

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

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Inline analog input terminal, complete with accessories (plug 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

- High measuring accuracy
- Excellent interference suppression and common mode rejection
- Integrated short-circuit-proof sensor supply
- Overload-protected current inputs

## Key commercial data

<b>package_quantity</b>	1
<b>GTIN</b>	4046356566537

## Technical data

Note:

<b>Utilization restriction</b>	EMC: class A product, see manufacturer's declaration in the download area
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### Dimensions

<b>Width</b>	12.2 mm
<b>Height</b>	119.8 mm
<b>Depth</b>	71.5 mm
<b>Note on dimensions</b>	Housing dimensions

### Ambient conditions

<b>Ambient temperature (operation)</b>	-25 °C ... 55 °C
<b>Ambient temperature (storage/transport)</b>	-25 °C ... 85 °C
<b>Permissible humidity (operation)</b>	10 % ... 95 % (according to DIN EN 61131-2)
<b>Permissible humidity (storage/transport)</b>	10 % ... 95 % (according to DIN EN 61131-2)
<b>Air pressure (operation)</b>	70 kPa ... 106 kPa (up to 3000 m above sea level)
<b>Air pressure (storage/transport)</b>	70 kPa ... 106 kPa (up to 3000 m above sea level)
<b>Degree of protection</b>	IP20

### General

<b>Weight</b>	66 g
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## Technical data

### General

<b>Note on weight specifications</b>	With connector
<b>Mounting type</b>	DIN rail
<b>Protection class</b>	III, IEC 61140, EN 61140, VDE 0140-1
<b>Test section</b>	5 V supply, incoming remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min
<b>Test section</b>	5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min
<b>Test section</b>	7.5 V supply (bus logic), 24 V supply $U_{ANA}$ / I/O 500 V AC 50 Hz 1 min
<b>Test section</b>	7.5 V supply (bus logic), 24 V supply $U_{ANA}$ /functional earth ground 500 V AC 50 Hz 1 min
<b>Test section</b>	I/O / functional earth ground 500 V AC 50 Hz 1 min
<b>Conformance with EMC directives</b>	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
<b>Conformance with EMC directives</b>	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
<b>Conformance with EMC directives</b>	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
<b>Conformance with EMC directives</b>	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: $\pm 1$ kV/ $\pm 1$ kV (symmetrical/asymmetrical); shielded I/O cables: $\pm 1$ kV
<b>Conformance with EMC directives</b>	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
<b>Conformance with EMC directives</b>	Noise emission test according to EN 61000-6-3 Radio interference properties EN 55022 Class A
<b>Diagnostics messages</b>	Failure of the internal I/O supply I/O error message sent to the bus coupler
<b>Diagnostics messages</b>	I/O supply failure Message in the diagnostic code (in the IB IL format)
<b>Diagnostics messages</b>	Overrange or underrange Message in the diagnostic code (in the IB IL format)
<b>Diagnostics messages</b>	Configuration invalid Message in the diagnostic code (in the IB IL format)

### Interfaces

<b>Fieldbus system</b>	Lokalbus
<b>Name</b>	Inline local bus
<b>Connection method</b>	Inline data jumper
<b>Transmission speed</b>	500 kBit/s
<b>Transmission physics</b>	Copper

### Power supply for module electronics

<b>Communications power <math>U_L</math></b>	7.5 V (via voltage jumper)
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### Inline potentials

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### Technical data

#### 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, voltage)
Connection method	2-wire
Input name	Analog inputs
A/D conversion time	max. 6.5 $\mu$ s
Resolution A/D	12 bit
Type of protection	Overload protection
Protective circuit/component	$\pm$ 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
Voltage input signal	-10 V ... 10 V
Filtering	None or mean-value generation over 4, 16, or 32 measured values
Number of inputs	4 (differential inputs, voltage)
Open circuit response	Goes to 0 V
Voltage input signal	0 V ... 10 V (Default)
Voltage input signal	-10 V ... 10 V
Input resistance of voltage input	typ. 324 k $\Omega$
Common mode voltage range signal - ground	max. 50 V

### 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

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## classifications

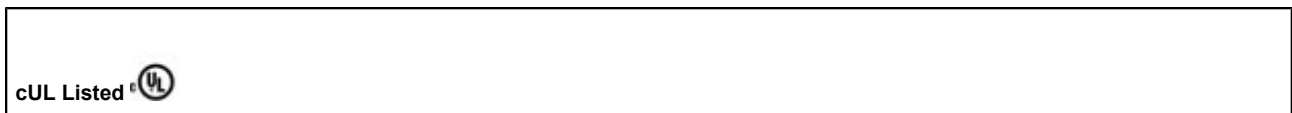
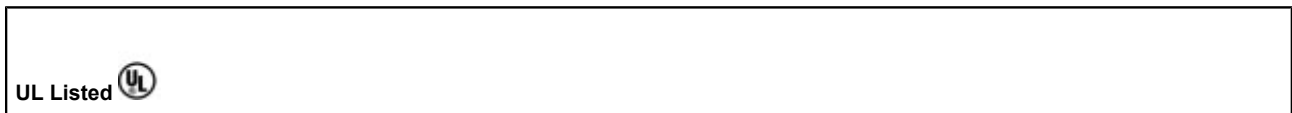
### UNSPSC

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

## approvals

UL Listed / cUL Listed / cULus Listed /

### Approval details



## accessories

### Shield connection clamp

SK 8 - 3025163



SK 14 - 3025176



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### accessories

SK 20 - 3025189



SK 35 - 3026463



### Support

AB-SK - 3025341



AB-SK 65 - 3026489



AB-SK/E - 3026476



### Neutral conductor rail

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accessories

NLS-CU 3/10 SN 1000MM - 0402174



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### Pick-off terminal block

AK 4 - 0404017



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### Installation terminal block

AKG 4 GNYE - 0421029



AKG 4 BK - 0421032

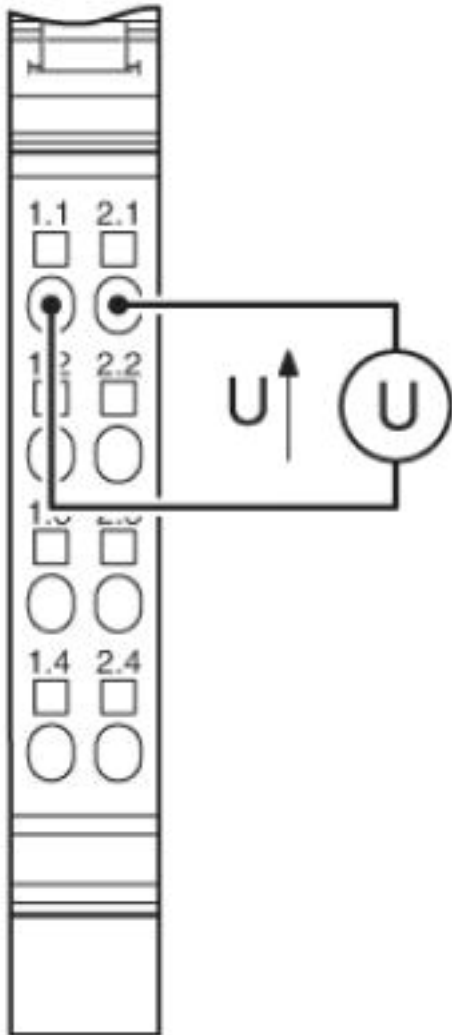


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Drawings

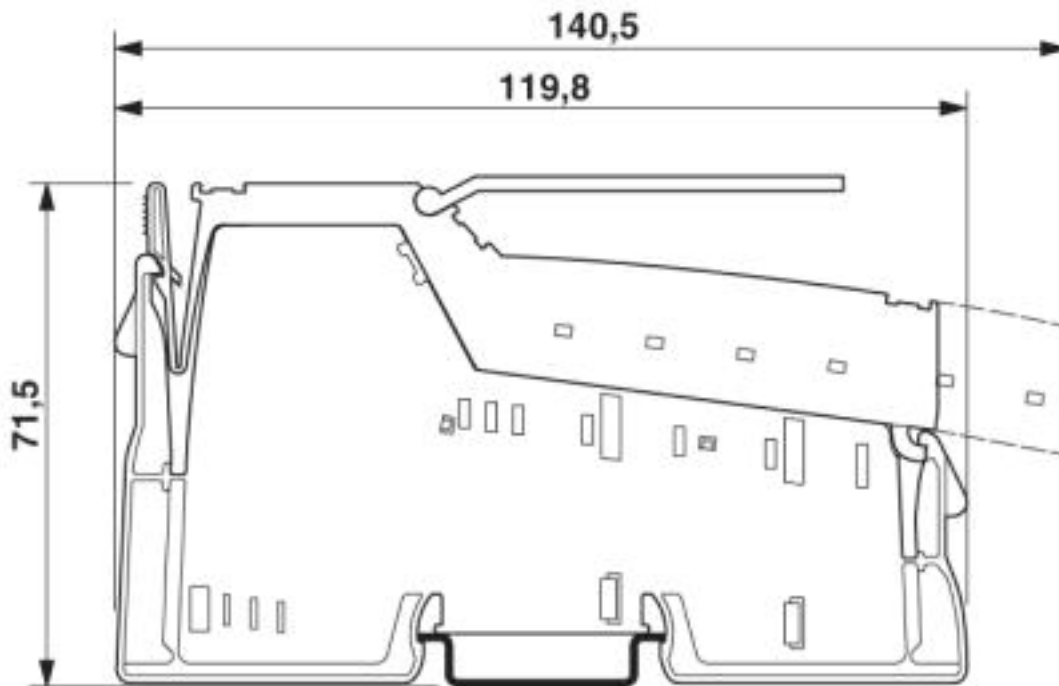
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Connection diagram



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

Dimensioned drawing



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