

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

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Inline, Analog input terminal, Analog inputs: 4, 0 V ... 10 V, -10 V ... 10 V, connection method: 2-wire, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector and labeling field

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

### Why buy this product

- 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 µs
- Diagnostic and status indicators



### Key Commercial Data

Packing unit	1 STK
GTIN	
GTIN	4046356566537

### 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

Ambient temperature (operation)	-25 °C ... 55 °C
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## Technical data

### Ambient conditions

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
Diagnosics 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

Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kbps
Transmission physics	Copper

### Inline potentials

Designation	Communications power ( $U_L$ )
Supply voltage	7.5 V DC (via voltage jumper)
Current consumption	typ. 55 mA
	max. 60 mA
Designation	Supply of analog modules ( $U_{ANA}$ )
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	typ. 30 mA
	max. 35 mA
Power consumption	typ. 0.94 W (total)

### Analog inputs

Input name	Analog inputs
Number of inputs	4
Connection method	Inline connector
Connection technology	2-wire
A/D conversion time	max. 6.5 $\mu$ s
Resolution A/D	12 bit

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## Technical data

### Analog inputs

Limit frequency (3 dB)	300 Hz
Type of protection	Overload protection
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

### Electrical isolation

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.

### Standards and Regulations

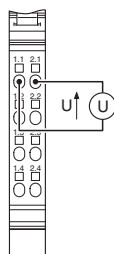
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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### Environmental Product Compliance

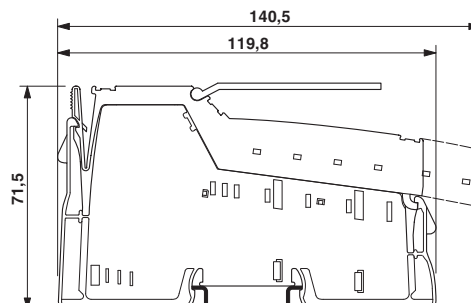
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Connection diagram



Dimensional drawing



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## Approvals

### Approvals

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#### Approvals





UL Listed / cUL Listed / EAC / cULus Listed

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#### Ex Approvals

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### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
EAC			EAC-Zulassung
cULus Listed			

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