

Power supply/isolator/signal converter ZSP-41



- ✓ Full galvanic separation of circuits (IN-OUT, IN-SUP, OUT-SUP)
- ✓ Ability to select input and output signals
- ✓ Ability to use input line to power a two-wire transmitter
- ✓ Casing can be fitted on a standard rail (TS35)

Applications and functions

The ZSP-41 provides galvanic separation of an input signal (4 ÷ 20 mA, 0 ÷ 20 mA, 0 ÷ 10 V, 0 ÷ 20 V) and converts it, through a separation system into an output signal. An additional input line may be connected to any two-wire transmitter to provide it with a 19 ÷ 24 V. The device is typically used to provide galvanic separation between the measurement circuits installed on an object, and the main section.

Configuration, calibration

The user can use switches to configure input and output settings for the following signals. Access to switches by removing the front panel. Isolator can be produced to support other input and output signals. Calibration is carried out using potentiometers.

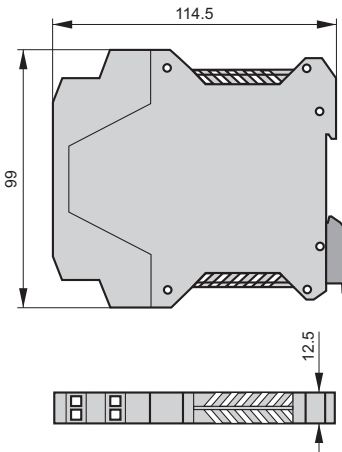
Switches of input configuration

	DP2		DP4			
	1	2	1	2	3	4
0...20 mA	+	+	+	+	-	+
4...20 mA	+	+	+	-	+	+
Two-wire transmitter	-	+	+	-	+	+
0...10 V	+	+	-	+	-	+
0...20 V	+	+	-	+	-	-

Switches of output configuration

	1	2	3	4
0...20 mA	-	-	-	-
4...20 mA	-	+	-	+
0...10 V	+	-	+	-

+ ON
- OFF



Technical parameters

• Input parameters

Input signal (selected by switch)

0...20 mA, 4...20 mA, 0...10 V

Input resistance

≥ 50 kΩ (voltage input) / 20 Ω (current input)

• Output parameters

Output signal (selected by switch)

0...20 mA, 4...20 mA, 0...10 V

Load resistance

0...500 Ω (current output) / ≥ 1 kΩ (voltage output)

• Galvanic separation: opto-electronic

Strength test parameters

1.5 kV AC, 50 Hz, 1 min

• Dynamic characteristics

Transmission band: 5 Hz (3 dB)

• Power supply

Supply voltage: 24 V ± 20%

Supply current: ≤ 100 mA

• Conditions of normal use

Ambient temperature: 5...60°C

Relative humidity: 30...80%

• Casing

Type: UEGM 22.5 (PHOENIX)

Ingress protection rating: IP 20

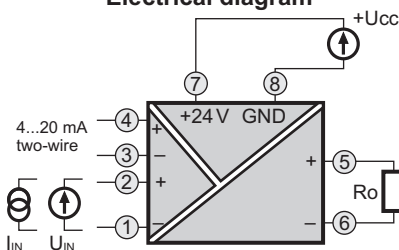
• Weight: 0.1 kg

• Conversion errors

Accuracy: ≤ ±0.16%

Typically, the converter is set for the range 4...20 mA / 4...20 mA. Setting of a different range will lower the class of the converter to 0.25% (tuning is possible using trimmers accessible from the front plate).

Electrical diagram



Ordering procedure

Standard version: **ZSP-41**

Special version: **ZSP-41 /** **/**

