



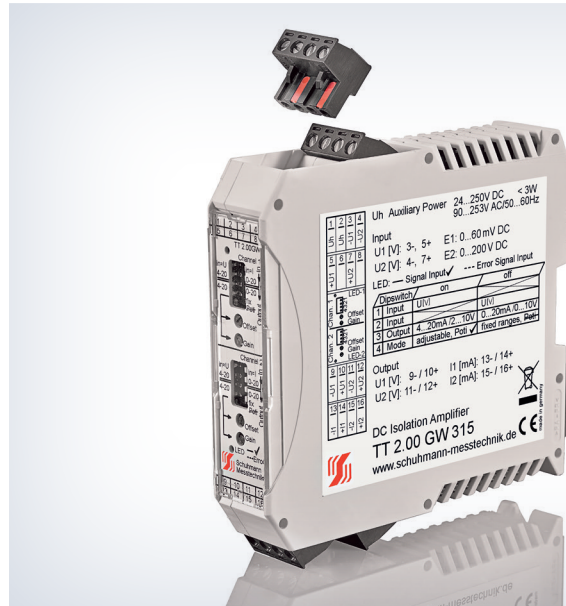
2-channel Isolating Amplifier

Special voltage inputs

TT 2.00 GW 315

FEATURES

- **Inputs:**
2 x voltage
E1: 0...60 mV / E2: 0...200 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 2-channel TT 2.00 GW 315 is used for the precise potential isolation of two different measuring signals. Channel 1 processes signals from 0...60 mV, channel 2 from 0...200 V. The unit has 4 DIP-switches on frontside.

DIP-switch 1 must be ON, DIP-switch 2 must be OFF. DIP-switch 3 determines the output signal.

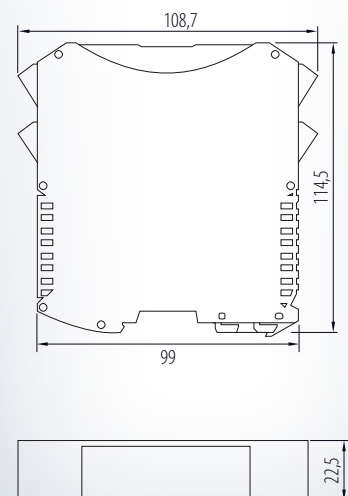
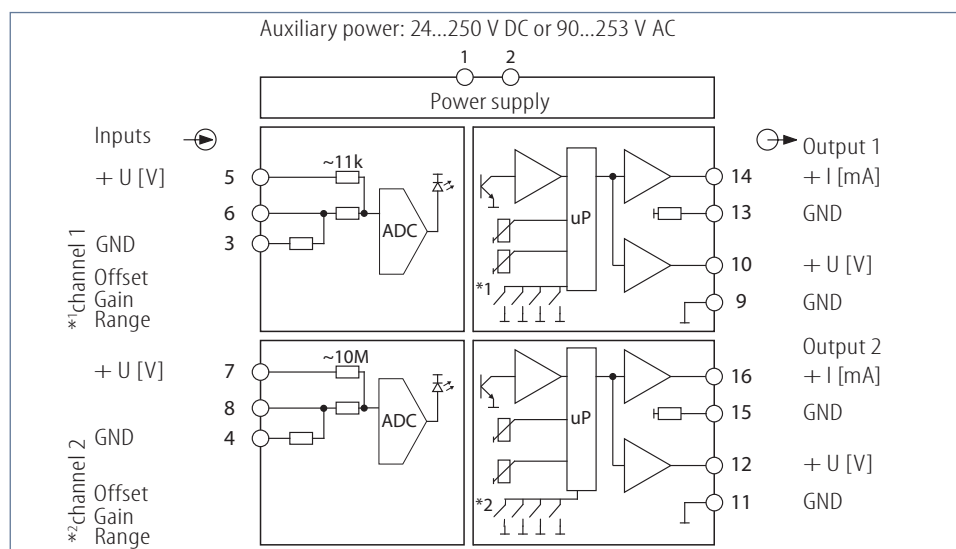
Fixed calibrated standard measurement ranges, for input and output, are stored in the device: 0(4)...20 mA/ 0(2)...10 V = DIP-switch 4 OFF.

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.

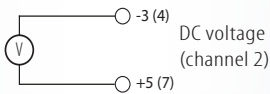
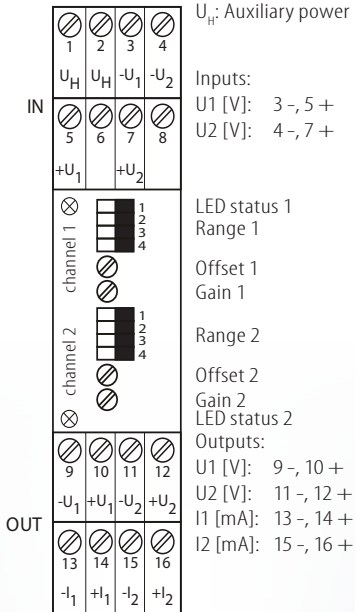
The galvanic 3-way isolation is used to protect against faulty measurement or damage downstream equipment such as analog control units, control rooms, control systems, PLC units.

The integrated protection circuit with suppressor diode protects the secondary circuit from voltage spikes and transient surges.



TT 2.00 GW 315

Connection diagram:



Input:

U: DC voltage: U1: 0...60 mV input resistance approx. 11 kΩ
U2: 0...200 V input resistance approx. 10 MΩ
connection: see connection diagram

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]	
2*	input		U [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 mm²

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: TT 2.00 GW 315 wide range

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