Universal signal converter bipolar
WZ109REGB

- For current and voltage signals, potentiometers, Pt100, Pt500, Pt1000, Ni100, KTY81, NTC, KTY84-130/-150 and thermocouples type J, K, R, S, T, E, B and N
- Galvanic 3 - way isolation
- Converts the input signals into a -20 mA to +20 mA or -10 V to +10 V signal
- Supply via 10 VDC to 40 VDC or 19 VAC to 28 VAC
- Mini-USB interface
- Simple commissioning via DIP switch or software

https://www.wachendorff-prozesstechnik.de/en/WZ109REGB

Description

The WZ109REGB universal signal converter converts current/voltage signals, signals from temperature sensors as well as resistance signals and potentiometer signals into a bipolar current or voltage signal. The output signal is linearly proportional to the input. The device is fully set via DIP switches and/or software on the PC and is immediately ready for operation. The WZ109REGB is simply snapped onto a top-hat rail for installation.

Product details

Entrance:	• Thermocouples J, K, R, S,T, E, Bund N. • Temperature-dependent resistors (RTD) Pt100, Pt500, Pt1000, Ni100 • Potentiometer min. 500 Ohm, max. 100 kOhm. • Voltage ±75m V to ±20 VDC • Current -20 mADC to +20 mADC • Rheostat (KTY81, KTY84-130/-150, NTC), min. 500 Ohm, max. 25 kOhm
Output:	-20 mA to +20 mA and -10 V to +10 V
Response time:	35 msec with 11 bit resolution, 140 ms with 16-bit resolution (for voltage, current and potentiometer)
Resolution:	Programmable from 11 bits + sign to 15 bits + sign.
Power supply:	10 VDC to 40 VDC 19 VAC to 28 VAC, 50/60 Hz, max. 2 W
Accuracy:	between +/- 0.1 % and +/- 0.5 % depending on the range
Configuration via DIP switch:	• Input type • Zero point and slope • Output type • Inversion of the output signal
About EASY SETUP software:	• Scaling, filter • Sensor break detection • Analog output value in case of error • Interference frequency suppression (50 Hz to 60 Hz) • Sampling rate/resolution • Pt100 measurement via 2-, 3- or 4-wire

Protection:	Safety according to EN61010-1. 1,500 VAC between supply/input and output.
Ambient conditions:	Operation: -20 °C to +65 °C, 30 % to 90 % relative humidity. Storage temperature: -20 °C to +85 °C.
Safety:	EN61010-1:2013-10
EMC:	EN61000-6-2:2006-10 EN61000-4-4:2013-01 EN61000-6-4:2007-11 + A1:2013-01 EN61000-4-5:2015-05 EN61000-4-2:2011-04 EN61000-4-6:2014-09 EN61000-4-3:2007-04 + A1:2009-01 + A2:2011-01 EN61000-4-11:2006-02
Connection:	Plug-in screw terminals.
Housing:	Sturdy plastic housing
Dimensions (WxHxD):	17.5 mm x 112 mm x 100 mm
Weight:	approx. 200 g.
Scope of delivery:	Device, operating instructions.
Manufacturer:	Seneca s.r.l.

Products Order no.

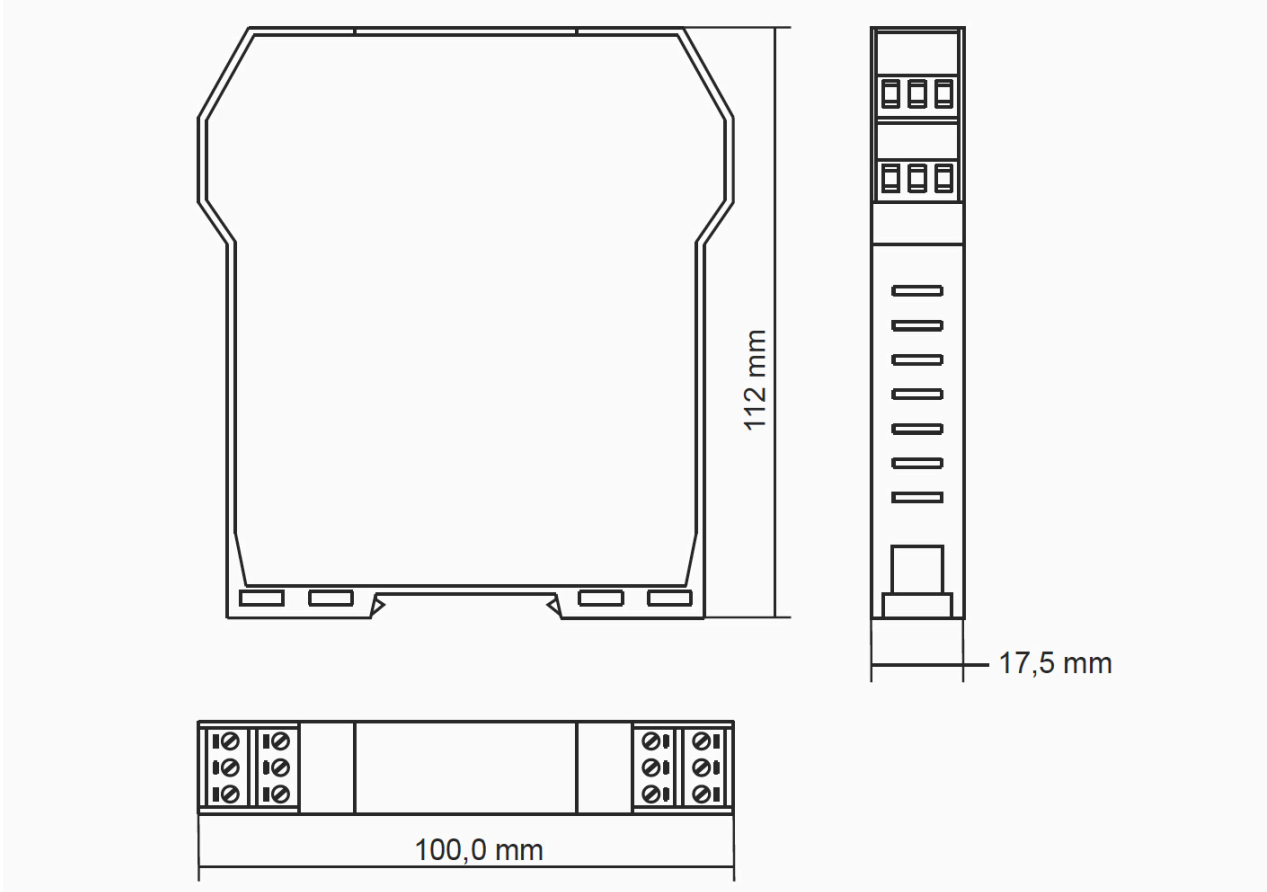
WZ109REGB	Universal signal converter 10 VDC - 40 VDC / 19 to 28 VAC

Accessories Order no.

KABUSBM2	USB programming cable, USB 2.0A to micro USB, 2 m cable

Drawings

Dimensions:



Drawings

Adjustable input ranges:

		Spannung		Widerstand / Regler		Strom		Potentiometer	
		Von..	Bis..	Von..	Bis..	Von..	Bis..	Von..	Bis..
	1	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	2	0 V	100 mV	0 Ω	1 kΩ	0 mA	1 mA	0 %	40 %
	3	400 mV	200 mV	0.5 kΩ	2 kΩ	1 mA	2 mA	10 %	50 %
	4	1 V	500 mV	1 kΩ	3 kΩ	4 mA	3 mA	20 %	60 %
	5	2 V	1 V	2 kΩ	5 kΩ	-1 mA	4 mA	30 %	70 %
	6	-5 V	5 V	5 kΩ	10 kΩ	-5 mA	5 mA	40 %	80 %
	7	-10 V	10 V	10 kΩ	15 kΩ	-10 mA	10 mA	50 %	90 %
	8	-20 V	20 V	15 kΩ	25 kΩ	-20 mA	20 mA	60 %	100 %

		Ni100 (RTD)		Pt100 (RTD)		Pt500 (RTD)		Pt1000 (RTD)	
		START	END	START	END	START	END	START	END
	1	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	2	-50 °C	20 °C	-200°C	50°C	-200 °C	0 °C	-200 °C	0 °C
	3	-30 °C	40 °C	-100°C	100°C	-100 °C	50 °C	-100 °C	50 °C
	4	-20 °C	50 °C	-50°C	200°C	-50 °C	100 °C	-50 °C	100 °C
	5	0 °C	80 °C	0°C	300°C	0 °C	150 °C	0 °C	150 °C
	6	20 °C	100°C	50°C	400°C	50 °C	200 °C	50 °C	200 °C
	7	30 °C	150 °C	100°C	500°C	100 °C	300 °C	100 °C	300 °C
	8	50 °C	200 °C	200°C	600°C	150 °C	400 °C	200 °C	400 °C

		Thermoelement J		Thermoelement K		Thermoelement R		Thermoelement S	
		START	END	START	END	START	END	START	END
	1	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	2	-200 °C	100 °C	-200 °C	200 °C	0 °C	400 °C	0 °C	400 °C
	3	-100 °C	200 °C	-100 °C	400 °C	100 °C	600 °C	100 °C	600 °C
	4	0 °C	300 °C	0 °C	600 °C	200 °C	800 °C	200 °C	800 °C
	5	100 °C	400 °C	100 °C	800 °C	300 °C	1000 °C	300 °C	1000 °C
	6	200 °C	500 °C	200 °C	1000 °C	400 °C	1200 °C	400 °C	1200 °C
	7	300 °C	800 °C	300 °C	1200 °C	600 °C	1400 °C	600 °C	1400 °C
	8	500 °C	1000 °C	500 °C	1300 °C	800 °C	1750 °C	800 °C	1750 °C

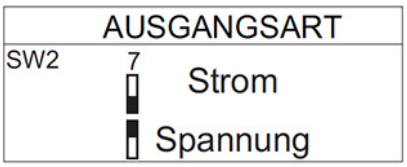
		Thermoelement T		Thermoelement B		Thermoelement E		Thermoelement N	
		START	END	START	END	START	END	START	END
	1	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	2	-200 °C	50 °C	0 °C	500 °C	-200 °C	50 °C	-200 °C	200 °C
	3	-100 °C	100 °C	500 °C	600 °C	-100 °C	100 °C	-100 °C	400 °C
	4	-50 °C	150 °C	600 °C	800 °C	0 °C	200 °C	0 °C	600 °C
	5	0 °C	200 °C	700 °C	1000 °C	100 °C	300 °C	100 °C	800 °C
	6	50 °C	250 °C	800 °C	1200 °C	150 °C	400 °C	200 °C	1000 °C
	7	100 °C	300 °C	1000 °C	1500 °C	200 °C	600 °C	300 °C	1200 °C
	8	150 °C	400 °C	1200 °C	1800 °C	400 °C	800 °C	500 °C	1300 °C

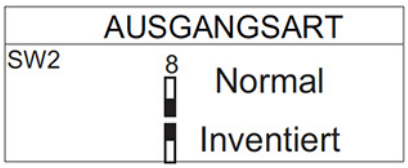
(*) START oder END, die im Speicher mittels PC oder Programmiertasten eingerichtet wurden

Einstellbare Eingangsbereiche

Drawings

Adjustable output ranges:

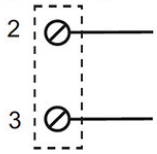




Drawings

Connections:

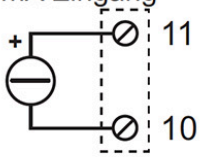
Spannungsversorgung



10 VDC bis 40 VDC
19 VAC bis 28VAC, 50/60 Hz
max. 2 W

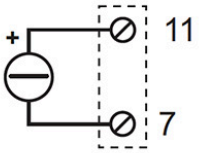
Stromeingang

mA Eingang



Die Schleife wird durch den Sensor versorgt.

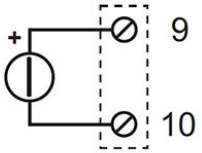
mA Eingang (2 Drähte)



Die Schleife wird durch das Modul versorgt.

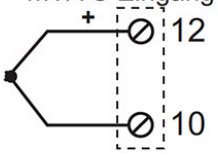
Spannungseingang

V

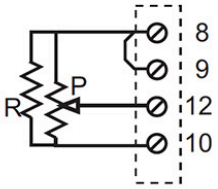


Eingang Thermoelemente

mV/TC Eingang

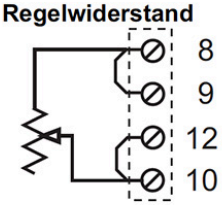


Eingang Potentiometer



Mit Widerstand R=330 Ω (nicht mitgeliefert), P= 1 Ω bis 100 kΩ

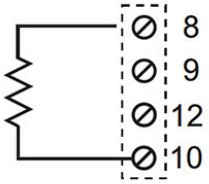
Regelwiderstand



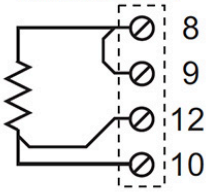
Regelwiderstand wahlweise von 500 Ω bis 25 kΩ

Eingang Pt100,Pt500,Pt1000

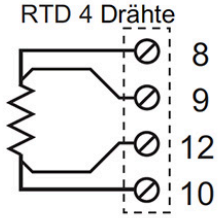
RTD 2 Drähte



RTD 3 Drähte

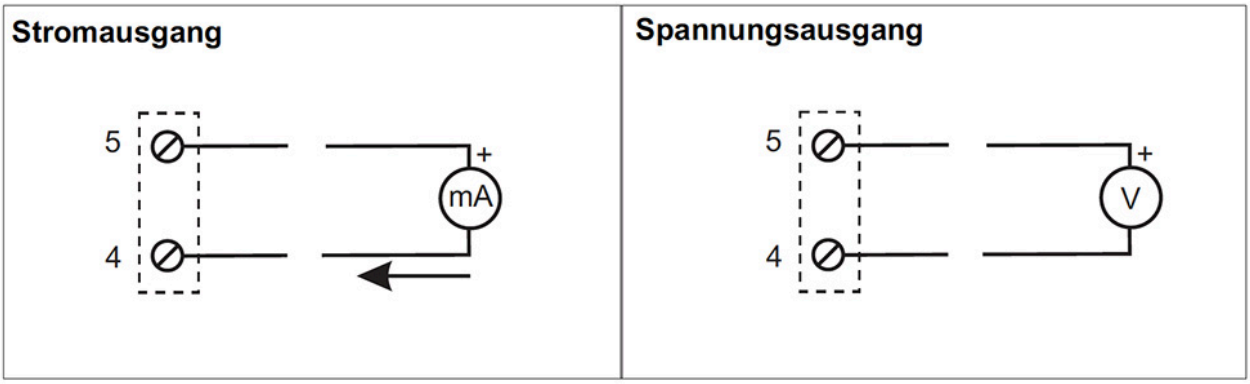


RTD 4 Drähte



Drawings

Output:



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