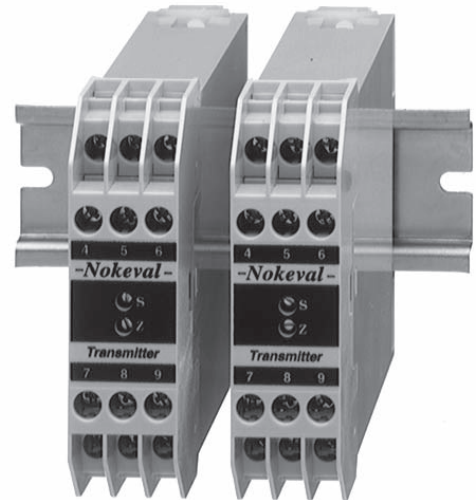


## Signal converter 641

- Current inputs 0/4..20 mA
- Voltage inputs 0..5, 0..10 V,  $\pm 10V$
- Potentiometer
- Output 0/4..20 mA, 0..5/10 V,  $\pm 10V$ , or passive 2-wire output 4-20 mA
- Power supply for 2-wire transmitter
- Galvanic isolation
- Four selectable dampings
- Nominal accuracy 0.05 % of range
- Power supply 24 VDC  $\pm 10\%$
- mV-inputs on request



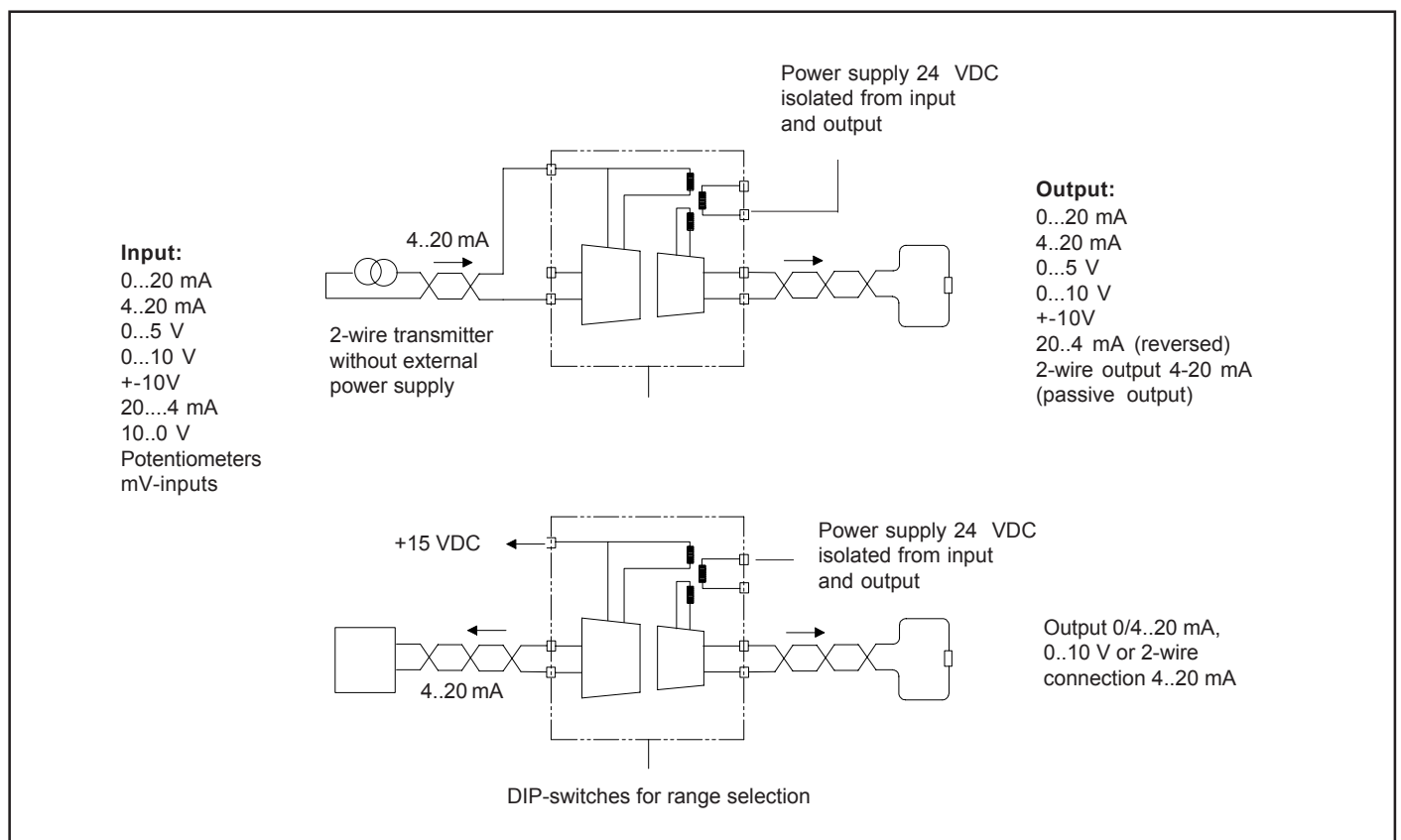
Signal converter 641 is designed to convert standard process input/output signals. Current inputs 0/4..20 mA can be converted into voltage outputs, -10..+10 V can be converted to 0..10 V, low mV inputs can be converted to standard outputs etc. Signal converter 641 accepts 2-wire transmitters without a separate power supply. Potentiometer input as a standard.

Galvanic isolation is made at the same time with the conversion. Galvanic isolation cuts the noise signals which may exist when using low voltage signals, e.g. thermocouples.

0.. $\pm 5$  V, 0.. $\pm 10$  V or current 0/4..20 mA. Converter 641 gives also the possibility to signal damping. There is four selectable dampings: 10 ms, 250 ms, 500 ms or 750 ms. Selection via DIP-switches. Operating voltage 24 VDC  $\pm 10\%$  is also isolated from input and output.

The common inputs and outputs are selected via DIP-switches, see table next page. Fine adjustment is made with front panel zero and span potentiometers. The ranges, not given in the table, may be delivered on request. Signal converter 641 is delivered always to ordered range.

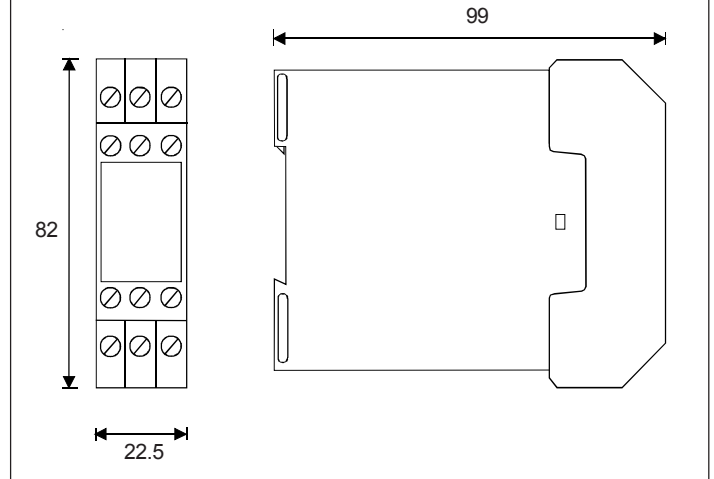
Output selectable via DIP-switches: voltage 0-5V, 0-10V,



## Technical specifications:

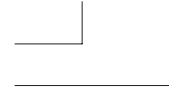
Accuracy	< 0,05% of range
Typical linearity	< 0.05 % of range
Temperature effects:	under 0.006% /°C
Input resistance	50 W for current > 100 MW for voltage input
Potentiometer	500W - 100 kW
Output load	Max. 600 W
Power supply	24 VDC $\pm$ 10 %
Isolation	>1000 V input-output
Power consumption	40 mA, voltage output 60mA, mA-output
Range selection	80 mA, 2-wire transmitter DIP-switches and jumpers
Damping	Four selectable dampings
T=63%	0,1 ms, 250 ms, 500 ms and 700 ms
Rise time 100%	300 $\mu$ s
Frequency response	10 ms, 0...1 kHz, $\pm$ 10V input/output
Ambient temp.	45°C
Case width	22,5 mm
Mounting	DIN-rail, DIN46277
Terminal blocks	2 x 2,5 mm <sup>2</sup>

## Dimensions (mm):



**Order code: 641- 4/20mA - 0/10V**

**Input**  
**Output**



## Standard ranges:

Input	Output	Input	Output	Input	Output
0/20 mA	0/20 mA	0/10 V	0/20 mA	-20/-4 mA	4/20 mA
0/20 mA	4/20 mA	0/10 V	4/20 mA	-5/+5 V	-10/+10 V
0/20 mA	0/10 V	0/10 V	0/10 V	-5/+5 V	-5/+5 V
0/20 mA	0/5 V	0/10 V	0/5 V	-10/+10 V	-10/+10 V
4/20 mA	0/20 mA	0/5 V	0/20 mA	-10/+10 V	-5/+5 V
4/20 mA	4/20 mA	0/5 V	4/20 mA	Potentiometer	0/20 mA
4/20 mA	0/10 V	0/5 V	0/10 V	Potentiometer	4/20 mA
4/20 mA	0/5 V	0/5 V	0/5 V	Potentiometer	0/10 V
4/20 mA	-10/+10 V			Potentiometer	0/5 V
4/20 mA	-5/+5 V				

When selecting new ranges, fine adjustment is made via front panel potentiometers.

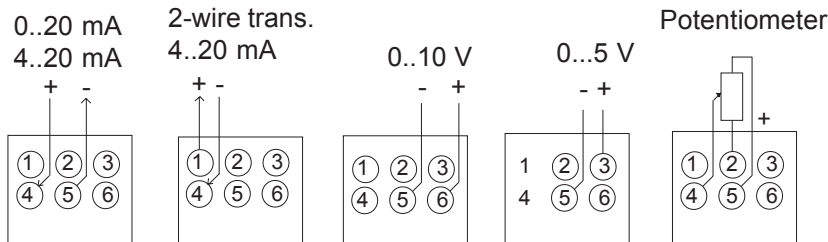
Potentiometer input is delivered according to potentiometer size, which can be changed later by selecting new range resistors.

Signal converter 641 is delivered always to ordered range.

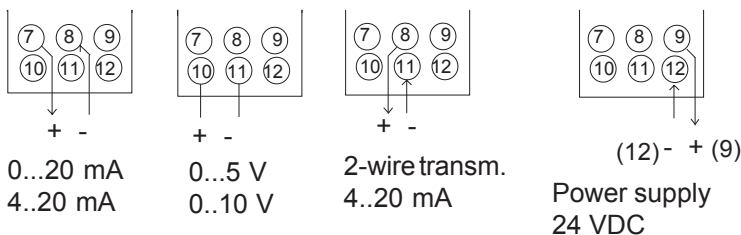
The ranges, not given in the table, may be delivered on request (mV, high voltages etc.).

## Terminal connections:

### Input:



Other inputs and outputs are connected as shown in users manual.



### Output:

