)
- Can be used under extreme ambient conditions
- Bipolar outputs
- Measured value acquisition with 16-bit resolution
- Short-circuit-proof current outputs
- Short update time of < 1 ms

## Commercial data

Item number	2701164
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DR01
Product key	DRI142
GTIN	4046356714273
Weight per piece (including packing)	255.555 g
Weight per piece (excluding packing)	215 g
Customs tariff number	85389091
Country of origin	DE

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## Technical data

### Dimensions

Dimensional drawing	
Width	48.8 mm
Height	136.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

### Interfaces

#### Inline local bus

Connection method	Inline data jumper
Transmission speed	500 kbps
Transmission physics	Copper

### System properties

#### Module

ID code (dec.)	223
ID code (hex)	DF
Length code (hex)	05
Length code (dec)	05
Process data channel	80 bit
Input address area	10 Byte
Output address area	10 Byte
Register length	96 bit
Required parameter data	27 Byte

### Output data

#### Analog:

Output name	Analog outputs
Connection technology	2-conductor
Note regarding the connection technology	shielded
Number of outputs	8
D/A converter resolution	16 bit
Protective circuit	Transient protection of outputs
Data formats	IB IL, IB ST, IB RT, standardized representation, S7 compatible

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Representation of output values	16 bits (15 bits + sign)
Process data update	< 2 ms (depends on operating mode)
Voltage output signal	0 V ... 10 V
	-10 V ... 10 V
	0 V ... 5 V
	-5 V ... 5 V
Load/output load voltage output	> 2 kΩ 0.05 %

## Product properties

Product type	I/O component
Product family	Inline
Type	modular
Scope of supply	including Inline connectors and marking fields
Special properties	Extreme conditions version

## 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 (Standard)
	-40 °C ... 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.)
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)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	10 % ... 95 % (according to DIN EN 61131-2)

## 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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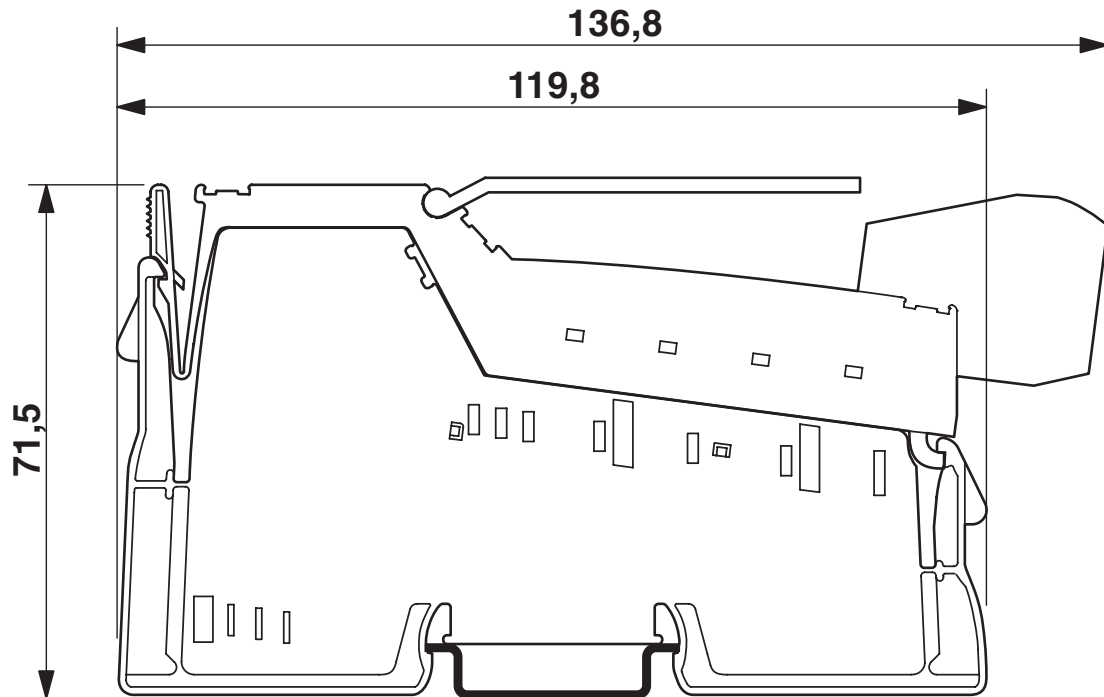


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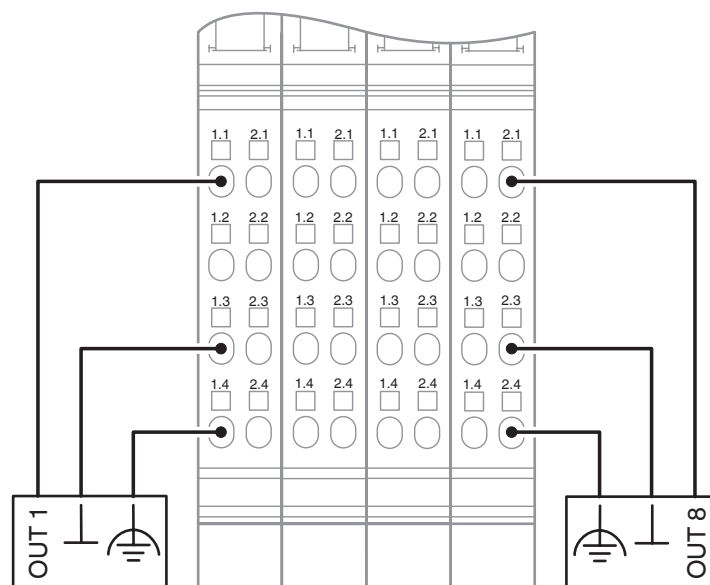
<https://www.phoenixcontact.com/us/products/2701164>

## Drawings

Dimensional drawing



Connection diagram

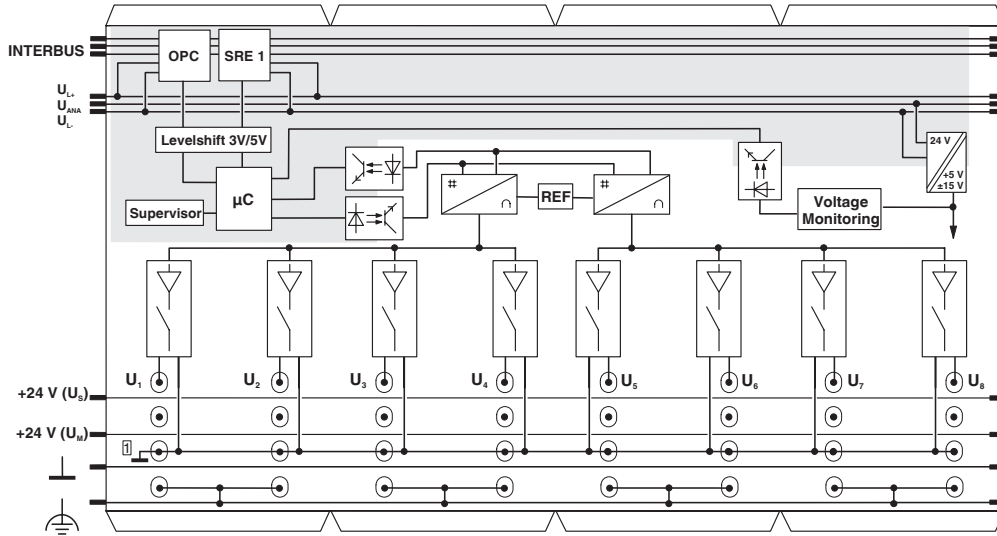


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Block diagram



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## Environmental product compliance

### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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