

Inline terminal - IB IL SGI 2/F-PAC - 2878638

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Inline analog strain gauge input terminal, complete with accessories (connector and labeling field), 2 fast inputs, 4, 6-conductor connection method

Product description

The terminal is designed for use within an Inline station.

This terminal is a fast input module used to connect load cells, force transducers, mass pressure transducers, and similar devices based on strain gauges.

The strain gauges can be connected using 6 or 4-wire technology.

The strain gauge output signals are measured in each bus cycle and updated in the process data (bus-synchronous process data update).

The terminal is suitable for control applications with increased speed requirements.

There are two options for data exchange:

- Via process data (both inputs in one bus cycle)
- Via PCP Compact (both inputs in the "Analog Values" PCP object)


The measured values are represented by standardized 16-bit values.

Why buy this product

- 2 fast inputs for strain gauge
- Connection of the strain gauges with 6- and 4-wire technology
- Sensor supply voltage provided by the terminal, no external power supply required
- Communication either via process data or parameter channel (PCP)
- Channels are parameterized independently of one another via the bus system
- Bus-synchronous process data update
- Diagnostic and status indicators
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Key commercial data

Packing unit	1 pc
GTIN	 4 017918 996406
Weight per Piece (excluding packing)	190.0 g
Custom tariff number	85389091
Country of origin	Germany

Technical data

Note

Inline terminal - IB IL SGI 2/F-PAC - 2878638

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	136 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 % (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

Net weight	190 g
Mounting type	DIN rail
Operating mode	Process data operation with 3 words, PCP with 1 word
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
Test section	Logic/analog I/O (digital isolator) 500 V AC 50 Hz 1 min
	Functional earth ground/analog I/O (isolating distance) 500 V AC 50 Hz 1 min
	Logic/functional earth ground (isolating distance) 500 V AC 50 Hz 1 min
Diagnostics messages	Failure of the power supply at U_{ANA} Error message in the process data
	Failure of or insufficient communications power U_L I/O error message sent to the bus coupler
	Peripheral fault Error message in the process data

Interfaces

Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kBit/s
Transmission physics	Copper

Inline potentials

Communications power U_L	7.5 V DC
Current consumption from U_L	max. 85 mA
	typ. 75 mA
I/O supply voltage U_{ANA}	24 V DC
Current consumption from U_{ANA}	typ. 32 mA (with maximum load of 58.3 Ω when $U_V = 5$ V)
	typ. 8 mA (Without strain gauge)

Inline terminal - IB IL SGI 2/F-PAC - 2878638

Technical data

Inline potentials

Power consumption	typ. 0.76 W (Device in nominal operation)
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Analog inputs

Description of the input	Input channels for strain gauge
Number of inputs	2
Connection method	6 or 4-wire, twisted pair shielded cable
Bridge difference U_d	Measuring range specified by selecting the characteristic and the bridge voltage
Bridge voltage U_0	3.3 V
Characteristics	+1 mV/V, +2 mV/V, +3 mV/V, +4 mV/V
	± 1 mV/V, ± 2 mV/V, ± 3 mV/V, ± 4 mV/V
Measured value representation	15 bit + sign bit

Analog outputs

Output description	Voltage output
Number of outputs	2
Impedance	> 58.3 Ω (typical; permissible total resistance of the strain gauge)
Output voltage	5 V
	3.3 V
Output current	typ. 55 mA (With $U_v = 3.3$ V)
	typ. 85 mA (With $U_v = 5$ 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

ETIM

ETIM 2.0	EC001431
ETIM 3.0	EC001596
ETIM 4.0	EC001596
ETIM 5.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015

Inline terminal - IB IL SGI 2/F-PAC - 2878638

Classifications

UNSPSC

UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

UL Recognized

cUL Recognized

cULus Recognized

Accessories

Accessories

Device parameterization

Software - AX+ BASIC - 2985068



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

Inline terminal - IB IL SGI 2/F-PAC - 2878638

Accessories

Software - AX DTM LIB - 2988065



DTM library

Installation terminal block

Connection terminal block - AKG 4 GNYE - 0421029



Connection terminal block, Connection method Screw connection, Load current : 41 A, Cross section: 0.5 mm² - 6 mm², Width: 7 mm, Color: green-yellow

Connection terminal block - AKG 4 BK - 0421032



Connection terminal block, Connection method Screw connection, Load current : 41 A, Cross section: 0.5 mm² - 6 mm², Width: 7 mm, Color: black

Neutral conductor rail

Neutral busbar - NLS-CU 3/10 SN 1000MM - 0402174



PEN conductor busbar, 3mm x 10 mm, length: 1000 mm

Pick-off terminal block

Connection terminal block - AK 4 - 0404017



Connection terminal block, Connection method Screw connection, Load current : 41 A, Cross section: 0.5 mm² - 6 mm², Width: 7 mm, Color: silver

Plug

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Accessories

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



Inline shield connector

Inline connector - IB IL SCN-8 - 2726337



Connector, for digital 1, 2 or 8-channel Inline terminals

Shield connection clamp

Shield connection terminal block - SK 8 - 3025163



Shield connection clamp, for shield on busbars, contact resistance < 1 mOhm

Shield connection terminal block - SK 14 - 3025176



Shield connection clamp, for shield on busbars, contact resistance < 1 mOhm

Shield connection terminal block - SK 20 - 3025189



Shield connection clamp, for shield on busbars, contact resistance < 1 mOhm

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Accessories

Shield connection terminal block - SK 35 - 3026463



Shield connection clamp, for shield on busbars, contact resistance < 1 mOhm

Support

Support bracket - AB-SK - 3025341



Support bracket for busbars

Support bracket - AB-SK 65 - 3026489



Support bracket, Bracket for busbars, set every 20 cm, Length: 95.5 mm, Width: 6.2 mm, Color: gray

Support bracket - AB-SK/E - 3026476

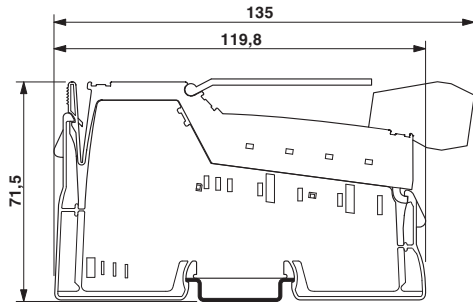


Support bracket, Bracket for busbars, set every 20 cm, Length: 10 mm, Width: 56 mm, Height: 20 mm, Color: silver

Drawings

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Dimensional drawing



Connection diagram

