

## Inline function terminal - IB IL SGI 2/P/EF-PAC - 2702373

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

The figure shows the standard item

### Product Description

The terminal is designed for use within an Inline station.

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

You can connect the strain gauges using 6 or 4-wire technology.

The measured value can be output directly on a weight display via a serial interface.

There are two options for data exchange:

- via process data

- via PCP Compact (both inputs in the "Analog Values" PCP object)The measured values are represented by standardized 16-bit values.

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### Your advantages

- 2 high-precision inputs for strain gauge
- Measuring ranges adjusted with nominal characteristic values upon delivery
- Manual entry of characteristic values
- Process data update can be parameterized in increments between 200 µs and 100 ms
- Path adjustment in the process environment
- 2-point adjustment
- Connection of the strain gauges with 6- and 4-wire technology
- Advanced open circuit detection
- Sensor supply of up to 115 mA (8 load cells with 350 Ω per channel)
- Per channel: low-resistance, floating N/O contact
- Channels are parameterized independently of one another via the bus system
- Tara device
- Serial interface for external weight displays
- Status message when zero point is reached and resting of measured value



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 228464

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GTIN	4055626228464
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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	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

Mounting type	DIN rail
Net weight	241 g
Operating mode	Process data operation with 3 words, PCP with 1 word
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 kbps
Transmission physics	Copper

#### Inline potentials

Designation	Communications power ( $U_L$ )
Supply voltage	7.5 V DC (via voltage jumper)
Current consumption	typ. 80 mA
	max. 95 mA
Designation	Supply of analog modules ( $U_{ANA}$ )
Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	14 mA (for no-load operation without strain gauge or display)
	typ. 32 mA (in case of typical load of 350 Ohm per channel)

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### Technical data

#### Inline potentials

	115 mA (with maximum load of 43 $\Omega$ and display)
Power consumption	typ. 1.4 W (Device in nominal operation)

#### Analog inputs

Description of the input	Input channels for strain gauge
Number of inputs	2
Connection technology	6 or 4-wire, twisted pair shielded cable
Bridge difference $U_d$	Measuring range specified by selecting the characteristic
Bridge voltage $U_0$	5 V
Characteristics	$\pm 1$ mV/V, $\pm 2$ mV/V, $\pm 3$ mV/V, $\pm 3.33$ mV/V, $\pm 4$ mV/V, $\pm 5$ mV/V, $\pm 6$ mV/V, manual characteristic value specification
Measured value representation	16 bit, 20 bit, ASCII data record

#### Analog outputs

Output description	Jumper supply
Number of outputs	2
Impedance	> 43 $\Omega$ (per channel)
Output voltage	typ. 5 V
Output current	max. 115 mA (per channel)

#### Electrical isolation

Test section	Logic 500 V AC 50 Hz 1 min.
	Analog I/O 500 V AC 50 Hz 1 min.
	RS-485 500 V AC 50 Hz 1 min.
	N/O contact $K_{a1}$ - $K_{b1}$ 500 V AC 50 Hz 1 min.
	N/O contact $K_{a2}$ - $K_{b2}$ 500 V AC 50 Hz 1 min.
	Functional earth ground 500 V AC 50 Hz 1 min.

#### Standards and Regulations

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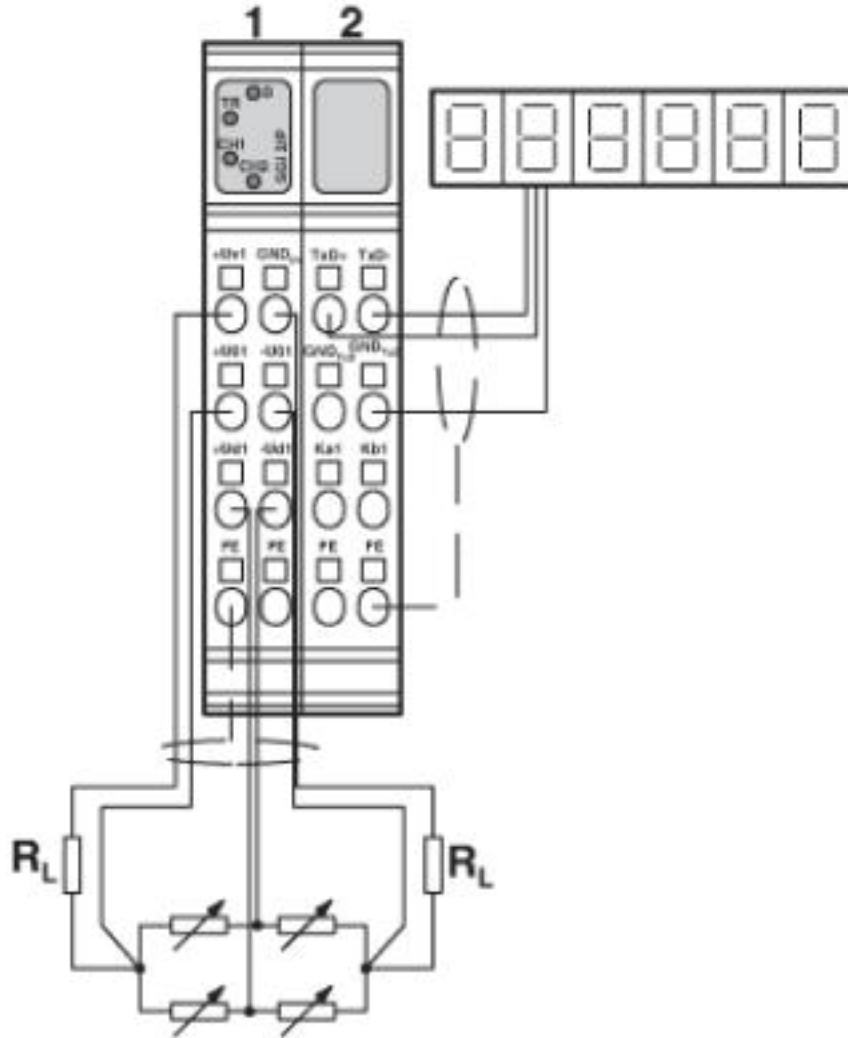
#### Environmental Product Compliance

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

### Drawings

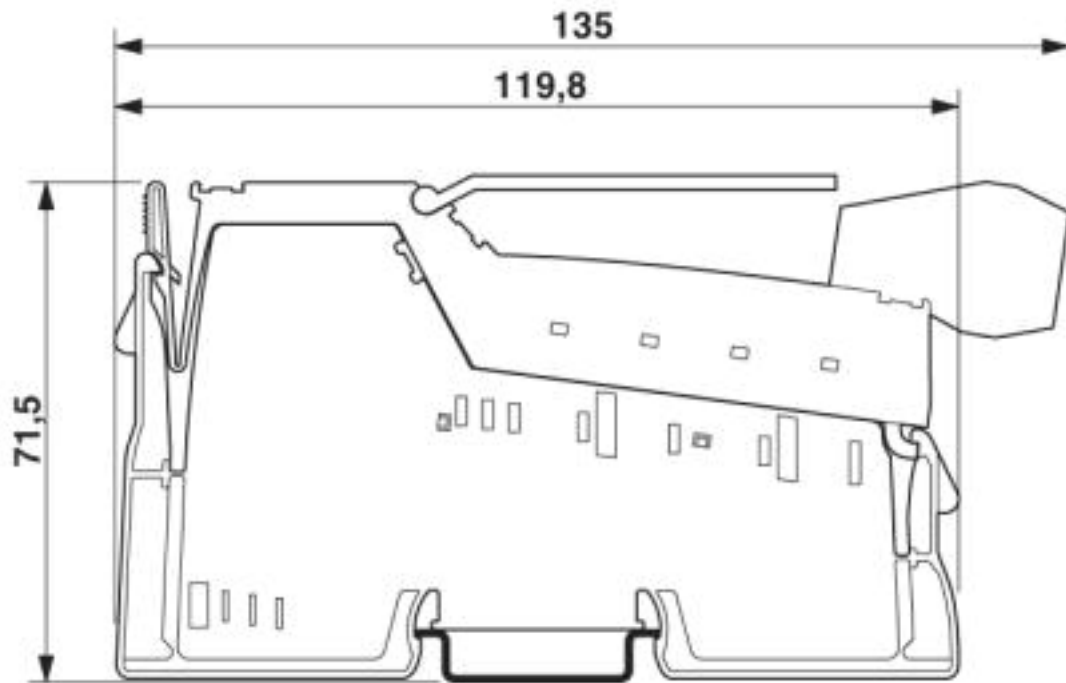
# Inline function terminal - IB IL SGI 2/P/EF-PAC - 2702373

Connection diagram



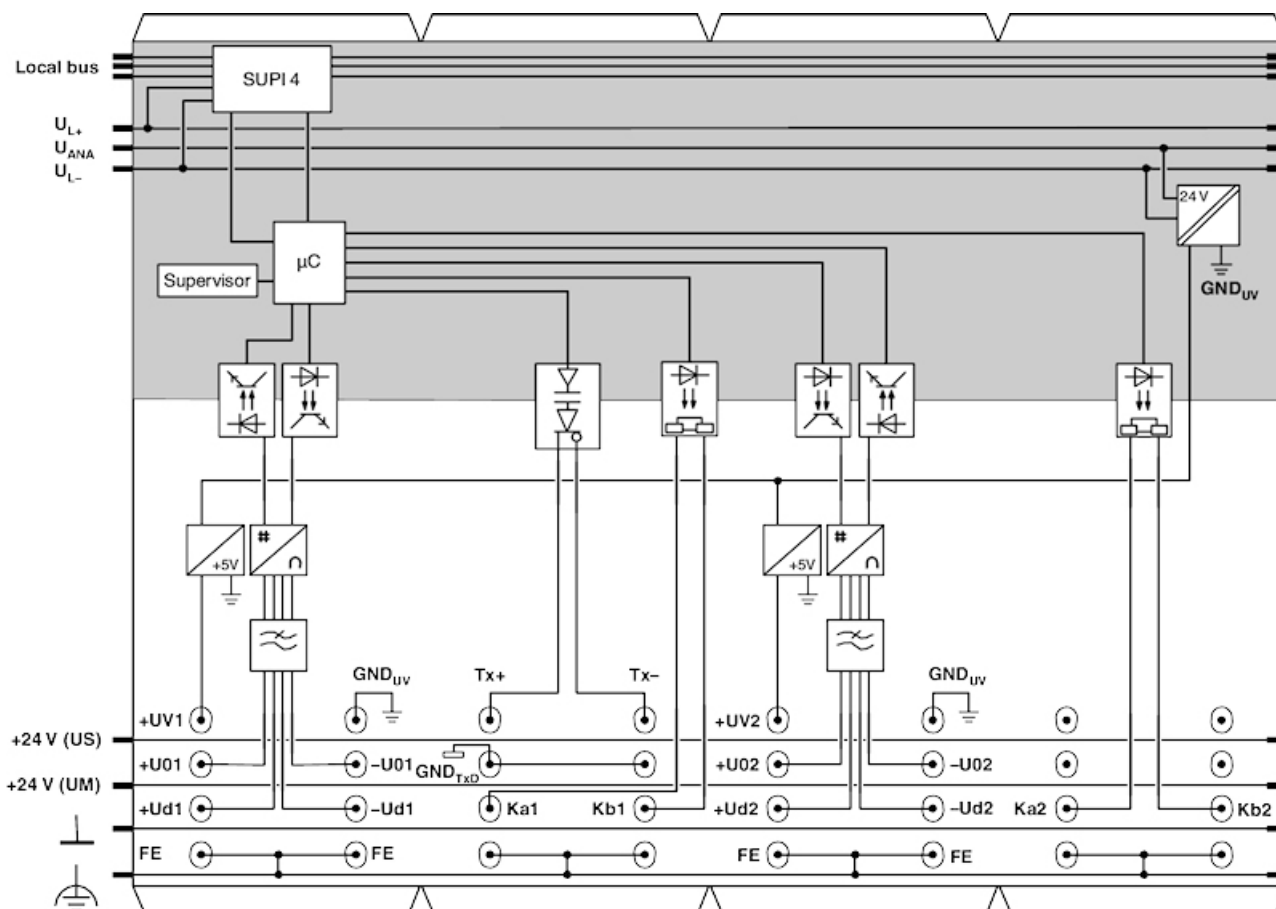
## Inline function terminal - IB IL SGI 2/P/EF-PAC - 2702373

Dimensional drawing



# Inline function terminal - IB IL SGI 2/P/EF-PAC - 2702373

Block diagram



Approvals

Approvals

# Inline function terminal - IB IL SGI 2/P/EF-PAC - 2702373

## Approvals

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Approvals




UL Listed / cUL Listed / cULus Listed

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Ex Approvals

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## Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
cULus Listed			

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