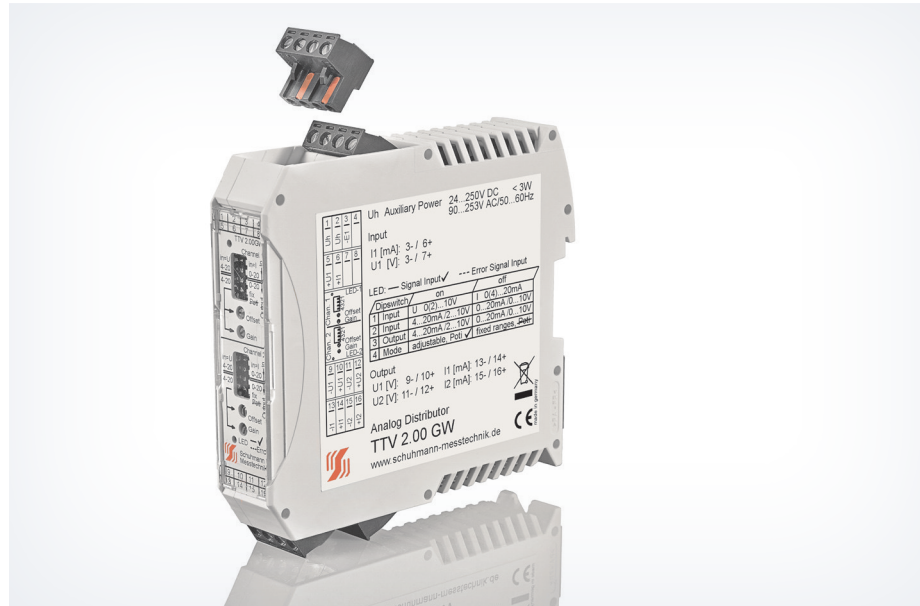


### FEATURES

- **1 Input:**  
Current 0(4)...20 mA or  
Voltage 0(2)...10 V
- **Outputs simultaneous:**  
2 x current 0(4)...20 mA and  
2 x voltage 0(2)...10 V
- **Function, switchable:**  
- fixed calibration or  
- adjustable by trimmer
- **Pluggable screw-clamps**
- **Galvanic 3-way isolation per channel**



### FUNCTION

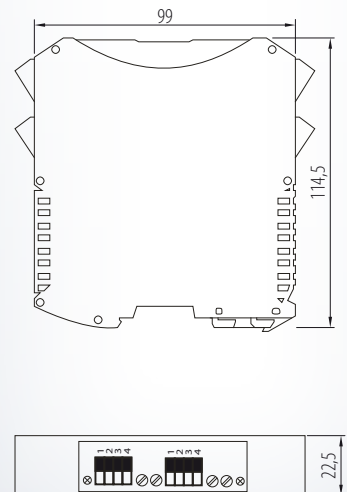
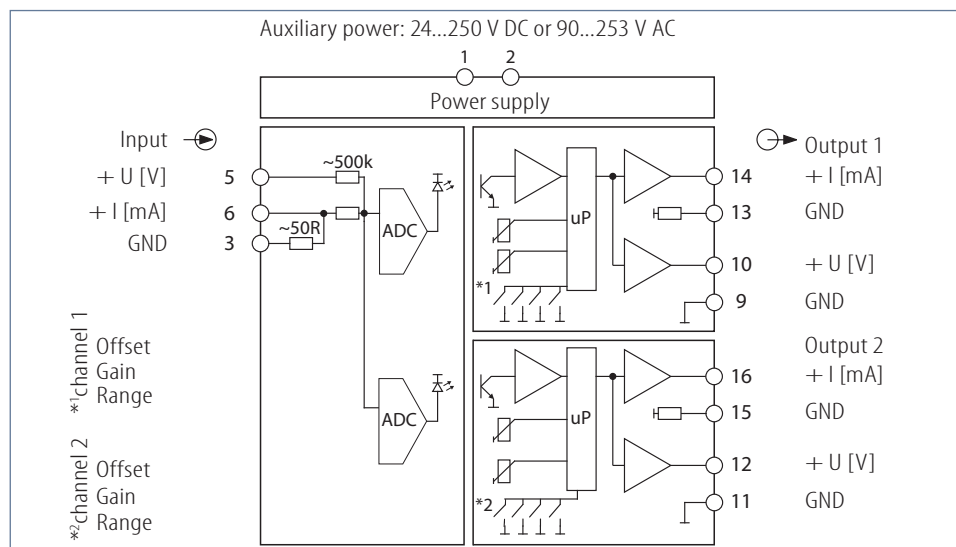
The TTV 2.00 GW transfers the input signal to 2 galvanically isolated output channels. The unit has 4 DIP-switches on frontside.

To select the transmission or the signal conversion ranges, use the DIP-switches 1 - 3.

Fixed calibrated standard measurement ranges, for input and output, are stored in the device: 0(4)...20 mA/ 0(2)...10 V = DIP-switch 4 OFF.

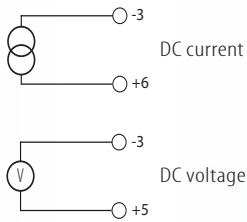
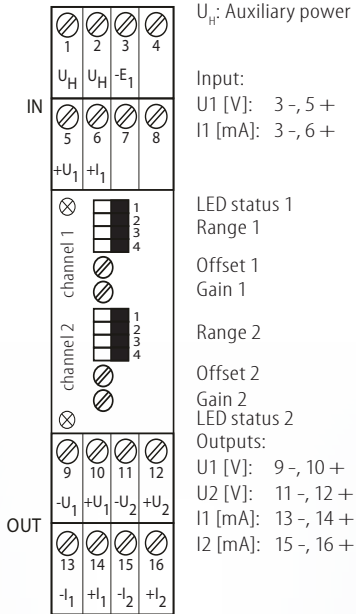
Each output channel can alternatively be adjusted separately and the individual range can be set. The fine adjustment of the offset and the final value is carried out by trimmer = DIP-switch 4 ON.

The galvanic 3-way isolation is used to protect against faulty measurement or damage downstream equipment such as analog control units, control rooms, control systems, PLC units. The integrated protection circuit with suppressor diode protects the secondary circuit from voltage spikes and transient surges.



# TTV 2.00 GW

Connection diagram:



## Input:

I: DC current:	0(4)...20 mA	input resistance approx. 50 Ω
connection:	terminal 3-, 6+	
U: DC voltage:	0(2)...10 V	input resistance approx. 500 kΩ
connection:	terminal 3-, 5+	

## Output:

I: load-independent DC current:	0(4)...20 mA	permissible load max. 540 Ω
Output current limiting:	22,0 mA	
connection:	see connection diagram	
U: load-independent DC voltage:	0(2)...10 V	permissible load ≥ 5 kΩ simultan. permissible load ≥ 1 kΩ exclusive
Gain adjustment:	trimmer ± 25 %	(DIP-switch 4 = ON)
Offset adjustment:	trimmer ± 25 %	(DIP-switch 4 = ON)
connection:	see connection diagram	

## Adjustment:

DIP-switch for range selection:

Switch	Function	ON	OFF
1	input	U [V]	I [mA]
2*	input	4...20 mA/ 2...10 V	0...20 mA/ 0...10 V
3*	output	4...20 mA/ 2...10 V	0...20 mA/ 0...10 V
4	calibration	adjustment with trimmer	fixed calibrated*

\*unchangeable factory setting: DIP4=OFF (trimmers are inactive)

## Display:

LED status	green, active	input signals are in standard range, device ready for use
	green, flashing	input signals are not in standard range

## Environmental conditions:

Storage temperature:	-40...+70 °C
Operating temperature:	-40...55 °C
Isolation voltage:	
2,5 kV eff. 1 sec.	input/ output
4 kV eff. 1 sec.	auxiliary power
500 V eff. 1 sec.	channel/ channel

## Auxiliary power:

Wide range:	24...250 V DC 90...253 V AC < 3 W
Influence of aux. power:	< 0,1 %

## Characteristics of transmission:

Transmission error:	< 0,12 %
Linearity error:	< 0,1 %
Temperature error:	< 100 ppm/ K
Load influence I:	< 50 ppm of final value
Load influence U:	< 0,2 % at 1 kΩ load
Setting time:	< 30 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 IP 20 clamps
Rail-mounting fixed according to	EN 50022-35 x 7,5 mm
Width:	22,5 mm
Weight:	160 g
Material:	Polyamide PA
Flammability class:	V0 (UL94)
Approval:	CE
Connection:	pluggable screw clamps 0,2...2,5 mm <sup>2</sup>

**For safety reasons we recommend to mount the housing for top hat rail with a distance of approx. 5 mm to each other. Please check DIP-switch before initial operation!**

## Ordering information:

Type: TTV 2.00 GW wide range

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