

GSV-11H



Highlights

- Taring function via control cable
- 20 Hz filter in the standard design
- 100Hz filter optional
- Amplification configurable
- 4...20mA output signal
- 0V ...10V output optional
- 5V \pm 5V output optional
- 2.5V \pm 2.5V output optional
- Power consumption <40 mA

Description

The GSV-11H is a measuring amplifier with analogue output for strain gauge full bridges.

In addition to the current output 4...20mA, voltage outputs 0.0...10.0V or 0.0V...5.0 volt are also available as an option.

The particular features of GSV-11H are

- the automatic zero adjustment across 2 mV/V (100% of the largest) of measuring range
- the low current consumption of just 38mA (plus output current),
- the optional amplification levels via jumpers, and
- the option to set the amplification in a continuously variable manner.

The zero adjustment is triggered by means of a control signal from the PLC or via a microswitch on the printed circuit board. The control level at the "tare" taring input should lie in the range of 10 volt to 30 volt.

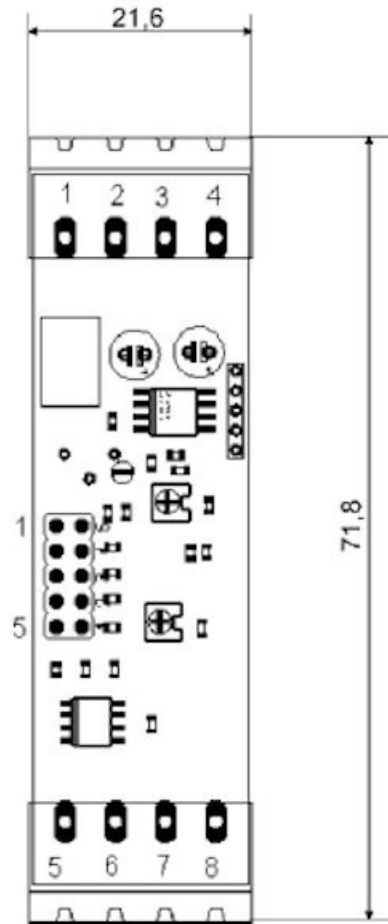
The zero adjustment is triggered with the falling edge of a control level of at least 4ms at the tare input.

The GSV-11H is also available in another version as a printed circuit board (GSV.11L).

Even for a high input sensitivity of 0.5 mV/V, the range for the zero adjustment is a full 2mV/V so that even the smallest load changes are shown for a preload of e.g. 80% (magnify function).

The GSV-11H can supply up to 4 parallel weighing cells with a 350 ohm bridge resistance each and is therefore also perfectly suitable for applications in weighing technology.

Dimensions



Technical Data

Basis Data

Housing	top-hat rail
Connection	screw terminal
Number of channels	1-Kanal

Input analog

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

Precision

Accuracy class	0,1%
Relative linearity error	0.02 %FS
Temperature effect on the zero point	0.1 %FS/10°C
Temperature effect on the measuring sensitivity	0.05 %RD/10°C

Supply

Supply voltage f	21 ... 28	V
Strain gauge bridge supply	5	V

Zero adjustment

Type	Regulation
Tolerance	1 %FS
Time period	250 ms
Debouncing time	4 ms
Trigger level from	10.5 V
Trigger edge	falling

Temperature

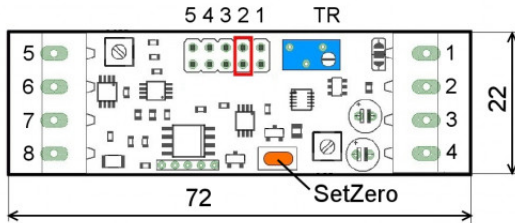
Rated temperature range f	-10 ... 65	°C
Operating temperature range f	-40 ... 85	°C
Environmental protection	IP40	

Measuring frequency

Limit frequency (analog)	20	Hz
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Mounting

Amplification levels



Position	Amplification factor	Input sensitivity in mV/V
1	1...10	2...0,2
2	1	2
3	2	1
4	4	0,5
5	10	0,2

Terminal assignment

Terminal	Designation	
1	Ub (24V DC)	Supply voltage
2	GND	Ground supply voltage and signal
3	Ua (4...20mA / 0...10V)	Signal 4...20mA (order option 0...10V)

Terminal	Designation	
4	I_{are}	Control input for zero adjustment
5	-Ud	- Differential input (-sensor signal)
6	+Ud	+Differential input (+sensor signal)
7	+Us	+ Sensor supply (+excitation)
8	-Us	- Sensor supply (-excitation)

Orderoptions

Type	Description
GSV-11H 010/20/2	Output 0...10 V, 20 Hz, input 2 mV/V (standard type)
GSV-11H 4-20/20/2	Output 4...20 mA, 20 Hz, input 2 mV/V (standard type)
GSV-11H 010-5/20/2	Output 5 V \pm 5 V, 20 Hz, input 2 mV/V
GSV-11H 4-20-12/20/2	Output 12 mA \pm 8 mA, 20 Hz, input 2 mV/V
GSV-11H 05-5/20/2	Output 5 V \pm 2.5 V, 20 Hz, input 2 mV/V
GSV-11H 010/20/3.5	Output 0...10 V, 20 Hz, input 3.5 mV/V
GSV-11H 4-20/20/3.5	Output 4...20 mA, 20 Hz, input 3.5 mV/V
GSV-11H 010-5/20/3.5	Output 5 V \pm 5 V, 20 Hz, input 3.5 mV/V
GSV-11H 4-20-12/20/3.5	Output 12 mA \pm 8 mA, 20 Hz, input 3.5 mV/V
GSV-11H 05-5/20/3.5	Output 5 V \pm 2.5 V, 20 Hz, input 3.5 mV/V