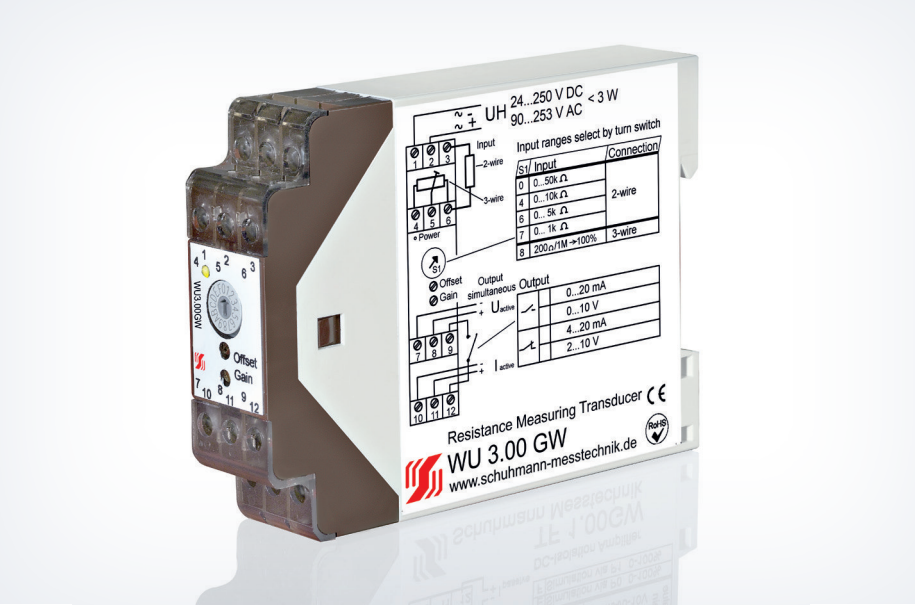
Resistance Measuring Transducer

WU 3.00 GW

FEATURES

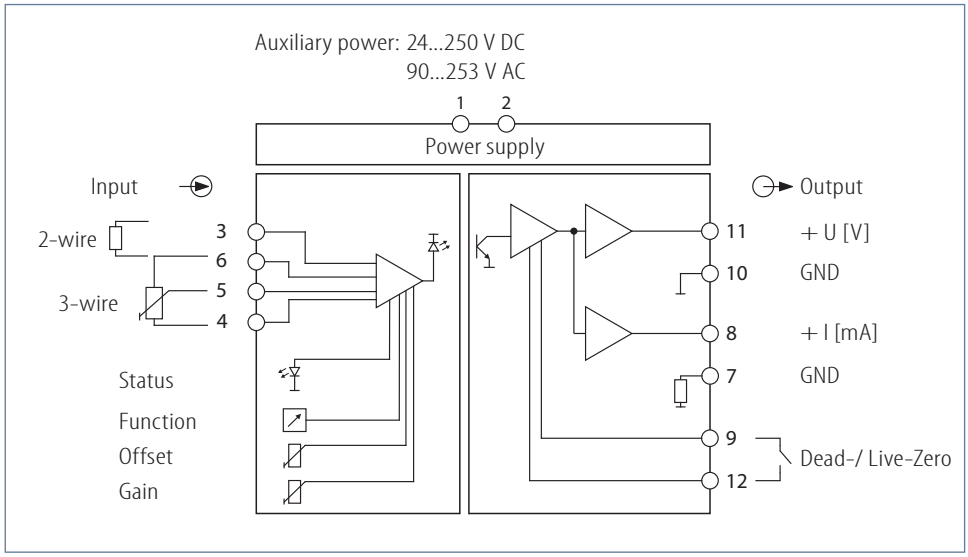
- *1 Input, switchable: For 2- and 3-wire resistance transmitter*
- *Output, simultaneous: Current 0(4)...20 mA and Voltage 0(2)...10 V*
- *Fine-adjustment of offset and gain by trimmer*
- *Galvanic 3-way isolation of 3,75 kV*

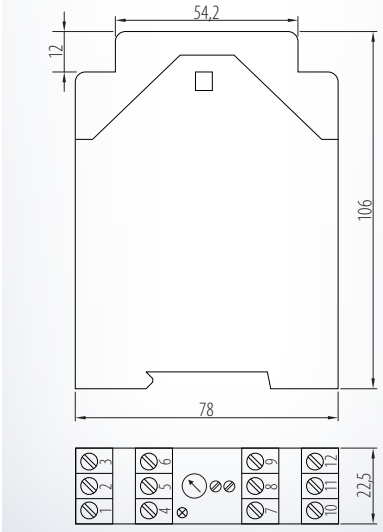


FUNCTION

The WU 3.00 GW converts the value of resistance input into a linear current and voltage signal and is used for e.g. analysis of position meters, filling-level meters etc. The output resistance can be compensated by a zero and range trimmer.

At the input a potentiometer or a resistance transmitter in 2-wire or 3-wire technique can be connected. In 3-wire technique, any transmitter in a range between 200 Ω...1 MΩ can be used.
The desired adjustments can be chosen from the table on the side and switched to different characteristics of transmission by turn-switch on front side. The device is equipped with a simultaneous output for current and voltage.
An adjustment of the device is not necessary any longer!

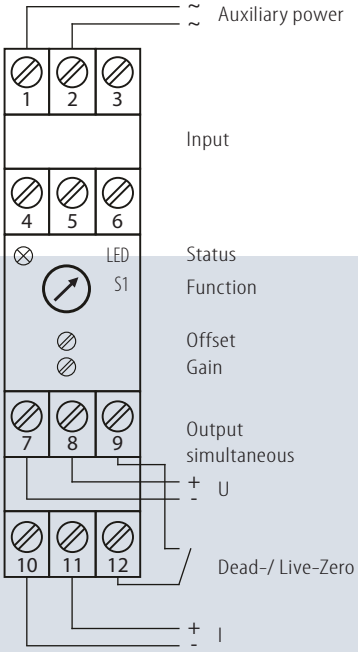




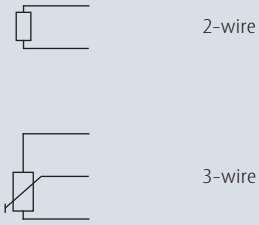
Schuhmann Messtechnik

WU 3.00 GW

Connection diagram:



Resistance input



Input:

Resistance sensor:	2-/ 3-wire switchable by turn switch
connection:	terminal 3, 4, 5, 6

Adjustment:

Input ranges selectable by front side turn switch S1:

Position	Range	Type
0	0...50 kΩ	2-wire connection
4	0...10 kΩ	2-wire connection
6	0...5 kΩ	2-wire connection
7	0...1 kΩ	2-wire connection
8	200 Ω...1 MΩ at 0...100 %	3-wire connection

Measuring range errors at change-over of the individual measuring ranges ≤ 0,5 %.

Output:

I: load-independent DC current:	0(4)...20 mA	permissible load max. 580 Ω
connection:	terminal 10 -, 11 +	
U: load-independent DC voltage:	0(2)...10 V	permissible load ≥ 5 kΩ at simultaneous operation permissible load ≥ 1 kΩ exclusive
Gain adjustment:	trimmer ± 15 %	
Offset adjustment	trimmer ± 30 %	
connection:	terminal 7 -, 8 +	

Output ranges switchable by connection of terminal 9 + 12 (Dead-/ Live-Zero):

Terminal 9/ 12	Output voltage	Output current
Open*	0...10 V	0...20 mA
Closed	2...10 V	4...20 mA

* factory setting

Display:

LED status:	green, active	device ready for use

Environmental conditions:

Storage temperature:	-40...+70 °C
Operating temperature:	0...55 °C
Isolation voltage:	
4 kV eff. 1 sec.	input/ output
3,75 kV eff. 1 sec.	auxiliary power

Auxiliary power:

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

Characteristics of transmission:

Transmission error:	< 0,2 %
Linearity error:	< 0,2 %
Temperature error:	< 100 ppm/K
Load influence I:	< 50 ppm of final value
Load influence U:	< 50 ppm 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 20 housing IP 10 clamps
Mounting rail fixed according to	EN 50022-35 x 6,2 mm
Width:	22,5 mm
Weight:	190 g
Material:	Noryl V0 150/ ABS
Flammability class:	ISO R75A 147°C/ 90°C
Approval:	CE
Connection:	screw clamps ≤ 2 x 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 switch position before initial operation!

Ordering information: **Type: WU 3.00 GW** wide range

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