

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 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:

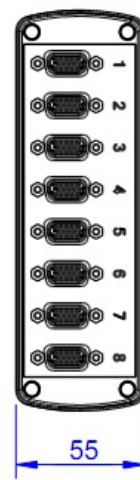
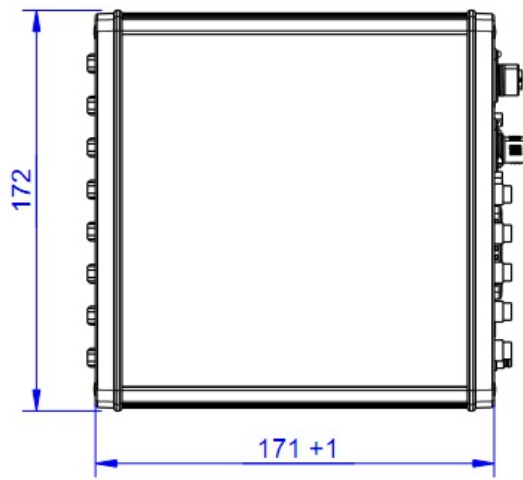
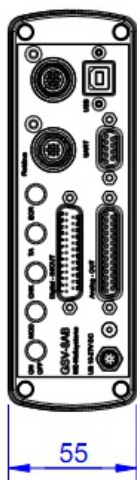
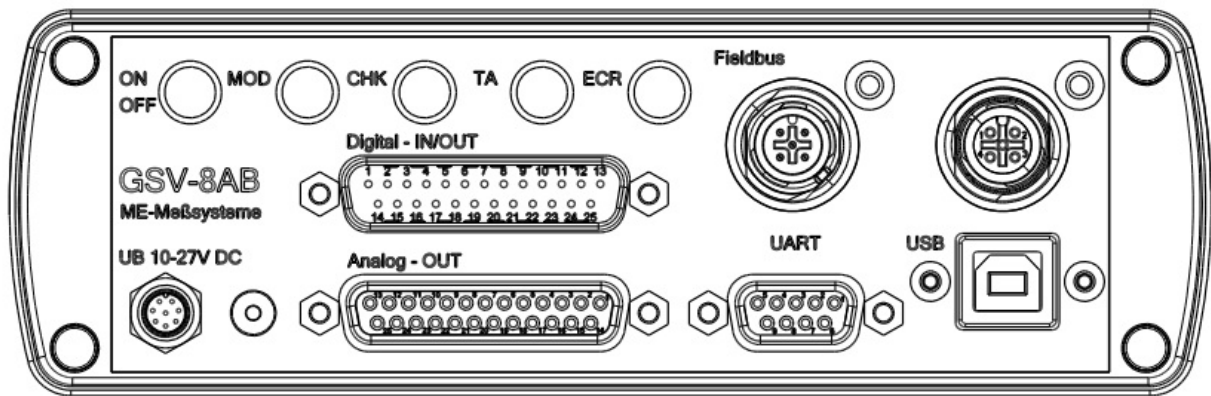
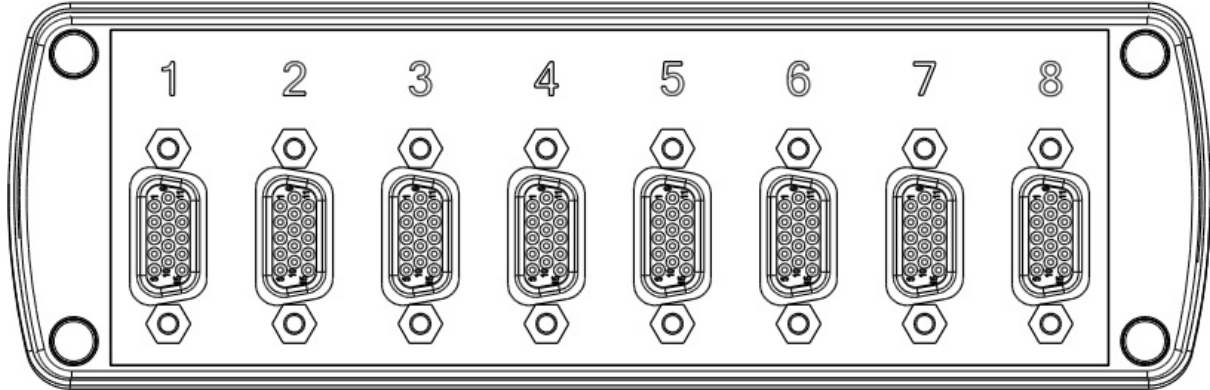
- DMS input for full bridges in 4- and 6-wire technology
- DMS input for half-bridges
- DMS input for quarter-bridge 120 ohms, 350 ohms, 1kOhm
- Single-ended input $\pm 10V$
- Input for PT1000 temperature sensor.

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

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

Basis Data








Dimensions	172 x 172 x 55	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 SubD44HD	Adapter Sub-D 44-pin HD to terminal block for connection to the measuring amplifier GSV-8DS
	Adapter Sub-D 25	Adapter Sub-D 25-pin to 27-pin terminal block for connection to the measuring amplifier 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