

## Measuring amplifier GSV-11H 010/20/2

Item number: 1416



### Highlights

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

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.

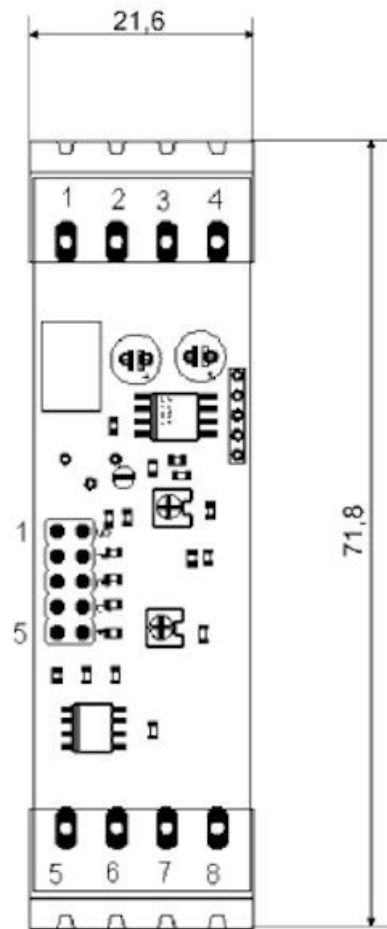
The zero adjustment is triggered with the falling edge of a control level of at least 4ms at the tare input.

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.

## Technical Drawing



## Technical Data

Basic Data			Unit
Dimensions	75 x 25 x 53		mm <sup>3</sup>
Housing	Din rail		
Connection	Screw terminal		
Number of channels	1-channel		
Functions	Tara, Range		

Input analog			Unit
Input sensitivity-steps	2.0   1.0   0.5   0.2		mV/V

Output analog			Unit
Number of analog outputs	1		
Voltage output from	0		V
Voltage output to	10		V

Accuracy data			Unit
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

Measuring frequency			Unit
Limit frequency (analog)	20		Hz

Supply			Unit
Supply voltage from	21		V
Supply voltage to	28		V
Strain gauge bridge supply	5		V

Interface		Unit
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Zero Adjustment		Unit
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Type	regulation	
Tolerance	1	%FS
Time period	250	ms
Debouncing time	4	ms
Trigger level from	10.5	V
Trigger edge	falling	

Filter		Unit
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Type	low-pass	
Limit frequency (analog) from	20	Hz
Order	3	
Algorithm	Bessel	

Environmental Data		Unit
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Rated temperature range from	-10	°C
Rated temperature range to	65	°C
Operating temperature range from	-40	°C
Operating temperature range to	85	°C
Environmental protection	IP40	

## 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)
4	Tara	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)