

## GSV-8DS



### Highlights

- 8-channel amplifier
- 8x input configurable
- Full, half, quarter bridge, 120- 350- 1000 ohm, PT1000,  $\pm 10V$
- Outputs 1x USB port, 8x analog output  $\pm 10V$ , 4 ... 20mA configurable, 1x UART
- optional EtherCat, CANbus / CANopen
- 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  $<20 \text{ nV} / V$



## 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:

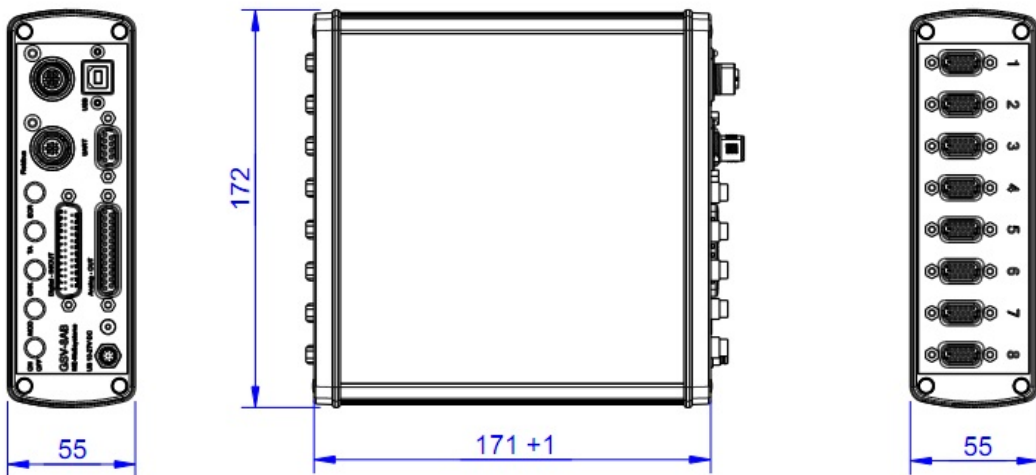
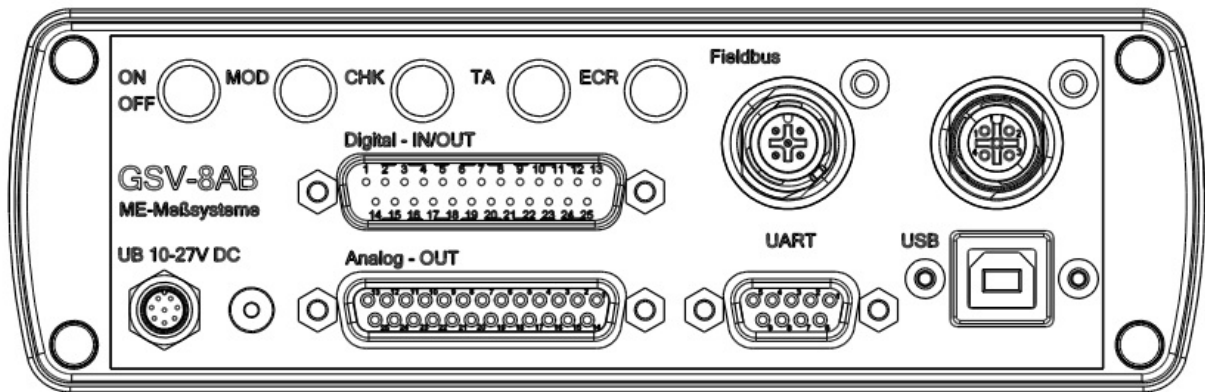
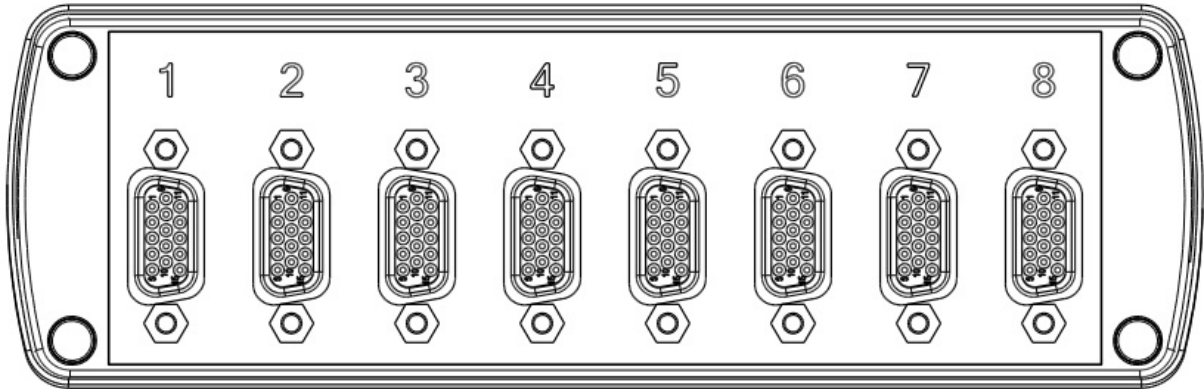
- DMS input for full bridges in 4- and 6-wire technology
- DMS input for half-bridges
- DMS input for quarter-bridge 120 ohms, 350 ohms, 1kOhm
- Single-ended input  $\pm 10V$
- Input for PT1000 temperature sensor.

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

### Basis Data

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

### Eingang analog

Input sensitivity-steps	2.0   3.5   7	mV/V
Input resistance strain-gauge-full-/half-bridge	60 ... 5	Ohm
Input voltage f	-10 ... 10	V
Input resistance-voltage	10	MOhm
Temperature input-type	PT 1000	
Temperature-measuring range from	-230	°C

### Precision

Accuracy class	0,05%	
Relative linearity error	0.02	%FS
Resolution	24	Bit

### Supply

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

### Interface

Type of the interface	usb   ethercat	
Quantity of the interface	2	
Version of the interface	USB 2.0 Fullspeed	

### Temperature

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



## Measuring frequency


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Data frequency to

48000 Hz

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## accessories

Description	Description
	Mounting-FEET-200
	Mounting plates for GSV-1A8 / GSV-1A8USB / GSV-8DS



## Orderoptions

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