

Inline terminal - IB IL AI 2-HART-PAC - 2862149

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Inline, Analog input terminal, Analog inputs: 2, 4 mA ... 20 mA, 0 mA ... 25 mA, connection method: 2-wire, transmission speed in the local bus: 500 kbps, HART functionality, HART protocol transmission, degree of protection: IP20, including Inline connectors and marking fields

Product Description


The terminal is designed for use within an Inline station. It allows communication with smart field devices using the standardized communication protocols INTERBUS and HART. It provides both analog and digital communication. The analog signal transmits the process information. The modulated digital signal enables bidirectional communication to the sensor (with HART capabilities) at the same time.

Your advantages

- ✓ Two differential signal inputs for current sensors
- ✓ Connection of sensors in 2-wire technology (active and passive sensors)
- ✓ Current ranges: 4 mA ... 20 mA, 0 mA ... 25 mA
- ✓ Both channels preset to the 4 mA ... 20 mA measuring range and IB IL format
- ✓ Transmission of the HART protocol with PCP
- ✓ Measured values can be represented in three different formats
- ✓ Resolution depends on the representation format and the measuring range
- ✓ Measured value acquisition with 16-bit resolution
- ✓ Point-to-point and multi-drop connections possible
- ✓ A hand-held operator panel can be connected
- ✓ A maximum of 5 HART devices can be connected per channel
- ✓ Polling and burst modes
- ✓ FDT/DTM support



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 918835
GTIN	4017918918835

Technical data

Note

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Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	48.8 mm
Height	135 mm
Depth	71.5 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
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
Color	green
Net weight	134 g
Operating mode	Process data operation with 2 words, PCP with 2 words
Diagnostics messages	Failure of the internal I/O supply Yes
	I/O error Error message in the process data
	User error Error message in the process data

Interfaces

Designation	Inline local bus
No. of channels	2
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. 95 mA
	max. 110 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. 50 mA
	max. 150 mA
Power consumption	typ. 1.9 W

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Technical data

Analog inputs

Description of the input	Differential inputs, current
Input name	Analog inputs
Number of inputs	2
Connection method	Inline shield connector
Connection technology	2-wire
Note regarding the connection technology	shielded
A/D conversion time	approx. 10 µs (bus-synchronous)
A/D converter resolution	16 bit
Limit frequency (3 dB)	25 Hz
Type of protection	Surge protection
Data formats	IB IL, standardized representation, PIO
Measuring principle	Successive approximation
Measured value resolution	16 bits (15 bits + sign bit)
Measured value representation	16 bit two's complement
Current input signal	4 mA ... 20 mA
	0 mA ... 25 mA
Input resistance current input	250 Ω
Common mode voltage range signal - ground	40 V (Between current input and functional ground)

Electrical isolation

Test section	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 ground 500 V AC 50 Hz 1 min.
	I/O/functional ground 500 V AC 50 Hz 1 min.

Standards and Regulations

Connection in acc. with standard	CUL
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

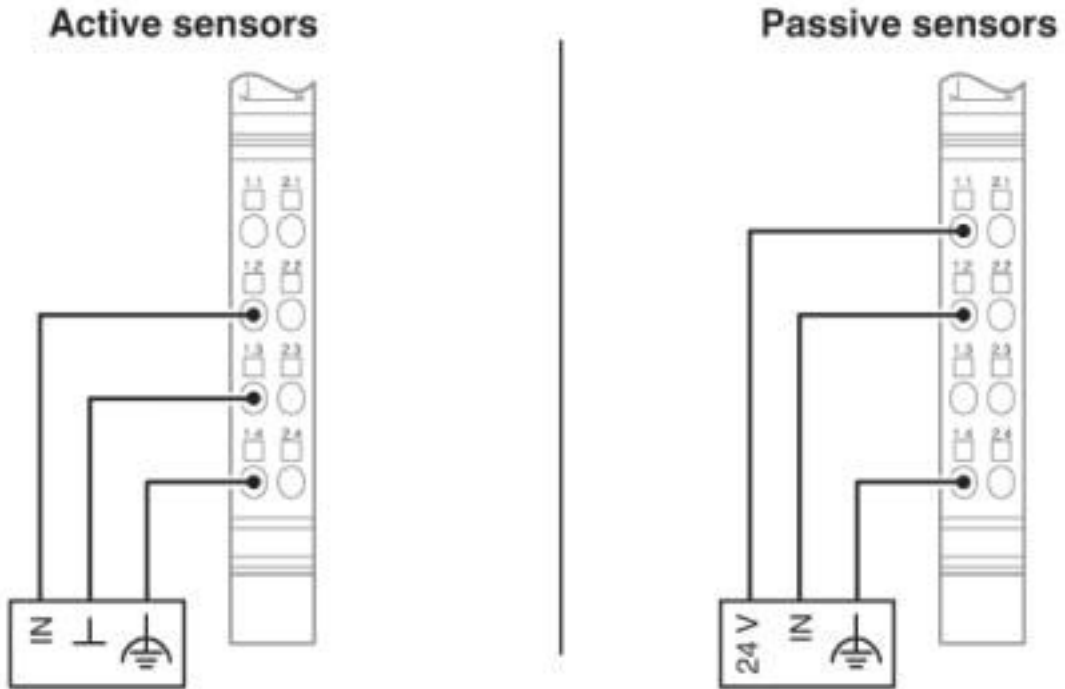
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Drawings

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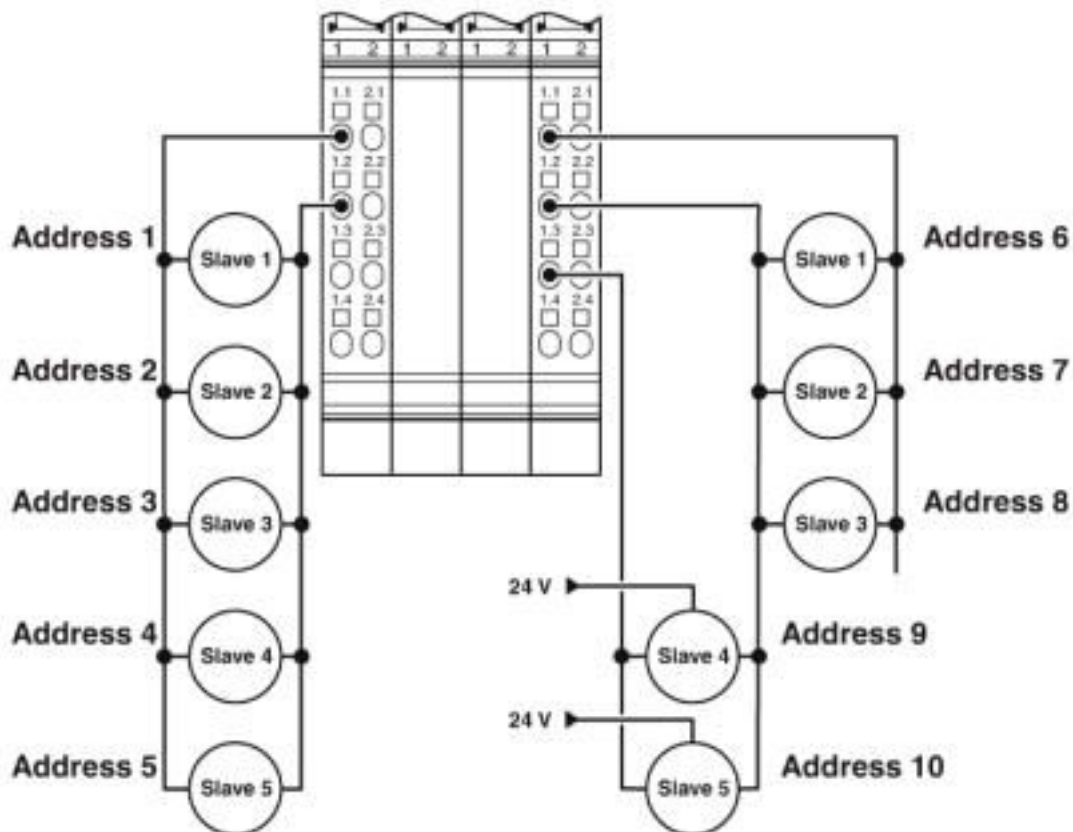
Connection diagram



Connection of active and passive sensors (slaves) in 2-conductor technology with shield connection

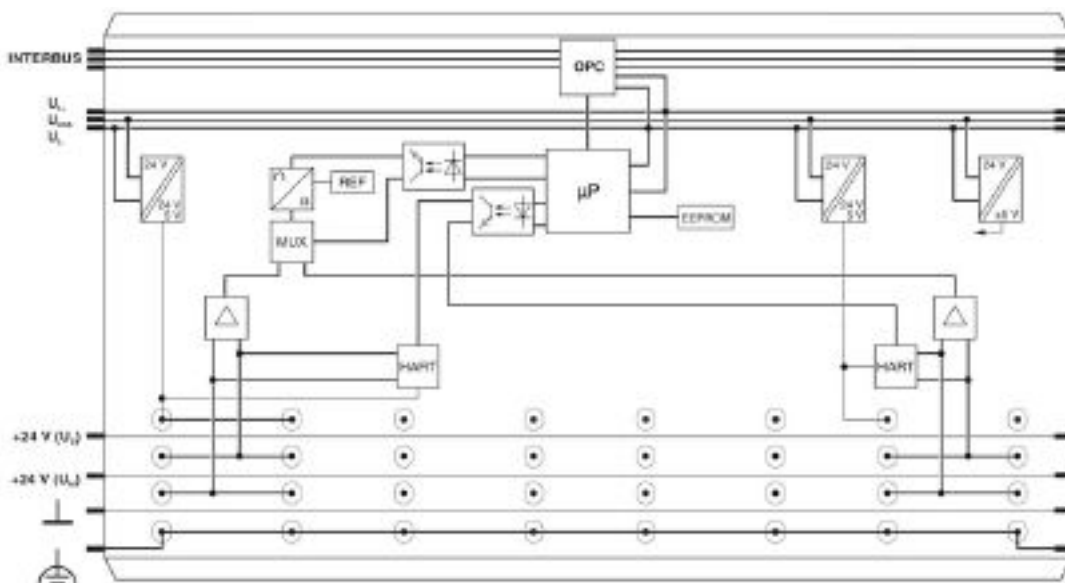
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Connection diagram



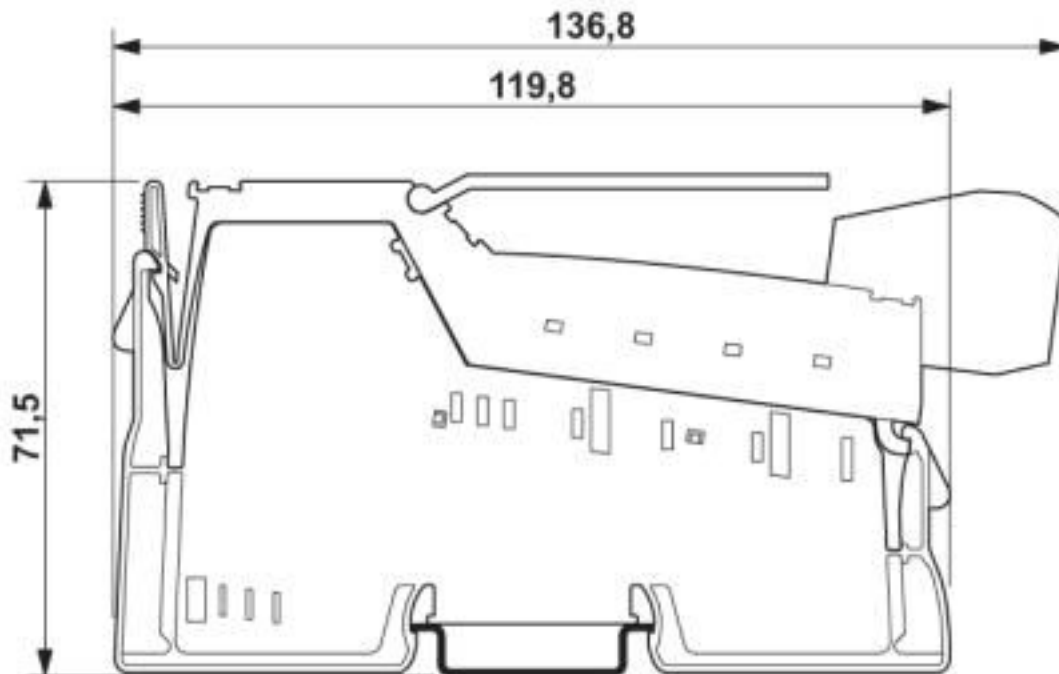
Connection of sensors (slaves) in a multidrop network

Block diagram



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Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27242601
eCl@ss 4.0	27250300
eCl@ss 4.1	27250300
eCl@ss 5.0	27250300
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242601
eCl@ss 8.0	27242601
eCl@ss 9.0	27242601

ETIM

ETIM 2.0	EC001431
ETIM 3.0	EC001596
ETIM 4.0	EC001596
ETIM 5.0	EC001596
ETIM 6.0	EC001596
ETIM 7.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404

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Classifications

UNSPSC

UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / ATEX / UL Listed / cUL Listed

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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cULus Recognized			
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Accessories

Accessories

Device parameterization

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Accessories

Software - AX+ BASIC - 2985068



Software CD for FDT container for integrating device DTMs (free download)

Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Plug

Inline shield connector - IB IL SCN 6-SHIELD-TWIN - 2740245



Inline shield connector

Inline shield connector - IB IL SCN-6 SHIELD - 2726353



Inline shield connector

Programming

Software - AX DTM LIB - 2988065



DTM library

Terminal marking

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Accessories

Insert strip - ESL 62X10 - 0809492



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72

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