

# SP-02 current signal isolator without auxiliary power

- ✓ **Single circuit or dual circuit version in 12.5 mm wide casing**
- ✓ **Accuracy 0.16%**
- ✓ **Casing can be fitted on a standard adapter (TS35)**

## Applications and functions

The SP-02 signal isolator provides galvanic separation of an input signal (0/4...20 mA) and converts it, through a separation system into an output signal (0/4...20 mA), with a two-wire power supply in the input signal loop.

The device is typically used to provide galvanic separation between the measurement circuits installed on an object, and the main section. This enables the effect of object-related interference in the monitoring, control and recording systems of automatic devices to be largely eliminated.

## Technical parameters

### Input data

<b>Input signal</b>	0/4...20 mA
<b>Voltage drop at input</b>	$\leq 3.5 \text{ V} + I_{\text{OUT}} \times R_{\text{O}}$

### Output data

<b>Output signal</b>	0/4...20 mA
<b>Load resistance <math>R_{\text{O}}</math></b>	0...500 $\Omega$

### Galvanic separation

transformer-based

<b>Strength test parameters</b>	1.5 kV, 50 Hz, 1 min
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### Dynamic characteristics

<b>Transmission band</b>	5 Hz (3 dB)
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### Conversion errors

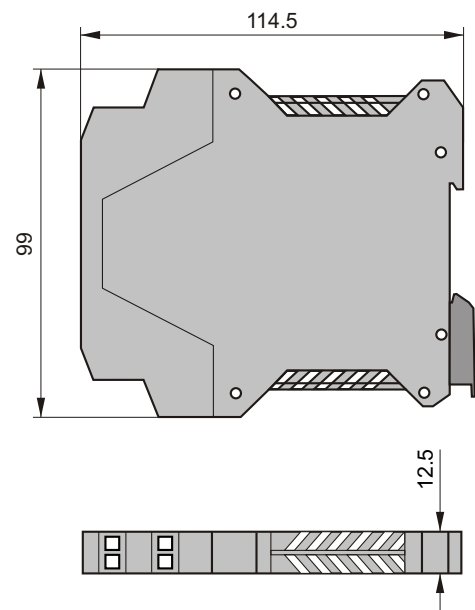
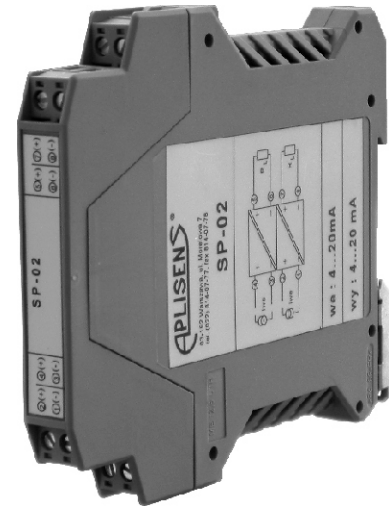
<b>Accuracy</b>	$\leq \pm 0.16\%$
When converting a 0...20 mA signal to 0...20 mA in the range below 1% of signal, the error increases to $\pm 0.5\%$ .	
<b>Effect of temperature fluctuations</b>	0.1% / 10°C
<b>Effect of load resistance fluctuations</b>	0.1% / 100 $\Omega$

### Conditions of normal use

<b>Ambient temperature</b>	5...60°C
<b>Relative humidity</b>	30...80%

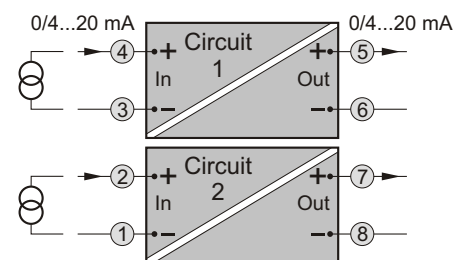
### Casing

<b>Type</b>	ME 12.5 (PHOENIX)
<b>Ingress protection rating</b>	IP 20
<b>Weight</b>	0.1 kg



## Ordering procedure

Standard version:	<b>SP-02 /</b>	↑
Special version: (with 0...10 V voltage output)	<b>SP-02 / 0...10 V /</b>	↑
		↑
	Number of circuits (1 or 2)	



**Electrical diagram**