


**IB IL AI 8/SF**

Order No.: 2727831

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2727831>

Inline analog input terminal, without accessories, 8 inputs, 0-20 mA, 4-20 mA,  $\pm 20$  mA, 0-10 V,  $\pm 10$  V, (also 0-40 mA,  $\pm 40$  mA, 0-5 V,  $\pm 5$  V, 0-25 V,  $\pm 25$  V, 0-50 V), 2-conductor connection method

**Commercial data**

GTIN (EAN)	 4 017918 818425
sales group	K412
Pack	1 pcs.
Customs tariff	85389091
Catalog page information	Page 73 (AX-2007)

**Product notes**

WEEE/RoHS-compliant since:  
07/10/2007



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**Product description**

The analog Inline input terminals are suited for connecting conventional sensors for the acquisition of current and voltage signals.

Particular features of the modules are:

- High accuracy of measurement
- Extremely rapid acquisition of measurement values
- Excellent noise suppression and common mode rejection, and
- Measurement value acquisition with a resolution of 16 bits

It goes without saying that you also have advantages in handling with the analog Inline input terminals, such as multi-wire connection or the automatic contact with the grounding conductor when the terminal is snapped onto the DIN rail.

The Inline terminals 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 strip for labeling the terminal points.

## Technical data

### General data

Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm
Weight	213 g
Mounting type	DIN rail
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
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

### Interface

Name	Inline local bus
Type of connection	Inline data jumper
Transmission speed	500 kbps
	500 kBit/s
Transmission physics	Copper

### Inline potential routing

Communications power $U_L$	7.5 V DC (via voltage jumper)
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Current consumption from $U_L$	max. 55 mA
	Typ. 48 mA
I/O supply voltage $U_{ANA}$	24 V DC
Current consumption from $U_{ANA}$	max. 35 mA
	Typ. 30 mA

**Analog inputs**

Number of inputs	max. 8 (single ended)
Connection method	2-wire (shielded)
Input name	Analog inputs
A/D conversion time	Approx. 10 $\mu$ s
Limit frequency (3 dB)	3.5 kHz
Data formats	IL, IB ST, IB RT, standardized representation, PIO format
Measuring principle	Successive approximation
Measured value resolution	16 bits (15 bits + sign)
Measured value representation	16-bit two's complement
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
	0 mA ... 40 mA
	-40 mA ... 40 mA
Voltage input signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
	0 V ... 25 V
	-25 V ... 25 V
	0 V ... 50 V
Number of inputs	8 (single-ended voltage inputs)
Voltage input signal	0 V ... 5 V
	-5 V ... 5 V
	0 V ... 10 V
	-10 V ... 10 V
	0 V ... 25 V
	-25 V ... 25 V
	0 V ... 50 V

Input resistance of voltage input	> 240 kΩ 0.01 %
Number of inputs	8 (single-ended current inputs)
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
	-20 mA ... 20 mA
	0 mA ... 40 mA
	-40 mA ... 40 mA
Input resistance current input	25 Ω 0.01 %

### Certificates / Approvals



Certification ABS, BV, CUL, DNV, GL, GOST, LR, UL

Certification Ex: PxC-EX

### Accessories

Item	Designation	Description
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#### Marking

0809502	ESL 62X46	Insert strip for laser printer, lettering field: 62 x 46 mm
0809502	ESL 62X46	Insert strip for laser printer, lettering field: 62 x 46 mm
2727501	IB IL FIELD 2	Labeling field, width: 12.2 mm
2727515	IB IL FIELD 8	Labeling field, width: 48.8 mm

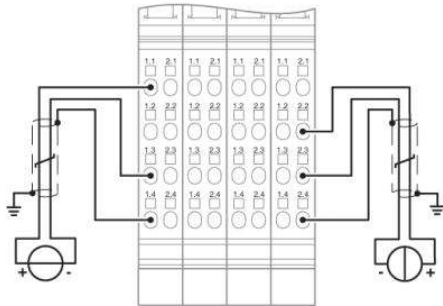
#### Plug/Adapter

2740245	IB IL SCN 6-SHIELD-TWIN	Inline shield connector
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**Diagrams/Drawings**

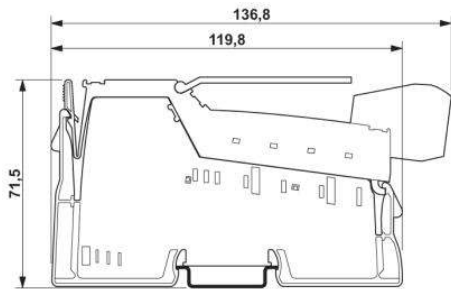
Connection diagram

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Dimensioned drawing

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