

I/O module - ILB PB AI4 AO2 - 2878874

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Inline Block IO analog input/output module, PROFIBUS, inputs: 0-20 mA, 4-20 mA, ± 20 mA, 0-5 V, ± 5 V, 0-10 V, ± 10 V, Pt 100, Pt 1000, Ni 1000..., outputs: 0-5 V, ± 5 V, 0-10 V, ± 10 V, 0-20 mA, ± 20 mA, 4-20 mA, 2, 3, 4-conductor connection

Product Description

The multifunctional, analog Inline Block I/O modules can be used universally. The four inputs either offer the difference measured between analog current / voltage signals or the option of connecting resistance thermometers (RTDs). Furthermore, the current or voltage actuators can be connected at the two outputs. In addition, all channels are equipped with shield connections as a standard and are provided with the 2, 3 or 4-conductor system. The analog signals are made available with a resolution of 16 bits.

The plugs can be labeled using hinged labeling fields. The fields have insert cards that can be labeled individually to suit the application. Additionally, there is the proven ZBFM-6... Zack marker strip for labeling the terminal points.

Product Features

- 2 analog outputs (shielded)
- Difference measurement or resistance thermometer (RTD)
- 4 analog inputs (shielded)



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	520.0 g
Custom tariff number	85389091
Country of origin	Germany

Technical data

Note

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

Width	156 mm
Height	141 mm
Depth	57 mm

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Technical data

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 85 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
Air pressure (operation)	80 kPa ... 108 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above mean sea level)
Degree of protection	IP20

General

Mounting type	DIN rail
Net weight	465 g

Interfaces

Fieldbus system	PROFIBUS DP
Designation	Inline local bus
Connection method	D-SUB-9 female connector
Transmission speed	9,6 kBit/s ... 12 MBit/s
Transmission physics	Copper

Inline potentials

Communications power U_L	24 V DC
Power supply at U_L	max. 8 A
Current consumption from U_L	typ. 100 mA
	max. 150 mA (AO-I nominal load)
Segment circuit supply U_S	24 V DC
Power supply at U_S	max. 8 A
Current consumption from U_S	max. 220 mA (Maximum full load)

Analog inputs

Description of the input	Differential input, incl. sensor supply (24 V DC)
Input name	Analog inputs
Number of inputs	max. 4 (Differential inputs, voltage or current can be chosen separately)
Connection method	Spring-cage connection
	2, 3, 4-wire (shielded)
A/D conversion time	typ. 180 µs
Resolution A/D	16 bit
Limit frequency (3 dB)	120 Hz (default for 4.5 ms filter)
	450 Hz (for 1.1 ms filter)
Data formats	IB IL

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Technical data

Analog inputs

Measured value resolution	16 bits (15 bits + sign bit)
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Input resistance current input	typ. 107 Ω
Voltage input signal	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
Input resistance of voltage input	typ. 276 k Ω
Number of inputs	4 (differential inputs, voltage)
Type of protection	Overload protection, short-circuit protection of sensor supply
Voltage input signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
Number of inputs	4 (Differential inputs, current)
Type of protection	Electronic short-circuit protection
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Input resistance current input	typ. 107 Ω
Number of inputs	4
Input name	Analog RTD inputs
Sensor types (RTD) that can be used	Pt 100, Pt 500, Pt 1000, Ni 100, Ni 1000, Ni 1000 L&G
Linear resistance measuring range	0 Ω ... 3200 Ω
	0 Ω ... 9500 Ω
Protective circuit	Overload protection, short-circuit protection of sensor supply

Analog outputs

Number of outputs	2
Connection method	Spring-cage connection
	2-wire (shielded)
Output name	Analog outputs
D/A conversion time	typ. 70 μ s
D/A resolution	16 bit
Type of protection	Short-circuit protection of outputs
Data formats	IB IL
Representation of output values	16 bits (15 bits + sign)

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Technical data

Analog outputs

Process data update	17 ms
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
Load/output load current output	to 500 Ω
Voltage output signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
Load/output load voltage output	> 2 k Ω

Standards and Regulations

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
Connection in acc. with standard	CUL
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

Classifications

eCl@ss

eCl@ss 4.0	27250303
eCl@ss 4.1	27250303
eCl@ss 5.0	27250303
eCl@ss 5.1	27242601
eCl@ss 6.0	27242601
eCl@ss 7.0	27242601
eCl@ss 8.0	27242601

ETIM

ETIM 2.0	EC001431
ETIM 3.0	EC001596
ETIM 4.0	EC001596
ETIM 5.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015



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Classifications

UNSPSC

UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / PROFIBUS / cULus Recognized

Ex Approvals

Approvals submitted

Approval details

UL Recognized 

cUL Recognized 

PROFIBUS

cULus Recognized 

Accessories

Accessories

End block

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Accessories

End clamp - CLIPFIX 35-5 - 3022276



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Plug

Inline shield connector - IB IL SCN 6-SHIELD-TWIN - 2740245



Inline shield connector

Inline shield connector - IB IL SCN-6 SHIELD - 2726353



Inline shield connector

Inline connector - IB IL SCN-8 - 2726337



Connector, for digital 1, 2 or 8-channel Inline terminals

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Accessories

Terminal marking

Insert strip - ESL 62X10 - 0809492

Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems, Plotter: Laser printer, Mounting type: Insert, Lettering field: 62 x 10 mm



Flat zack marker sheet - ZBFM 6/WH:UNBEDRUCKT - 0803618

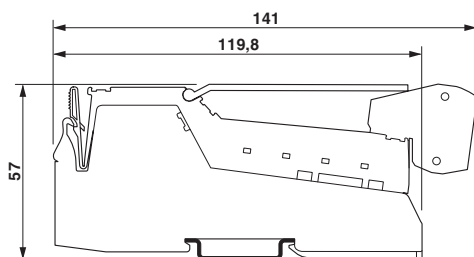
Flat zack marker sheet, Sheet, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5 x 5.5 mm



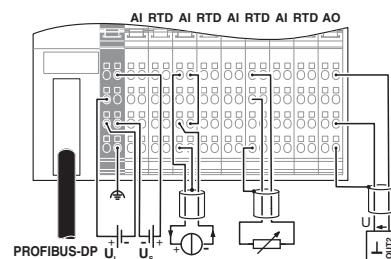
ILB SCN-6-PWR IN-CP/ANALOG - 2897842

Drawings

Dimensional drawing



Connection diagram



Mouser Electronics

Authorized Distributor

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