

GSV-2TSD-DI -5+5/250/3,5/CANOpen



Highlights

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

Description

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...10V, or $\pm 5V$ or 4...20mA) 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: 2mV/V at the input corresponds to 5V at the analog output, or 3.5 mV/V at the input corresponds to 5V at the analog output. Alternatively, devices with 10V 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: 2.5Hz, or 260Hz, 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

Input analog

Number of analog inputs	1
Input sensitivity-steps	3.5 mV/V
Input resistance strain-gauge-full-bridge	87 ... 5000 Ohm
Input resistance strain-gauge-half- /quarter-bridge	120 350 1000 Ohm
Input voltage f	0 ... 10 V
Input resistance-voltage	56 kOhm

Output analog

Number of analog outputs	1
Voltage output f	-5 ... 5 V
Output resistance - voltage	47 Ohm

Measuring frequency

Data frequency f	1 ... 1000 Hz
Limit frequency (analog)	1700 Hz

Supply

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

Interface

Type of the interface	canopen usb rs232 can
Quantity of the interface	3

Zero adjustment

Tolerance	0.01 %
Time period	1 ms
Debouncing time	4 ms
Trigger level f	3.4 ... 29 V
Trigger edge	Level

Temperature

Rated temperature range f	0 ... 50 °C
Operating temperature range f	-20 ... 70 °C
Environmental protection	IP40

Basis Data

Housing	Desktop
Connection	Connector
Number of channels	1-Kanal



Precision

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



Order options

Type	Description
GSV-2TSD-DI -5+5/250/3,5	Output -5...5 V, 250 Hz, input ± 3.5 mV/V
GSV-2TSD-DI -5+5/250/3,5/CANOpen	Output -5...5 V, 250 Hz, input ± 3.5 mV/V, CANOpen
GSV-2TSD-DI -5+5/250/3,5/Ethernet	Output -5...5 V, 250 Hz, input ± 3.5 mV/V, Ethernet