

## Inline terminal - IB IL AI 8/SF-XC-PAC - 2701159

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Inline XC, Analog input terminal, Analog inputs: 8, 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, 0 mA ... 20 mA, 4 mA ... 20 mA, -20 mA ... 20 mA, 0 mA ... 40 mA, -40 mA ... 40 mA, connection method: 2-wire, transmission speed in the local bus: 500 kbps, Extreme conditions version, degree of protection: IP20, including Inline connectors and marking fields

The figure shows the standard item

### Product Description


The terminal is designed for use within an Inline station. It is used to acquire analog voltage and current signals.

### Your advantages

- Can be used under extreme ambient conditions
- Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)
- Coated PCBs
- High measuring accuracy



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 713849
GTIN	4046356713849
Weight per Piece (excluding packing)	260.000 g
Custom tariff number	85389091
Country of origin	Germany

### Technical data

#### Dimensions

Width	48.8 mm
Height	136.8 mm
Depth	71.5 mm

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## Technical data

### Dimensions

Note on dimensions	Housing dimensions
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### Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C (Standard)
	-40 °C ... 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.)
Ambient temperature (storage/transport)	-40 °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
Color	green
Net weight	213 g
Note on weight specifications	with connectors

### 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. 48 A
	max. 55 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. 24 mA
	max. 35 mA

### Analog inputs

Description of the input	Single-ended inputs, voltage or current
Input name	Analog inputs
Number of inputs	8

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### Technical data

#### Analog inputs

Connection method	Inline shield connector
Connection technology	2-wire
Note regarding the connection technology	shielded
A/D conversion time	approx. 10 $\mu$ s
A/D converter resolution	16 bit
Limit frequency (3 dB)	3.5 kHz
Type of protection	Surge protection, overcurrent protection
Data formats	IB IL, IB ST, IB RT, standardized representation, PIO format
Measuring principle	Successive approximation
Measured value resolution	16 bits (15 bits + sign bit)
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
Input resistance current input	25 $\Omega$ (Shunt)
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 k $\Omega$
Filtering	1st order low pass

#### 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 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
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## Technical data

### Standards and Regulations

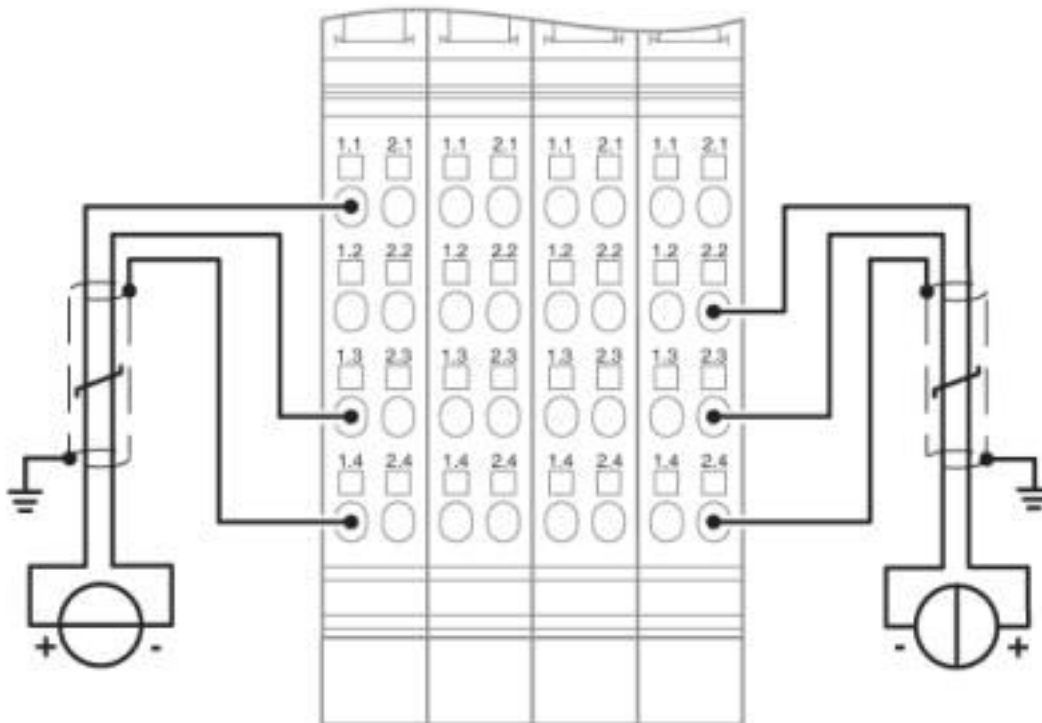
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

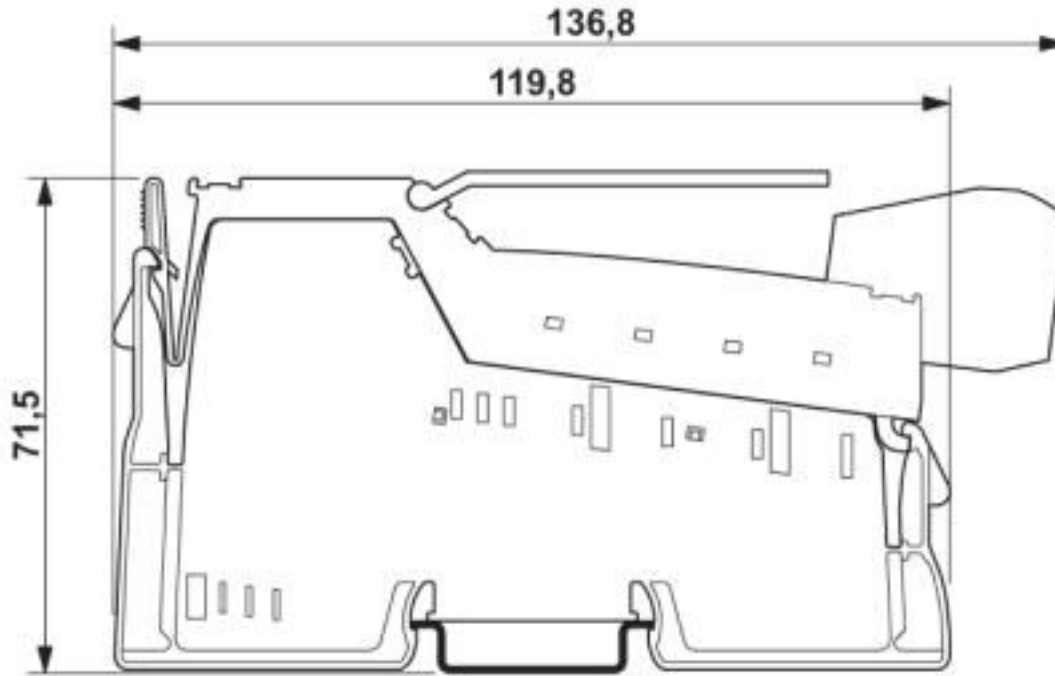
## Drawings

Connection 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 3.0	EC001596
ETIM 4.0	EC001599
ETIM 5.0	EC001596
ETIM 6.0	EC001596
ETIM 7.0	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	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

## Accessories

### Accessories

#### Labeling panel

Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm



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



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### Accessories

#### Terminal marking

Insert strip - ESL 62X46 - 0809502

Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 46 mm, Number of individual labels: 120



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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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