

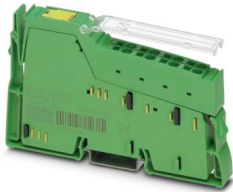
# IB IL AO 2/UI-PAC - Analog module



2700775

<https://www.phoenixcontact.com/us/products/2700775>

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Inline, Analog output terminal, Analog outputs: 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

## Product description

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

## Your advantages

- 2 analog output channels
- Connection of actuators in 2-conductor technology
- Current ranges: 0 mA ... 20 mA, 4 mA ... 20 mA,  $\pm 20$  mA
- Voltage ranges: 0 V ... 10 V,  $\pm 10$  V
- Diagnostic and status indicators

## Commercial data

Item number	2700775
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI142
Catalog page	Page 143 (C-6-2019)
GTIN	4046356639965
Weight per piece (including packing)	89.4 g
Weight per piece (excluding packing)	66 g
Customs tariff number	85389091
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
Note on dimensions	Housing dimensions

### Interfaces

#### Inline local bus

Number of interfaces	2
Connection method	Inline data jumper
Transmission speed	500 kbps
Transmission physics	Copper

### System properties

#### Module

ID code (dec.)	91
ID code (hex)	5B
Length code (hex)	04
Length code (dec)	04
Process data channel	64 bit
Input address area	8 Byte
Output address area	8 Byte
Register length	64 bit
Required parameter data	10 Byte
Required configuration data	5 Byte

### Output data

#### Analog

Output name	Analog outputs
Connection technology	2-conductor
Note regarding the connection technology	shielded
Number of outputs	2
D/A conversion time	typ. 10 µs

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D/A converter resolution	12 bit
Protective circuit	Short-circuit and overload protection; Electronic
	Transient protection; Suppressor diode
Data formats	IB IL, S7-compatible
Representation of output values	12 bits (11 bits + sign bit)
Process data update	bus-synchronous
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Load/output load current output	≤ 450 Ω
Voltage output signal	0 V ... 10 V
	-10 V ... 10 V
Load/output load voltage output	> 1 kΩ
Permissible cable length	max. 250 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

Type	modular
Product type	I/O component
Product family	Inline
Scope of delivery	including Inline connector and labeling field
Diagnostics messages	Failure of the internal I/O supply I/O error message sent to the bus coupler
	I/O supply failure Message in the diagnostic code (in the IB IL format)
	Short circuit/overload of the outputs Message in the diagnostic code (in the IB IL format)
	Configuration invalid Message in the diagnostic code (in the IB IL format)

## 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	max. 1.97 W
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## Potentials

Power consumption	typ. 1.32 W (Nominal voltage load ( $U_{OUT1/2} = 10\text{ V}$ , $R_L = 1\text{ k}\Omega$ ))
	typ. 1.97 W (Nominal current load ( $I_{OUT1/2} = 20\text{ mA}$ , $R_L = 0\ \Omega$ ))

## Potentials: Communications power ( $U_L$ )

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 65 mA
	typ. 55 mA

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## 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. 75 mA (Nominal current load ( $I_{OUT1/2} = 20 \text{ mA}$ , $R_L = 0 \Omega$ ))
	max. 30 mA (No-load)
	typ. 38 mA (Nominal voltage load ( $U_{OUT1/2} = 10 \text{ V}$ , $R_L = 1 \text{ k}\Omega$ ))
	max. 45 mA (Nominal voltage load ( $U_{OUT1/2} = 10 \text{ V}$ , $R_L = 1 \text{ k}\Omega$ ))
	typ. 65 mA (Nominal current load ( $I_{OUT1/2} = 20 \text{ mA}$ , $R_L = 0 \Omega$ ))
	typ. 24 mA (No-load)

## Electrical isolation/isolation of the voltage ranges

Test voltage: 7.5 V supply (bus logics)/24 V analog supply (analog I/O)	500 V AC, 50 Hz, 1 min.
Test voltage: 7.5 V supply (bus logic)/functional ground	500 V AC, 50 Hz, 1 min.
Test voltage: 24 V analog supply (analog I/O)/functional ground	500 V AC, 50 Hz, 1 min.

## Connection data

### Connection technology

Connection name	Inline connector
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### Conductor connection

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

### 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)

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## Standards and regulations

Protection class

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

## Mounting

Mounting type

DIN rail mounting

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## Classifications

### ECLASS

ECLASS-11.0	27242601
ECLASS-12.0	27242601
ECLASS-13.0	27242601

### ETIM

ETIM 9.0	EC001596
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### UNSPSC

UNSPSC 21.0	32151600
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## Environmental product compliance

REACH SVHC

Lead 7439-92-1

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