

Inline terminal - IB IL AI 4/I-PAC - 2700458

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Inline analog input terminal, complete with accessories (connector and labeling field), inputs: 0-20 mA, 4-20 mA, 2-wire connection method

Product Features

- 4 analog differential input channels for connecting current signals
- Connection of sensors in 2-wire technology
- Current ranges: 0 mA ... 20 mA, 4 mA ... 20 mA
- Mean-value generation of the inputs
- Process data update of all channels in 250 µs
- Diagnostic and status indicators



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	95.0 GRM
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

Ambient conditions

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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

Weight	66 g
Note on weight specifications	with connector
Mounting type	DIN rail
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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
Conformance 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 surge voltage (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
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

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Technical data

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)
Current consumption from U_L	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

Number of inputs	4 (differential inputs, current)
Connection method	2-wire
Input name	Analog inputs
A/D conversion time	max. 6.5 μ s
Resolution A/D	12 bit
Data formats	IB IL, S7-compatible
Measured value resolution	13 bits (12 bits + sign bit)
Measured value representation	13 bits (12 bits + sign bit)
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
Filtering	None or mean-value generation over 4, 16, or 32 measured values
Number of inputs	4 (differential inputs, current)
Open circuit response	Going to 0 mA; open-circuit detection from 4 mA ... 20 mA

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

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Classifications

eCl@ss

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

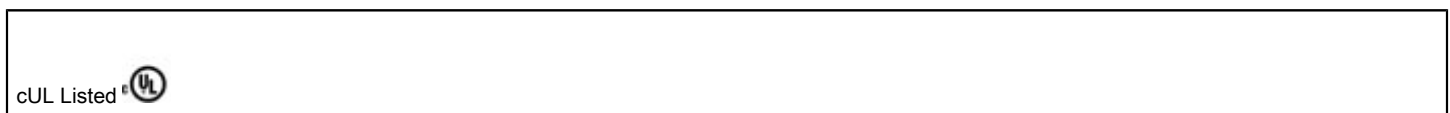
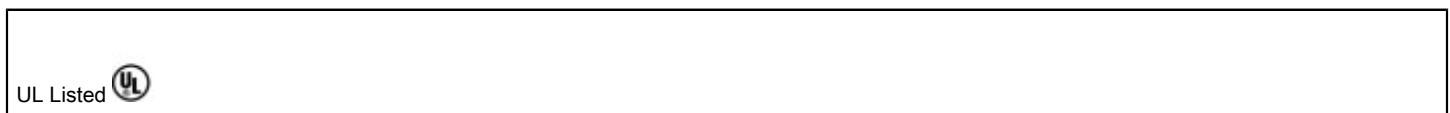
Approvals

UL Listed / cUL Listed / cUL Listed / cULus Listed / cULus Listed / cULus Listed / null / null / null / null

Ex Approvals

Approvals submitted

Approval details



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Approvals

cUL Listed

cULus Listed

cULus Listed

cULus Listed

Accessories

Accessories

Installation terminal block

Connection terminal block - AKG 4 GNYE - 0421029



Connection terminal block, Connection method Screw connection, Load current : 41 A, Cross section: 0.5 mm² - 6 mm², Width: 7 mm, Color: green-yellow

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Accessories

Connection terminal block - AKG 4 BK - 0421032



Connection terminal block, Connection method Screw connection, Load current : 41 A, 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

Connection terminal block - AK 4 - 0404017



Connection terminal block, Connection method Screw connection, Load current : 41 A, 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 mOhm

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Accessories

Shield connection terminal block - SK 14 - 3025176



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

Shield connection terminal block - SK 20 - 3025189



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

Shield connection terminal block - SK 35 - 3026463



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

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

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Accessories

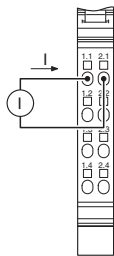
Support bracket - AB-SK/E - 3026476

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



Drawings

Connection diagram



Dimensioned drawing

