

GSV-6L

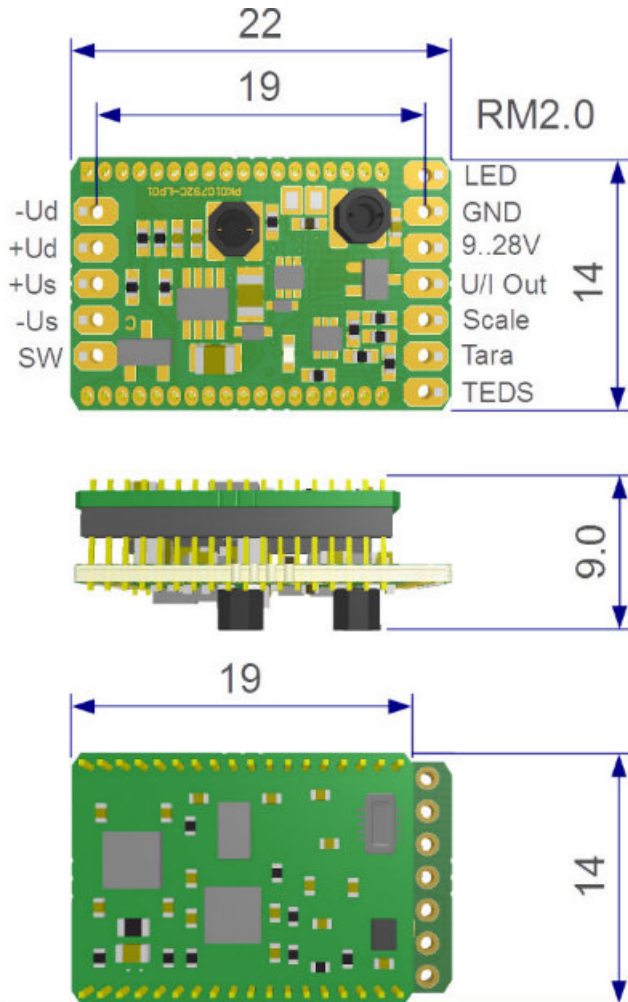


Description

The GSV-6L amplifier supplements the GSV-6CPU with a configurable one analog output. The GSV-6L is designed for integration in sensors and in the Integration in housings with the smallest possible dimensions, such as connector housing, type "GSV-6K". Even after potting, all properties of the GSV-6L can be achieved over two Completely configure control line "Tare" and "Scale". Via TEDS input, the calibration data is taken from the electronic data sheet the sensor is taken over automatically. The analog output will then open automatically the slope stored in the TEDS is adjusted.

Read more about [TEDS](#)

Dimensions



Technical Data

Input analog

Number of analog inputs	1
Input sensitivity-stepsless f	0.1 ... 8 mV/V
Input resistance strain-gauge-full-bridge	60 ... 20000 Ohm
Input voltage f	0 ... 3 V

Output analog

Voltage output f	-10 ... 10 V
Output resistance - voltage	0.12 Ohm
Current output f	0 ... 20 mA

Measuring frequency

Data frequency f	1 ... 25 Hz
Sampling frequency	50 kHz

Supply

Supply voltage f	12 ... 24 V
Current consumption from	22 mA
Strain gauge bridge supply	3 V

Interface

Type of the interface	teds
Quantity of the interface	1

Zero adjustment

Tolerance	0.1 %FS
Time period	1 ms
Debouncing time	1 s
Trigger level f	9 ... 28 V
Trigger edge	rising

Temperature

Rated temperature range f	-10 ... 70 °C
Operating temperature range f	-25 ... 85 °C
Environmental protection	IP00/IP66

Basis Data

Housing	PCB
Connection	Solder connection
Number of channels	1-Kanal

Precision

Accuracy class	0,1%
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Temperature effect on the zero point	0.05	%FS/10°C
Temperature effect on the measuring sensitivity	0.01	%RD/10°C
Resolution	16	Bit

Manual

Note on the bridge circuit: The allowable range for + Ud and -Ud is 1.32V to 1.68V. The maximum, unbalanced series resistor (one-sided series resistance in + Us or -Us) must not exceed 26% of the bridge resistance.

The table lists the maximum possible series resistors, which may be unilaterally connected in + Us or -Us.

Strain Gauge bridge circuit	Max. Series resistor unbalanced
350 Ohms	91 Ohms
700 Ohms	182 Ohms
1000 Ohms	260 Ohms
1400 Ohms	364 Ohms

Mounting

Terminal assignment

5-pin terminal strip

Designation	Function	Comment
Us+ (V_DMS)	positive bridge supply 3 V	60 mA, short-circuit proof
Ud-	negative bridge output	
Ud+	positive bridge output	
Us- (AGND)	negative bridge supply (AGND)	
SW	threshold value output, OpenDrain 200mA, 30V	

7-pin terminal strip

Designation	Function	Comment
LED	connection for LED	max. 4mA, 200 Ohm series resistor;
GND	ground, supply voltage	
9...28V	supply voltage	with polarity reversal protection 9...28V or 2V over the maximum output signal;
U/I Out	analog output	voltage $\pm 10V$, current 4...20 mA
Scale	control cable for Scale or "ENTER"	High Active; duration as for GSV-6CPU
Tara	control cable for "Tara" or "UP"	High Active; duration as for GSV-6CPU
TEDS	input for TEDS	as GSV-6CPU

Functions





The functions can be adjusted using the "Tare" and "Scale" control cables.

A simulator to configure the GSV-6 via control cables is also available via

<http://www.me-systeme.de/click/click.php>

Function	Settings
Analog output "type"	0...10V, ±10V, 0...5V, ±5V, 4...20mA, 0...20mA
Analog output "Offset"	0%, 10%, 12.5%, 20%, 25%, 30%, 37.5%, 40%, 50% Example: an offset of 50% with an analogue output 0...10V shifts the zero point at 0 mV/V to 5V. With an output of 4...20mA, the zero point is shifted to 12mA with an offset of 50%. The input sensitivity is shown at all times on the remaining "End Value - Offset" area.
Data frequency in Hz (Updating of measurement values at the analogue output or interface)	1, 2, 10, 20, 50, 100, 200, 500, 1k, 2k, 5k, 10k, 20k, 25k; The smallest data frequency at the output is 10Hz. At levels below 10Hz, a second-order IIR filter is used.
input sensitivity in mV/V	0.1, 0.2, 0.3, 0.4, 0.5, 1, 2, 3, 4, 5, 8 (standard mode) 0.1, 0.2, 0.3, 0.4, 0.5, 1, 2, 3, 4, 5, 8 (high-res. mode) In high-res. mode the physical measuring range is restricted, which means there is less "reserve" available for a zero adjustment with the Tare function. Available physical measuring ranges: 8 mV/V, 5 mV/V, 2 mV/V, 1 mV/V The input sensitivity can also be set to 5-digit precision using the Tare and Scale cables in the ClickRClickR menu ("seamless").
Adjust autoscale level	The autoscale level allows the output signal to be defined as a % of the end value, which is shown by implementing "Scale" with the current weight limit. Default setting: 100% (a weight limit of 100% is expected). The autoscale level can be adjusted in stages, from 5% within the range 0 to 100%. When "0%" is set, the autoscale function is deactivated.
Level for threshold value indicator "On"	The switch-on threshold of the threshold value indicator can be adjusted in steps of 5% within the range 0 to 100%. When 0% is set, the threshold value indicator is deactivated.
Level for threshold value indicator "Off"	The switch-off threshold of the threshold value indicator can be adjusted in steps of 5% within the range 3 to 98%. The switch-off threshold should be set lower than the switch-on threshold. If "0%" is set, the switch-off threshold is deactivated.
Operating mode	"Actual value display" (Default), Maximum value display, Inversion of the display, Non-volatile Tare setting (default) or volatile when switched off, "Gradient" setting (special function, not included in the standard configuration), TEDS activated (default) / deactivated.
Load pre-setting	Selecting this menu option loads the default settings included on delivery. ±10V, 1 mV/V, 100Hz, Actual value display, TEDS active, Non-inverted display,

accessories

Description	Description
 Configuration GSV-6	as a free service we offer the configuration for GSV-6K and GSV-6L, setting parameters are selectable
 GSV-6L-needle adapter	Test adapter for configuration and calibration by GSV-6L
 Housing GSV-6L	Housing for mounting GSV-6L
 TSE-397C	Silicone rubber adhesive and sealant; transparent, high viscosity, 82.8ml