

Inline terminal - IB IL AI 4/U-PAC - 2700459

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Inline analog input terminal, complete with accessories (connector and labeling field), inputs: 0-10 V, ± 10 V, 2-wire connection method

The figure shows version: IB IL AI 4/I-PAC

Product Features

- 4 analog, bipolar input channels for the connection of voltage signals
- Connection of sensors in 2-wire technology
- Voltage ranges: 0 V ... 10 V, ± 10 V
- Mean-value generation of the inputs
- Process data update of all channels in 250 μ s
- Diagnostic and status indicators



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	80.0 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	12.2 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

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Technical data

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °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)
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)
Degree of protection	IP20

General

Mounting type	DIN rail
Net weight	88 g
Note on weight specifications	with connector
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)
	Overrange or underrange Message in the diagnostic code (in the IB IL format)
	Configuration invalid Message in the diagnostic code (in the IB IL format)

Interfaces

Fieldbus system	Lokalbus
Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kBit/s
Transmission physics	Copper

Power supply for module electronics

Communications power U_L	7.5 V (via voltage jumper)
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Inline potentials

Communications power U_L	7.5 V DC (via voltage jumper)
	typ. 55 mA
I/O supply voltage U_{ANA}	24 V DC
Current consumption from U_{ANA}	typ. 30 mA
Power consumption	typ. 0.94 W (total)

Analog inputs

Input name	Analog inputs
Number of inputs	4 (differential inputs, voltage)
Connection method	Inline connector
	2-wire

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Technical data

Analog inputs

A/D conversion time	max. 6.5 µs
Resolution A/D	12 bit
Limit frequency (3 dB)	300 Hz
Type of protection	Overload protection
Protective circuit/component	±30 V DC, maximum
Data formats	IB IL, S7-compatible
Measured value resolution	12 bits (11 bits + sign bit)
Measured value representation	12 bits (11 bits + sign bit)
Voltage input signal	0 V ... 10 V
	-10 V ... 10 V
Input resistance of voltage input	typ. 324 kΩ
Common mode voltage range signal - ground	max. 50 V
Filtering	None or mean-value generation over 4, 16, or 32 measured values

Standards and Regulations

Conformity with EMC directives	Noise immunity test in accordance with EN 61000-6-2 Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 Criterion B, 6 kV contact discharge, 8 kV air discharge
	Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m
	Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B, 2 kV
	Noise immunity test in accordance with EN 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B, supply lines DC: ±1 kV/±1 kV (symmetrical/asymmetrical), shielded I/O cables: ±1 kV
	Noise immunity test in accordance with EN 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A; Test voltage 10 V
	Noise emission test according to EN 61000-6-3 Radio interference properties EN 55022 Class A
Test section	5 V supply, incoming remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.
	5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.
	7.5 V supply (bus logic), 24 V supply U _{ANA} / I/O 500 V AC 50 Hz 1 min.
	7.5 V supply (bus logic), 24 V supply U _{ANA} /functional earth ground 500 V AC 50 Hz 1 min.
	I/O / functional earth ground 500 V AC 50 Hz 1 min.
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

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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 3.0	EC001596
ETIM 4.0	EC001596
ETIM 5.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed 

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Approvals

cUL Listed 

EAC

cULus Listed 

Accessories

Accessories

Installation terminal block

Connection terminal block - AKG 4 GNYE - 0421029



Connection terminal block, Connection method Screw connection, Cross section: 0.5 mm² - 6 mm², Width: 7 mm, Color: green-yellow

Connection terminal block - AKG 4 BK - 0421032



Connection terminal block, Connection method Screw connection, Cross section: 0.5 mm² - 6 mm², Width: 7 mm, Color: black

Neutral conductor rail

Neutral busbar - NLS-CU 3/10 SN 1000MM - 0402174



PEN conductor busbar, 3mm x 10 mm, length: 1000 mm

Pick-off terminal block

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Accessories

Connection terminal block - AK 4 - 0404017



Connection terminal block, Connection method Screw connection, Cross section: 0.5 mm² - 6 mm², Width: 7 mm, Color: silver

Shield connection clamp

Shield connection terminal block - SK 8 - 3025163



Shield connection clamp, for shield on busbars, contact resistance < 1 mΩ

Shield connection terminal block - SK 14 - 3025176



Shield connection clamp, for shield on busbars, contact resistance < 1 mΩ

Shield connection terminal block - SK 20 - 3025189



Shield connection clamp, for shield on busbars, contact resistance < 1 mΩ

Shield connection terminal block - SK 35 - 3026463



Shield connection clamp, for shield on busbars, contact resistance < 1 mΩ

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Accessories

Support

Support bracket - AB-SK - 3025341

Support bracket for busbars



Support bracket - AB-SK 65 - 3026489

Support bracket, Bracket for busbars, set every 20 cm, Length: 95.5 mm, Width: 6.2 mm, Color: gray



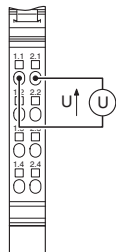
Support bracket - AB-SK/E - 3026476

Support bracket, Bracket for busbars, set every 20 cm, Length: 10 mm, Width: 56 mm, Height: 20 mm, Color: silver



Drawings

Connection diagram



Dimensional drawing

