

### FEATURES

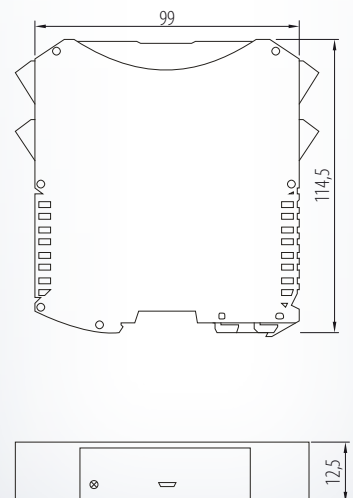
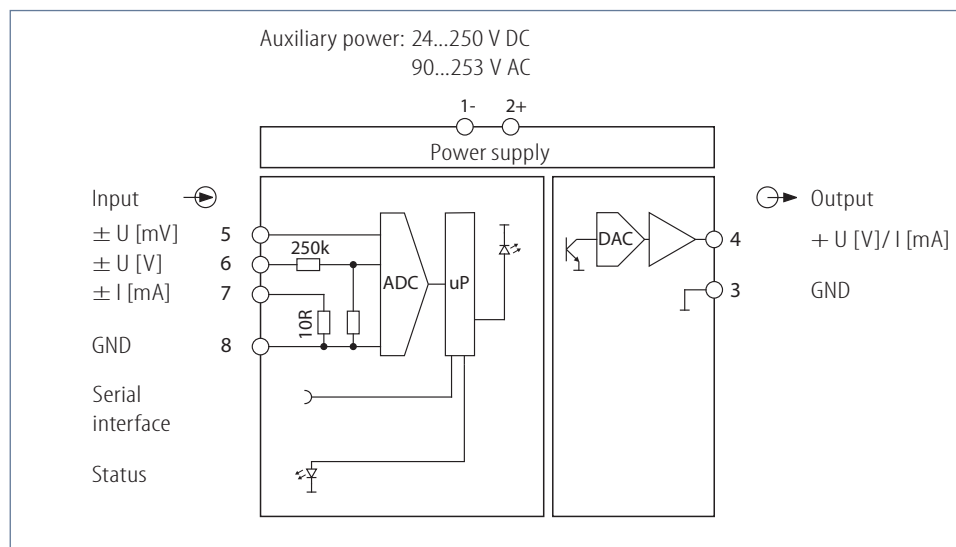
- **Bipolar inputs:**  
 Current  $\pm 20 \text{ mA}$   
 Voltage  $\pm 250 \text{ mV}$   
 Voltage up to  $-20 \text{ V} \dots +40 \text{ V}$
- **Output:**  
 Current  $0(4) \dots 20 \text{ mA}$  or  
 Voltage  $0(2) \dots 10 \text{ V}$
- **Parameterization without auxiliary power via PC-interface**
- **Wide range auxiliary power**  
 $24 \dots 250 \text{ V DC} / 90 \dots 253 \text{ V AC}$
- **Galvanic 3-way isolation of 2,5 kV**



### FUNCTION

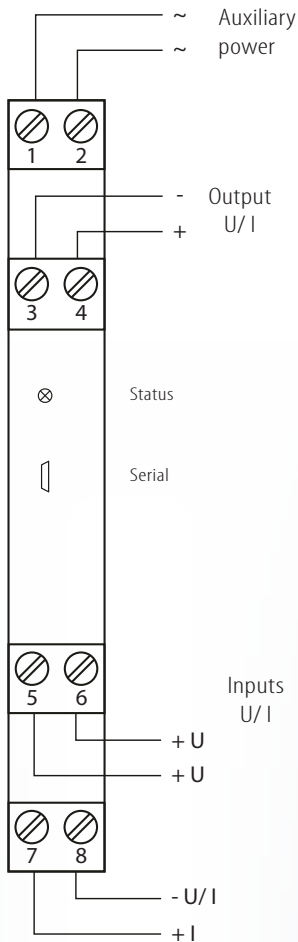
Amplifiers are used for the galvanic isolation or conversion of analog signals. This guarantees a safe decoupling between sensor and evaluation circuit and any influence of other sensor circuits among each other is absolutely impossible. The STP 1.00 MW is equipped with bipolar current and voltage inputs as well as current and voltage outputs.

It can be adjusted and parameterized easily by the USB2 adapter in connection with KALIB-Software. Indication of status is signaled by front sided LED. The integrated protective switching with suppressor diode protects the secondary circuit from voltage peaks and transient excess voltage.



# STP 1.00 MW

Connection diagram:



## Input:

|                          |  |                                 |
|--------------------------|--|---------------------------------|
| I: DC current (bipolar): | -20...0...+20 mA<br>-10...0...+10 mA   | input resistance approx. 10 Ω   |
| connection:              | terminal 8 -, 7 +  |                                 |
| U: DC voltage (bipolar): | -20...0...+40 V<br>-20...0...+20 V<br>-10...0...+10 V<br>-5...0...+5 V                 | input resistance approx. 250 kΩ |
| connection:              | terminal 8 -, 6 +  |                                 |
| U: DC voltage (bipolar): | -250...0...+250 mV<br>-500...0...+500 mV<br>-500...0...+1000 mV<br>-500...0...+2000 mV | input resistance approx. 1 MΩ   |
| connection:              | terminal 8 -, 5 +  |                                 |

Within the described measuring ranges the beginning respectively the end can be freely selected.

## Output:

|                                 |                   |                              |
|---------------------------------|-------------------|------------------------------|
| I: load-independent DC current: | 0(4)...20 mA      | permissible load max. 580 Ω  |
| connection:                     | terminal 3 -, 4 + |                              |
| U: load-independent DC voltage: | 0(2)...10 V       | permissible load $\geq 1$ kΩ |
| connection:                     | terminal 3 -, 4 + |                              |

The minimum/ maximum limits for current and voltage output are freely selectable and adjustable in clear text. On exceeding or falling below the error limits at the input, a defined fixed value can be predetermined in case of error for the output.

## Adjustment:

Measuring ranges and parameterization are adjustable in parameter data by KALIB-Software. You need a PC and the interface adapter USB2 with KALIB-Software.

## Display:

|             |                                  |  |
|-------------|----------------------------------|--|
| LED status: | green, active<br>green, flashing | input signals are in standard range, device ready for use<br>input out of predetermined limits or exceeding of measuring range |
|-------------|----------------------------------|--|

## Environmental conditions:

|                        |   |
|------------------------|---|
| Storage temperature:   | -40...+70 °C  |
| Operating temperature: | 0...55 °C   |
| Isolation voltage:     | 2,5 kV eff. 1 sec. input-output<br>2,5 kV eff. 1 sec. auxiliary voltage |

## Auxiliary power:

|            |   |
|------------|---|
| Widerange: | 24...250 V DC<br>90...253 V AC<br>< 3 W |
|------------|---|

Influence of auxiliary power: < 0,1 %

## Characteristics of transmission:

|                     |                            |
|---------------------|----------------------------|
| Transmission error: | < 0,12 %                   |
| Resolution:         | 15 bit                     |
| Linearity error:    | < 0,1 %                    |
| Temperature error:  | < 100 ppm/ K               |
| Load influence I:   | < 50 ppm<br>of final value |
| Load influence U:   | < 0,2 %<br>at 1 kΩ load    |
| Setting time:       | < 500 msec.                |

## Directive:

|                        |             |
|------------------------|-------------|
| EMC Directive:         | 2014/30/EU* |
| Low Voltage Directive: | 2014/35/EU  |

\*minimum deviations possible during HF-radiation influence

## Mounting details:

|                                  |   |
|----------------------------------|---|
| Housing for top hat rail         |   |
| Type of protection:              | IP 40 housing<br>IP 20 clamps                     |
| Mounting rail fixed according to | EN 50022-35 x 6,2 mm                              |
| Width:                           | 12,5 mm   |
| Weight:                          | 108 g   |
| Material:                        | Polyamide PA                                      |
| Flammability class:              | V0 (UL 94)  |
| Approval:                        | CE  |
| Connection:                      | plugg. screw clamps<br>0,14...2,5 mm <sup>2</sup> |

**For safety reasons we recommend to mount the housing for top hat rail with a distance > 1 mm to each other. Please check parameterization before initial operation!**

## Ordering information:

|              |   |
|--------------|---|
| Type:        | <b>STP 1.00 MW</b> widerange            |
| Accessories: | USB2/ USB-Simulator with KALIB-Software |

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