

### FEATURES

- **Input:**  
Current 0(4)...20 mA or  
Voltage 0(2)...10 V
- **Output:**  
Current 0(4)...20 mA
- **Fine adjustment of  
offset and gain by trimmer**
- **Galvanic 3-way isolation  
of 3,75 kV**
- **Low internal consumption**

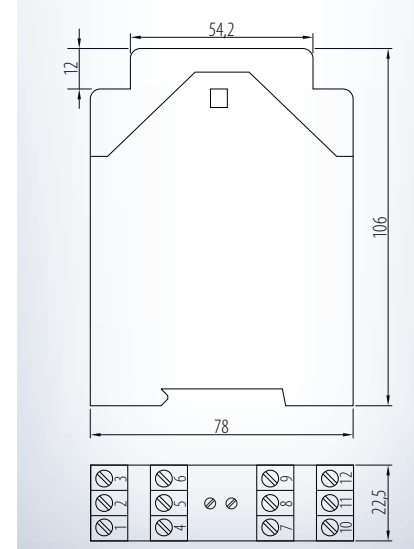
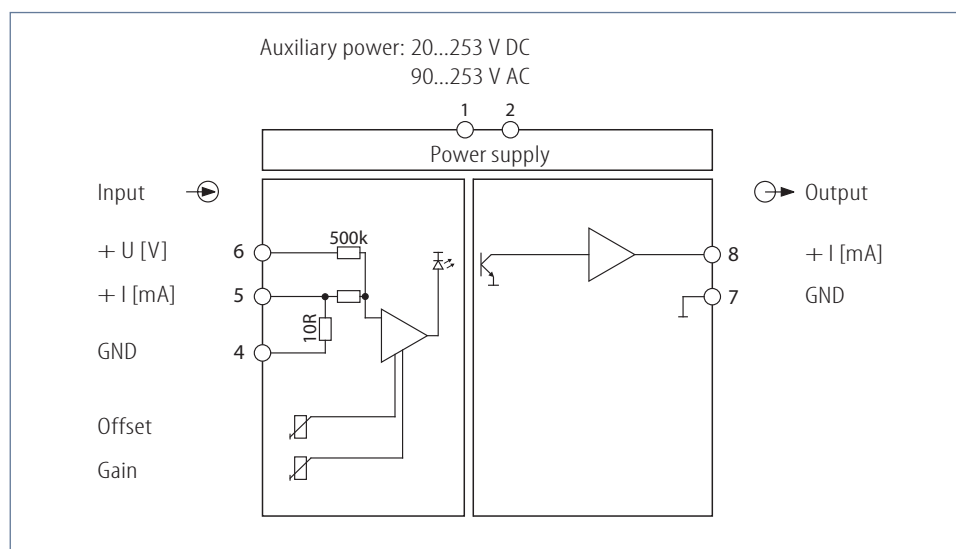


### FUNCTION

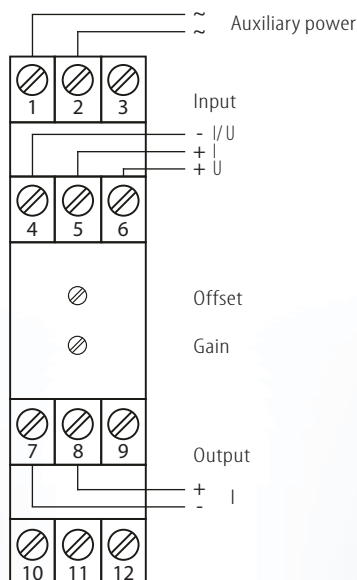
Amplifiers are used for the galvanic isolation or conversion of analog signals. This guarantees a safe decoupling between sensor and evaluation circuit and any influence of other sensor circuit among each other is absolutely impossible.

The TS 1.00 GW is equipped with standard current and voltage inputs as well as a current output. Fine adjustment of offset and gain is being made by trimmer.

The application range includes measuring and control circuits in the signal processing as well as process control systems, data loggers, multiplexer for logic decoupling and potential isolation. As far as telecontrol engineering is concerned transmitters and sensors which are centrally coupled over a long distances can be potentially isolated.



# TS 1.00 GW



## Input:

I: DC current:	0(4)...20 mA	input resistance approx. 10 $\Omega$
connection:	terminal 4 -, 5 +	
Overload save due to bipolar protective diode.		

U: DC voltage:	0(2)...10 V	input resistance approx. 500 k $\Omega$
connection:	terminal 4 -, 6 +	

## Output:

I: load-independent DC current:	0(4)...20 mA	permissible load max. 500 $\Omega$
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Gain adjustment:	trimmer $\pm 25\%$
Offset adjustment:	trimmer $\pm 20\%$

connection:	terminal 7 -, 8 +
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## Factory setting:

Input:	0...20 mA
Output:	0...20 mA

## Environmental conditions:

Storage temperature:	-40...+70 $^{\circ}\text{C}$
Operating temperature:	0...55 $^{\circ}\text{C}$
Isolation voltage:	3,75 kV eff. 1 sec. input-output-auxiliary voltage

## Auxiliary power:

Wide range:	20...253 V DC approx. 5...35 mA 90...253 V AC approx. 3...9 mA
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Influence of auxiliary power:	< 0,1 %
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## Characteristics of transmission:

Transmission error:	< 0,12 %
Linearity error:	< 0,1 %
Temperature error:	< 150 ppm/ K
Load influence I:	< 100 ppm of final value
Setting time:	< 500 msec.

## Directive:

EMC Directive:	2004/108/EC*
Low Voltage Directive:	2006/95/EC
*minimum deviations possible during HF-radiation influence	

## Mounting details:

Housing for top hat rail	
Type of protection:	IP 40 housing IP 10 clamps
Mounting rail fixed according to	EN 50022-35 x 6,2 mm
Width:	22,5 mm
Weight:	110 g
Material:	Noryl V0 150/ ABS
Flammability class:	ISO R75A 147 $^{\circ}\text{C}$ / 90 $^{\circ}\text{C}$
Approval:	CE
Connection:	screw clamps $\leq 2 \times 2,5\text{mm}^2$

**For safety reasons we recommend to mount the housing for top hat rail with a distance of approx. 5 mm to each other.**

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## Ordering information:

If an onther factory setting is required, please specify in clear text:  
e.g. input: 4...20 mA, output: 0...20 mA

**Type: TS 1.00 GW** wide range

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