# Measuring amplifier GSV-2TSD-DI CANOpen

Item number: 3902


## 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.

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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.

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# Technical Data

| Basic Data | | Unit |
|---|---|---|
| Dimensions | 174 x 65 x 196 | mm |
| Housing | Desktop | |
| Connection | Plug connector | |
| Number of channels | 1-channel | |

| 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 |

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| 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 |
|---|---|---|
| Type of the interface | CANOPEN \| USB \| RS232 \| CAN | |
| Quantity of the interface | 3 | |

| 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 | |

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