

GSV-8DS SubD15HD



Highlights

- 8-channel amplifier
- 8x input configurable
- Full, half, quarter bridge, 120- 350- 1000 ohm, PT1000, $\pm 10V$, Thermocouple Type K, IEPE Sensors
- Outputs 1x USB port, 8x analog output $\pm 10V$, 4 ... 20mA configurable, 1x UART/RS232/RS422
- optional EtherCat, CANbus / CANopen
- optional external extensions Ethernet, Wi-Fi, LTE
- 16x Digital Input Output
- 5x galvanic isolation: analog input, analog output, digital IO, UART, USB
- 8x 48kS / s simultaneous sampling
- 6-wire technology, bridge supply 2.5V, 5.0V, 8.75V configurable
- Digital filters IIR and FIR configurable
- Resolution <20 nV / V

Description

The 8-channel measuring amplifier GSV-8 is characterized by particularly high resolution at data rates from 1 Hz to 48000 Hz. The 8 channels are recorded simultaneously, without multiplexing.

As communication interfaces USB port, optional EtherCAT or CANbus are available.

The device has 8 configurable analog outputs ($\pm 10V$ et al and 4 ... 20mA).
An UART interface is used to control the measuring amplifier via a Raspberry PI.

There are 8 analog inputs. They are individually configurable as:

- DMS input for full bridges in 4- and 6-wire technology
- DMS input for half-bridges
- DMS input for quarter-bridge 120 ohms, 350 ohms, 1kOhm
- Single-ended input $\pm 10V$
- Input for PT1000 temperature sensor,
- Input for thermocouple type K.

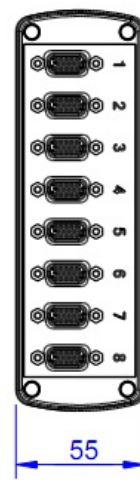
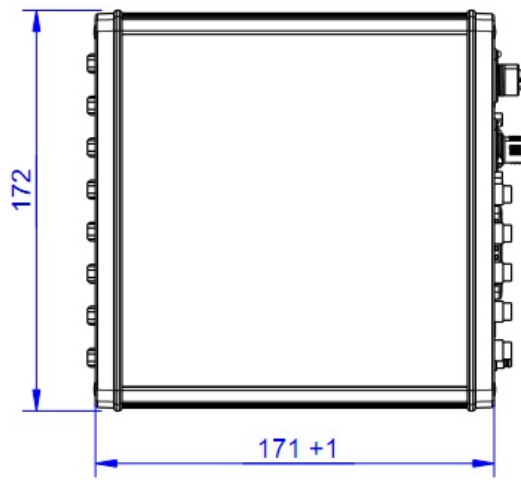
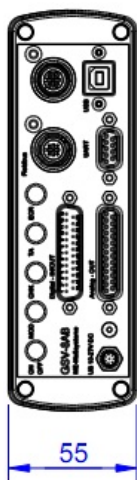
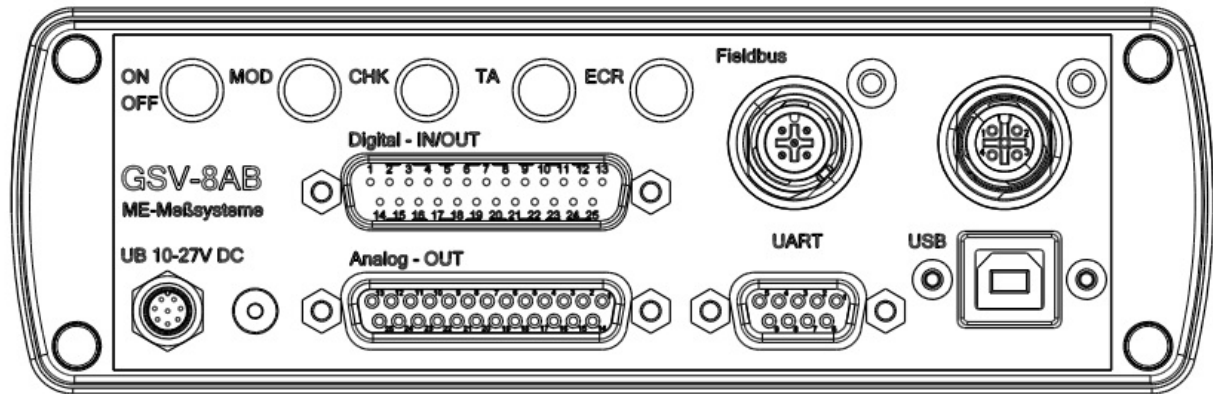
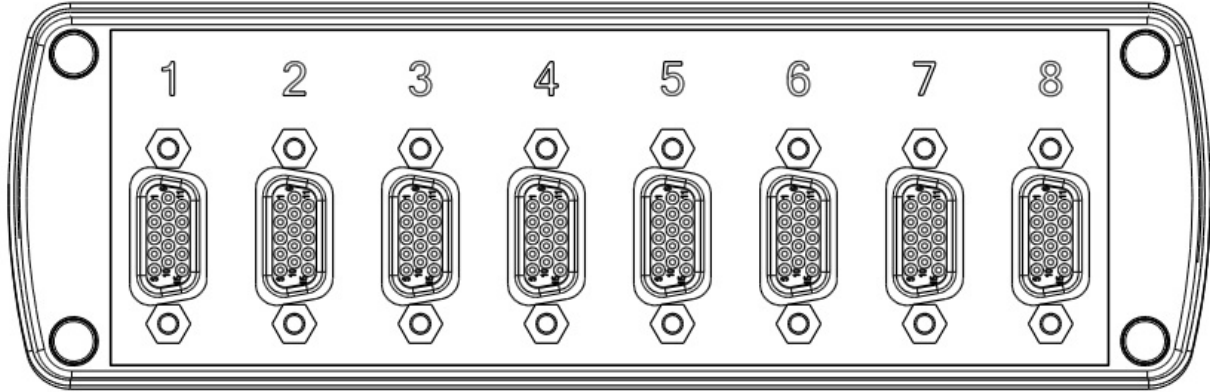
Sensors with IEPE (ICP) interface can be connected via an adapter plug with BNC socket, e.g. IEPE acceleration sensors, IEPE force sensors, etc.

The measuring amplifier GSV-8DS SubD44 is equipped with industrial connectors SubD44HD. This connector is suitable for connection of

- 1x 6-axis sensor K6D or alternatively with
- 2x for DMS 0-45-90 rosettes or 2x 3-axis sensors;
- 1x for 2 DMS T rosette or 1x 2-axis sensors;

The inputs 1 to 6 are connected in parallel on the connectors 1/6 to the inputs on the connectors 1/3 and 4/6.

Dimensions



Technical Data

Input analog

| | | |
|---|---------------|------|
| Input sensitivity-steps | 2.0 3.5 7 | mV/V |
| Input resistance strain-gauge-full-bridge | 60 ... 5 | Ohm |
| Input voltage f | -10 ... 10 | V |
| Input resistance-voltage | 10 | MOhm |
| Temperature input-type | PT1000 | |
| Temperature-measuring range from | -230 | °C |

Output analog

| | | |
|--------------------------------|------------|-----|
| Number of analog outputs | 8 | |
| Voltage output f | -10 ... 10 | V |
| Output resistance - voltage | 50 | Ohm |
| Current output f | 4 ... 20 | mA |
| Output resistance - current | 350 | Ohm |
| Isolation of the analog output | 2 | kV |

Measuring frequency

| | | |
|------------------|-------------|----|
| Data frequency f | 0 ... 48000 | Hz |
|------------------|-------------|----|

Supply

| | | |
|----------------------------|----------------|---|
| Supply voltage f | 12 ... 28 | V |
| Strain gauge bridge supply | 5 2.5 8.75 | V |

Interface

| | | |
|---------------------------|-------------------|--|
| Type of the interface | usb uart teds | |
| Quantity of the interface | 2 | |
| Version of the interface | USB 2.0 Fullspeed | |

Temperature

| | | |
|-------------------------------|------------|----|
| Rated temperature range f | 0 ... 50 | °C |
| Operating temperature range f | -20 ... 70 | °C |
| Environmental protection | IP64 | |

Basis Data



| | | |
|--------------------|----------------|--------------|
| Dimensions | 172 x 172 x 55 | mm x mm x mm |
| Housing | Aluminium | |
| Connection | Connector | |
| Connection type | Sub-D15HD | |
| Number of channels | 8-Kanal | |

Precision

| | | |
|--------------------------|-------|-----|
| Accuracy class | 0,05% | |
| Relative linearity error | 0.02 | %FS |



accessories

| | Description | Description |
|---|---------------------------|---|
|  | TCP-IP-Interface | TCP / IP interface for GSV-8 |
|  | WLAN-Interface | WLAN interface for GSV-8DS and GSV-8AS |
|  | Adapter SubD15HD | Adapter Sub-D 15-pin HD to terminal block for connection to the measuring amplifier GSV-8DS |
|  | Mounting-FEET-200 | Mounting plates for GSV-1A8 / GSV-1A8USB / GSV-8DS |
|  | GSM-Interface | GSM interface for GSV-8DS and GSV-8AS |
|  | Adapter Sub-D 25 | Adapter Sub-D 25-pin to 27-pin terminal block for connection to the measuring amplifier GSV-8DS |
|  | GSV-8DS Sync-cable/n | Sync cable for several 8-channel amplifiers GSV-8DS |
|  | GSV-8DS IEPE/BNC/SubD15HD | Adapter for connecting IEPE sensors to GSV-8DS; |

Order options

| Type | Description |
|----------------------|--|
| GSV-8DS SubD15HD | 8 SUB-D15 HD inputs for sensor |
| GSV-8DS CAN/SubD15HD | 8 SUB-D15 HD inputs for sensor, variant with CANbus / CANopen |
| GSV-8DS EC/SubD15HD | 8 SUB-D15 HD inputs for sensor, variant with EtherCat Fieldbus |
| GSV-8DS SubD44HD | 4 pieces Sub-D44HD |
| GSV-8DS CAN/SubD44HD | 4 pieces Sub-D44HD, variant with CANbus / CANopen |
| GSV-8DS | 4 pieces Sub-D44HD, variant with EtherCat Fieldbus |