Measuring amplifier GSV-5L 010/10k/2

Item number: 11028



Highlights

- Miniature measuring amplifier with 6-wire technology
- High frequency range from 250 Hz to 10 kHz
- The new modell instead of old GSV-1L
- Tarier function via control line
- purely analog measuring distance for the best possible signal-to-noise ratio
- Improved long-term stability and temperature drift by avoiding mechanical balancing components
- Noise Amplitude <150 nV/V Pk-Pk bei 10 Hz Bandwidth
- Noise Amplitude < 1 µV/V Pk-Pk bei 2.5kHz Bandwitth

The miniature measuring amplifier GSV-5 measures only 23mm x 20mm x 6mm and can therefore be perfectly integrated into sensors. Solder pads are provided for wiring, it can be easily integrated into larger pcbs with optionally available pin strips.

Due to a high cut-off frequency up to 10 kHz, it is suitable for detecting static and dynamic signals from sensors with strain gauges. The purely analog measuring distance guarantees the best possible signal-to-noise ratio.

Variants with voltage output -10V to +10V and -5V to +5V are available. These are suitable for tensile-compressive measurement or for measuring torque turning right and left.

The input sensitivity in the standard version of GSV-5 is 2 mV/V. Other input sensitivity levels (0.5mV/V, 1mV/V, 2mV/V and 4mV/V) are factory-adjustable on request.

The automatic zero setting function stores the setting in non-volatile memory even in case of voltage underbilling.

In addition, we offer calibration of measuring electronics and system calibration in conjunction with a sensor.

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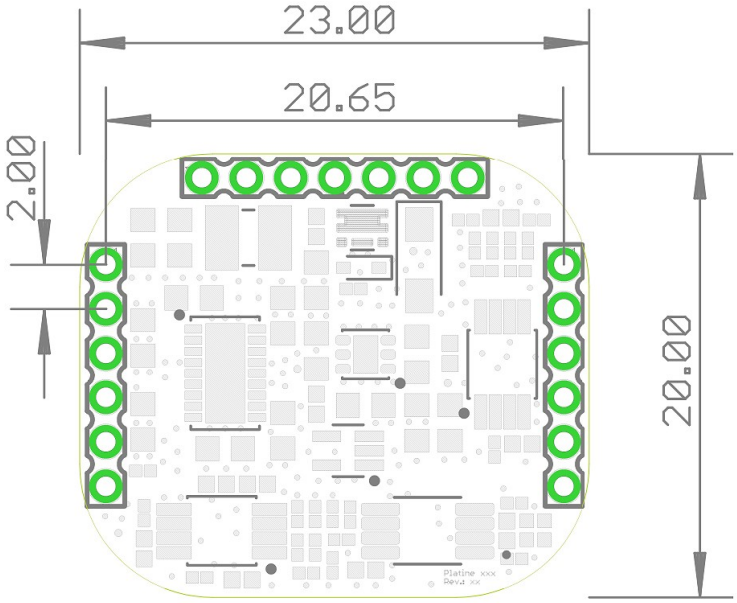
Stand: 21.03.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Dimensions	23 x 20 x 6	mm³
Housing	Circuit board	
Connection	Soldering connection	
Number of channels	1-channel	
Interface	±10V	
Functions	Tara, Gain	
bandbreite	250Hz, 2.5kHz, 10kHz	

Input analog		Unit
Input sensitivity-steps	2.0	mV/V

Output analog		Unit
Number of analog outputs	1	
Voltage output from	-10	
Voltage output to	10	
Output resistance - voltage output	47	Ohm

Accuracy data		Unit
Accuracy class	0,1%	
Relative linearity error	0.02	%FS
Temperature effect on the zero point	0.2	%FS/10°C
Temperature effect on the measuring sensitivity	0.1	%RD/10°C

Measuring frequency		Unit
Limit frequency (analog)	10	kHz

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Supply		Unit
Supply voltage from	10	V
Supply voltage to	28	V
Strain gauge bridge supply	5	V

Interface		Unit
Type of the interface	Analog	

Zero Adjustment		Unit
Tolerance	1	mV
Time period	50	ms
Debouncing time	2	s
Trigger level from	3	V
Trigger level to	24	V
Trigger edge	falling	

Environmental Data		Unit
Rated temperature range from	-10	°C
Rated temperature range to	65	°C
Operating temperature range from	-40	°C
Operating temperature range to	85	°C

Mounting

for Pin configuration

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X 1		X 2	
1	VDD: Power supply 12-24V	1	UF+: positive sensor line
2	GND : Mass	2	US+: positve bridge supply
3	Tara: Zero balance to 5V output sp.	3	US-: negative bridge supply
4	F-UA: external sensor line TARA	4	UF-: negative sensor line
5	GND : Mass	5	UD+: positive bridge signal
6	Uout: Analog output	6	UD-: negative bridge signal

TARE range of +/- 100% input sensitivity.

A short (<2s) high level >3V (max. 24V) at the tare input sets the analog output to 0 or 5V, depending on the variant.

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