

GSV-1A



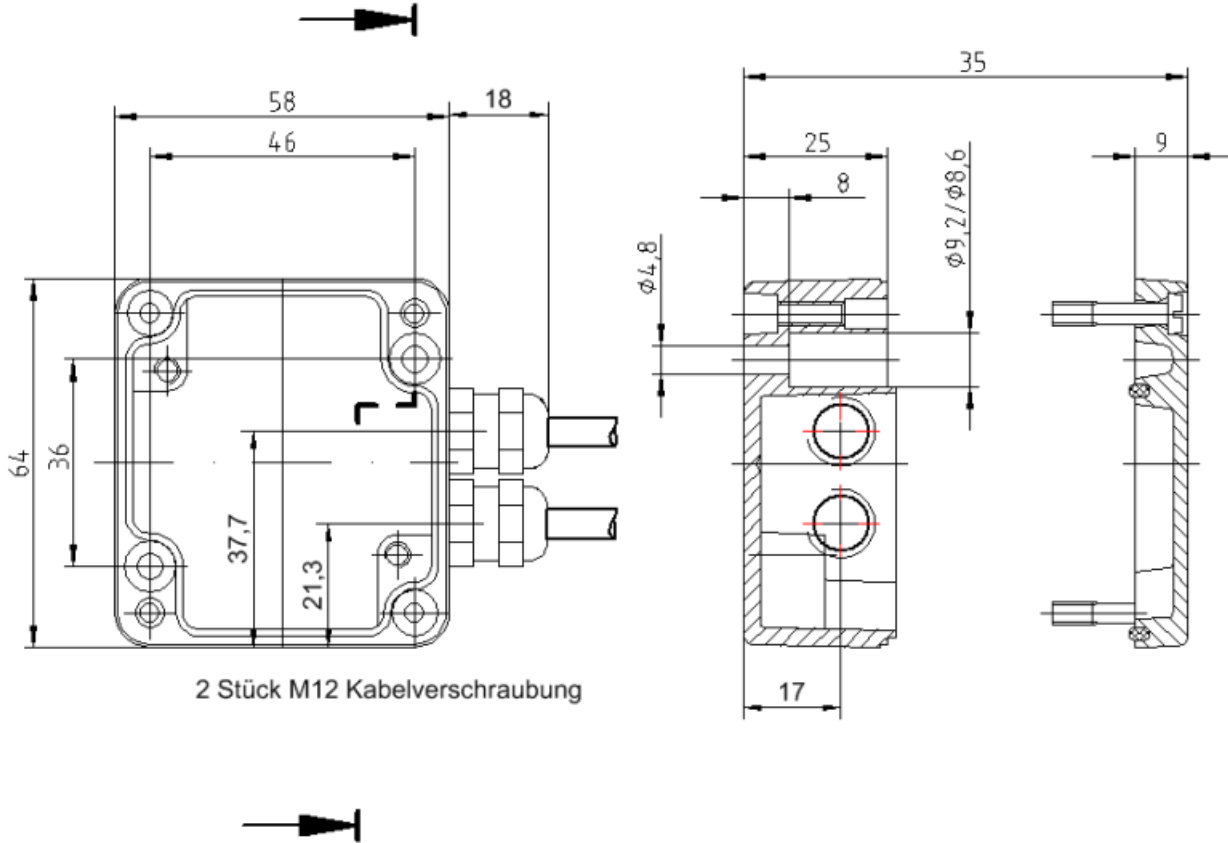
Description

The measuring amplifier GSV-1A is ideal for assembly near the sensor, because the aluminum housing (protection class: IP66) is very compact.

The high limiting frequency of 2.5 kHz is suitable for the detection of static and dynamic signals from sensors with strain gauges.

The automatic automatic zero adjustment store settings permanently in the nonvolatile memory also by voltage interruption.

Dimensions



Technical Data

Input analog

Input sensitivity-steps	0.2 0.5 1.0 2.0	mV/V
Input resistance strain-gauge-full-/half-bridge	87 ... 5000	Ohm

Output analog

Number of analog outputs	1
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Supply

Supply voltage f	11 ... 29	V
Current consumption f	55 ... 75	mA
Strain gauge bridge supply	5	V

Interface

Type of the interface	Analog
Quantity of the interface	1

Zero adjustment

Type	digital	
Tolerance	5	mV
Time period	90	ms
Debouncing time	4	ms
Trigger level f	3.5 ... 30	V
Trigger edge	falling	

Temperature

Rated temperature range f	-10 ... 65	°C
Operating temperature range f	-40 ... 85	°C
Storage temperature range f	0 ... 0	°C
Environmental protection	IP66	

Basis Data

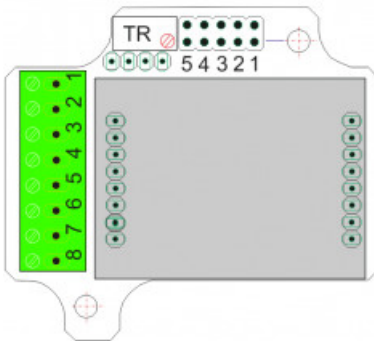
Housing	Aluminium
Connection	screw terminal
Number of channels	1-Kanal

Precision

Accuracy class	0,1%	
Relative linearity error	0.02	%FS
Temperature effect on the zero point	0.01	%FS/10°C
Temperature effect on the measuring sensitivity	0.1	%RD/10°C

Mounting

Pin configuration



The GSV-1A measurement amplifier can also optionally be delivered with type 763 plug connectors.

Terminal		Series 763 (M12) socket		Series 763 (M12) pins	
1	-U _D Negative differential input	4	black		
2	+U _D Positive differential input	3	blue		
3	+U _S : Positive bridge excitation (5V)	1	brown		
4	-U _S : Negative bridge excitation (GND)	2	white		
5	GND: Ground			3+5	blue+grey
6	+U _A : Analogue output			2	white
7	+U _B Voltage supply (12V or 24V)			1	brown
8	T: Control input zero adjustment			4	black

Adjustment of the input range

The input sensitivity can be adjusted by moving the jumper. The input sensitivity for position 1 is indicated in the type designation. In position 5, the amplification can be set in a continuously variable manner using the "TR" trimmer.

Position	Amplification Factor	Input sensitivity in mV/V for GSV-1A with 2 mV/V	Input sensitivity in mV/V for GSV-1A with 3.5 mV/V
1	1	2	3.5
2	2	1	1.75




3	4	0.5	0.85
4	10	0.2	0.35
5	1...10	2 ... 0.2	3.5 ... 0.35

For an amplification factor 1, the complete output signal is reached at a modulation of 100%.

For an amplification factor of 2, the complete output signal is already reached at a modulation of 50%.

Various versions are available, e.g. with voltage output +5V, with voltage output +10V, with current output 4...20mA, and with various input sensitivities +2mV/V and +3.5mV/V.

accessories

Description	Description
	Configuration 5p/m/M12
	Connector Type Coninvers, 5 pin, pins (male), terminated on cable

Orderoptions

Type	Description
GSV-1A 010/250/2	Output -10 ... 10 V, 250 Hz, input ± 2 mV/V (standard type)
GSV-1A 010/250/2/M12	Output -10 ... 10 V, 250 Hz, input ± 2 mV/V, round plug connector m12
GSV-1A 010/250/3.5	Output -10 ... 10 V, 250 Hz, input ± 3.5 mV/V
GSV-1A 010/2k5/2	Output -10 ... 10 V, 2.5 kHz, input ± 2 mV / V
GSV-1A 010/2k5/2/M12	Output -10 ... 10 V, 2.5 kHz, input ± 2 mV / V, round plug connector m12
GSV-1A 010/10khz/2	Output -10 ... 10 V, 10 kHz, input ± 2 mV / V
GSV-1A 4-20/250/2	Output 4 ... 20 mA, 250 Hz, input ± 2 mV/V
GSV-1A 4-20/250/2/M12	Output 4 ... 20 mA, 250 Hz, input ± 2 mV/V, round plug connector m12
GSV-1A 4-20/250/3.5	Output 4 ... 20 mA, 250 Hz, input ± 3.5 mV/V
GSV-1A 4-20-12/250/2/M12	Output 12 ± 8 mA, 250 Hz, input ± 2 mV/V, round plug connector m12