

Measuring amplifier GSV-8AS

Item number: 7162



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
- 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 $< 20 \text{ nV} / V$
- Protection IP67;

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).

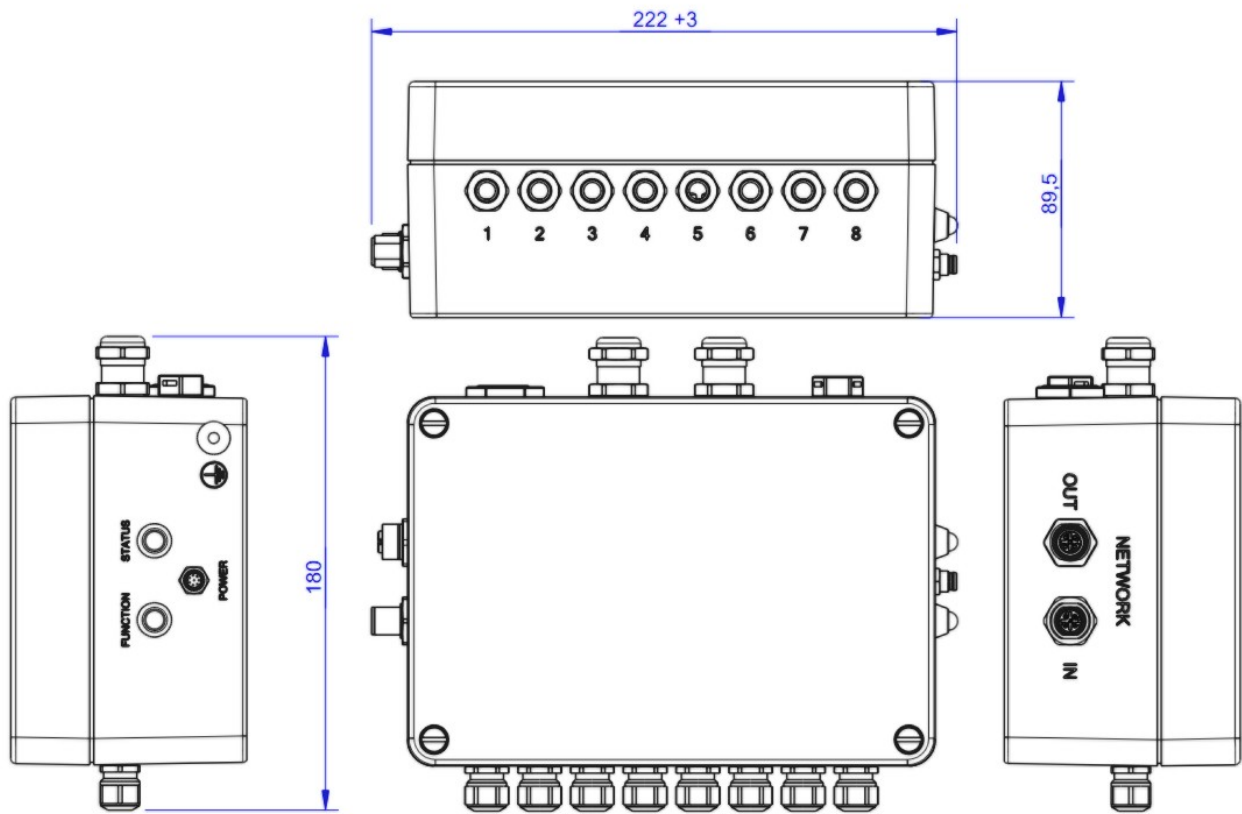
An UART interface is used to control the measuring amplifier via a Raspberry PI.

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.

Technical Drawing



Technical Data

Basic Data		Unit
Dimensions	180 x 222 x 90	mm ³
Housing	Aluminium	
Connection	Screw terminal	
Number of channels	8-channel	
Interface	USB, UART 3.3V	

Input analog		Unit
Number of analog inputs	8	
Input sensitivity-steps	2.0 3.5 7	mV/V
Input voltage from	-10	V
Input voltage to	10	V
Input resistance-voltage	10	MOhm
Temperature input-type	PT1000	
Temperature-measuring range from	-230	°C
Temperature-measuring range to	1500	

Output analog		Unit
Number of analog outputs	8	
Voltage output from	-10	V
Voltage output to	10	V
Output resistance - voltage output	50	Ohm
Current output from	4	mA
Current output to	20	mA
Maximum load resistance - current output	350	Ohm
Isolation of the analog output	2	kV

Accuracy data		Unit
Accuracy class	0,05%	
Relative linearity error	0.02	%FS
Resolution	24	Bit
Measuring frequency		Unit
Data frequency from	0	Hz
Data frequency to	48000	Hz
Supply		Unit
Supply voltage from	9	V
Supply voltage to	28	V
Strain gauge bridge supply	2.5 5 8.75	V
Interface		Unit
Type of the interface	USB UART TEDS	
Quantity of the interface	2	
Version of the interface	USB 2.0 Fullspeed	
Zero Adjustment		Unit
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	IP66/IP67	