

IB IL AI 8-I/S - Inline terminal



2742748

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Inline analog input terminal, without accessories, 8 inputs, 0 - 20 mA, 4 - 20 mA, 0 - 40 mA, ± 20 mA, ± 40 mA, 2-, 3-conductor connection technology

The figure shows version IB IL AI 8/SF

Product description

The terminal is designed for use within an Inline station. It is used to acquire analog current signals from active and passive sensors. Features - Eight analog single-ended signal inputs for the connection of active and passive current sensors - Connection of sensors in 2 and 3-conductor technology - Provision of a short-circuit protected supply voltage for passive sensors (UiS; default 24 V) - Various current measuring ranges - Channels are configured independently of one another via INTERBUS - Measured values can be represented in five different formats - 16-bit analog/digital converter - Diagnostic indicators

Commercial data

Item number	2742748
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DRI141
GTIN	4017918876623
Weight per piece (including packing)	158.05 g
Weight per piece (excluding packing)	131.06 g
Customs tariff number	85389091
Country of origin	DE

Technical data

Product properties

Type	modular
	Inline

System properties

Programming data

Length code (hex)	02
ID code (dec.)	95
Length code (dec)	02
Process data channel	32 bit
Input address area	4 Byte
Output address area	4 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	32 bit

Fieldbus data telegram

Required parameter data	6 Byte
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Electrical properties

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 65 mA
	typ. 52 mA

Potentials: 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 draw	max. 40 mA
	typ. 31 mA

Potentials: Main circuit supply (U_M)

Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 200 mA

Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply, incoming remote bus/7.5 V supply (bus logics)	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply, outgoing remote bus/7.5 V supply (bus logics)	500 V AC, 50 Hz, 1 min
Test voltage: 7.5 V supply (bus logic), 24 V supply U_{ANA} / I/O	500 V AC, 50 Hz, 1 min
Test voltage: 7.5 V supply (bus logic), 24 V supply U_{ANA} / functional ground	500 V AC, 50 Hz, 1 min

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Test voltage: I/O/functional ground	500 V AC, 50 Hz, 1 min
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Input data

Analog: General

Input name	Analog inputs
Number of inputs	max. 8 (single ended)
A/D conversion time	approx. 10 μ s
Connection technology	2-conductor (shielded)
Current input signal	0 mA ... 20 mA 4 mA ... 20 mA -20 mA ... 20 mA 0 mA ... 40 mA -40 mA ... 40 mA
Data formats	IBS IL, IBS ST, IBS RT, standardized representation, PIO format
Limit frequency (3 dB)	3.5 kHz
Measuring principle	Successive approximation
Measured value resolution	16 bits (15 bits + sign bit)
Measured value representation	16 bit two's complement

Analog: Current inputs

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 %

Connection data

Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm ² ... 1.5 mm ²
Conductor cross-section, flexible	0.08 mm ² ... 1.5 mm ²
Conductor cross-section AWG	28 ... 16

Interfaces

Inline local bus

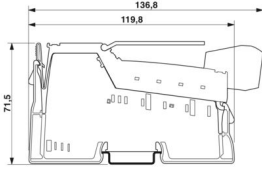
No. of channels	8
Connection method	Inline data jumper
Transmission speed	500 kbps
Transmission physics	Copper

Dimensions

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Dimensional drawing	
Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm

Material specifications

Color	green
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Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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Mounting

Mounting type	DIN rail mounting
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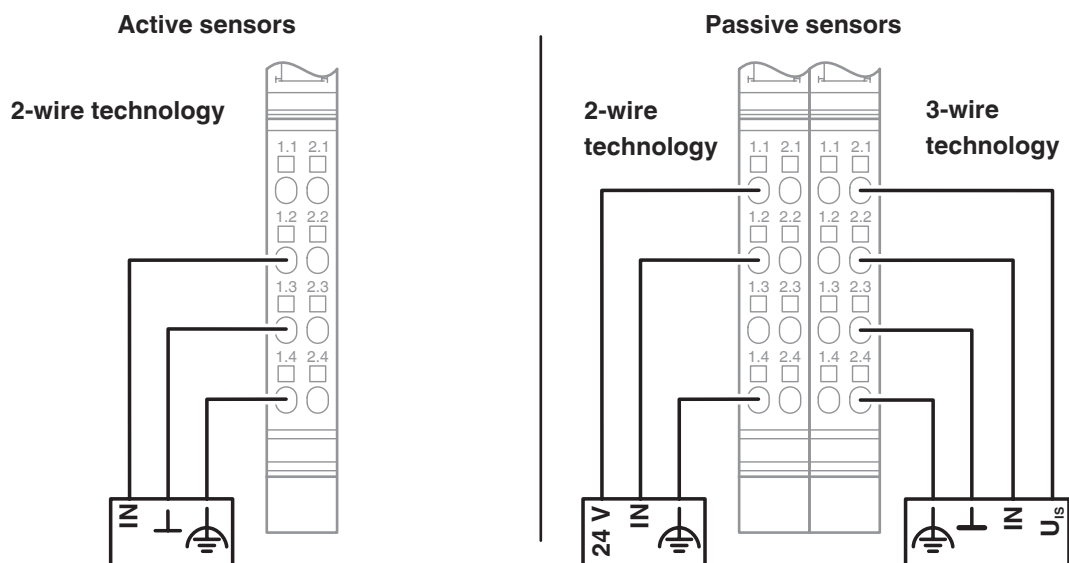
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Drawings

Dimensional drawing



Connection diagram

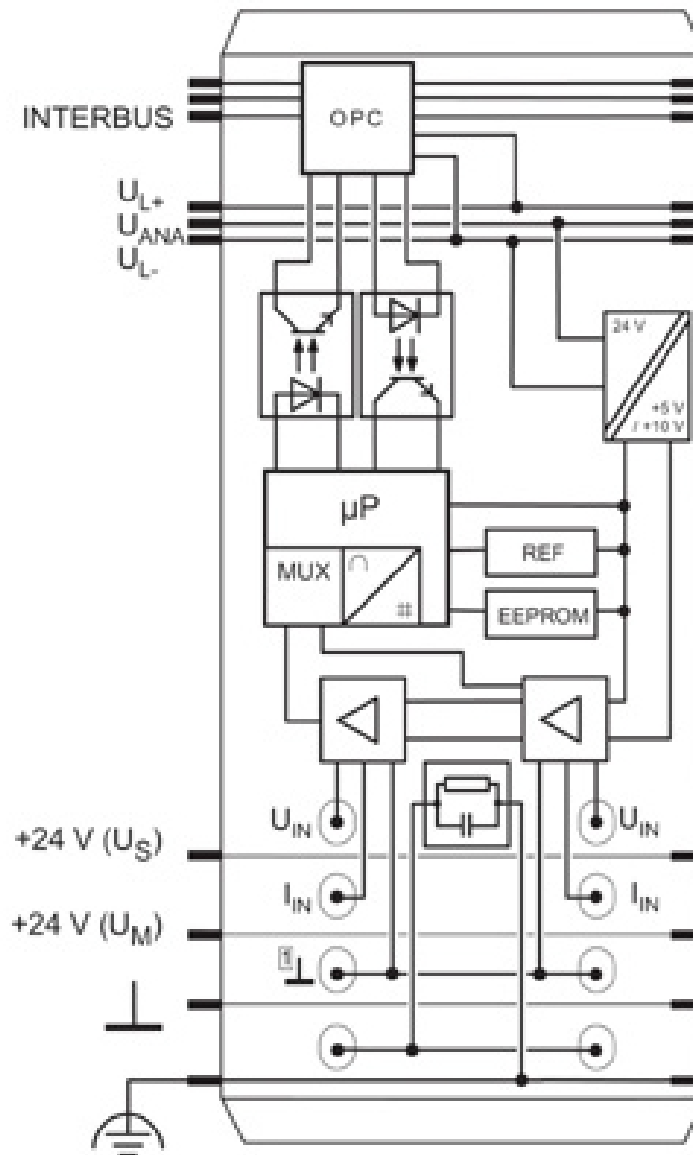


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Block diagram



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Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	
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	No substance above 0.1 wt%
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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com