

Measuring amplifier GSV-2TSD-DI

Item number: 2950



Highlights

- Tare function via control cable
- RS232, RS485 or CAN/CANOpen
- analog output ± 5 V
- optionally 4...20 mA output signal
- 24 Bit, to 200.000 Digits display resolution
- extensive software support
- two threshold generator
- trigger input

The GSV-2 is considered to be the "Classic" among the industrial amplifiers for sensors with strain gauges. Highest EMC protection according to severity level 4 (EN61000-4-2, 61000-4-4, EN50082-2) and beyond, IP66 enclosures and compactness are valued worldwide. The GSV is optionally available with display, plug connectors or zero-setting button and gain switching via relay contacts. The GSV-2 measuring amplifier is used in process monitoring and weighing technology.

Up to 2000 measured values per second can be transmitted via the RS232 serial interface. It has excellent digital filters. Filtering or averaging of the transmitted measured values is not necessary. Additionally an analog output (0...10 V, or ± 5 V or 4...20 mA) is available.

The GSV-2 also has an analogue output. This analog output is characterized by fully analog signal processing. Therefore, the output signal is not scalable depending on the sensor signal. A zero setting function for the analog output is available. Only two variant can be set: 2 mV/V at the input corresponds to 5V at the analog output, or 3.5 mV/V at the input corresponds to 5 V at the analog output. Alternatively, devices with 10 V analog output are also available (order option). The low-pass filter of the analog output adapts in 3 steps depending on the set data frequency: 2.5 Hz, or 260 Hz, or 1.7 kHz.

The analog output can be set to 0 via a digital control input. The adjustment range is 200% of the measuring range.

For a low-cost measuring amplifier in 24-bit technology, the measuring rate and the excellent software support are particularly remarkable.

The comprehensive software package GSVmultichannel is included in the scope of delivery.

The setting of the measuring amplifier concerning The measuring rate, switching thresholds or display can either be displayed via control characters or via the GSVmulti software.

For software developers, a Windows DLL is available for integrating the functions. Various functions, e.g. automatic zero-point readjustment and noise suppression are available.

Technical Data

Basic Data		Unit
Dimensions	174 x 65 x 196	mm ³
Housing	Desktop	
Connection	Plug connector	
Number of channels	1-channel	
Schnittstelle	USB, RS232, CANopen, Ethernet	

Input analog		Unit
Number of analog inputs	1	
Input sensitivity-steps	3.5	mV/V
Input resistance strain-gauge-half- /quarter-bridge	120 350 1000	Ohm
Input voltage from	0	V
Input voltage to	10	V
Input resistance-voltage	56	kOhm

Output analog		Unit
Number of analog outputs	1	
Voltage output from	-5	V
Voltage output to	5	V
Output resistance - voltage output	47	Ohm

Accuracy data		Unit
Accuracy class	0,05%	
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
Resolution	24	Bit

Measuring frequency		Unit
Data frequency from	1	Hz
Data frequency to	1000	Hz
Limit frequency (analog)	1700	Hz

Supply		Unit
Supply voltage from	10	V
Supply voltage to	29	V
Current consumption to	180	mA
Strain gauge bridge supply	2.5 5	V

Interface		Unit
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Zero Adjustment		Unit
Tolerance	0.01	%
Time period	1	ms
Debouncing time	4	ms
Trigger level from	3.4	V
Trigger level to	29	V
Trigger edge	Pegel	

Environmental Data		Unit
Rated temperature range from	0	°C
Rated temperature range to	50	°C
Operating temperature range from	-20	°C
Operating temperature range to	70	°C
Environmental protection	IP40	