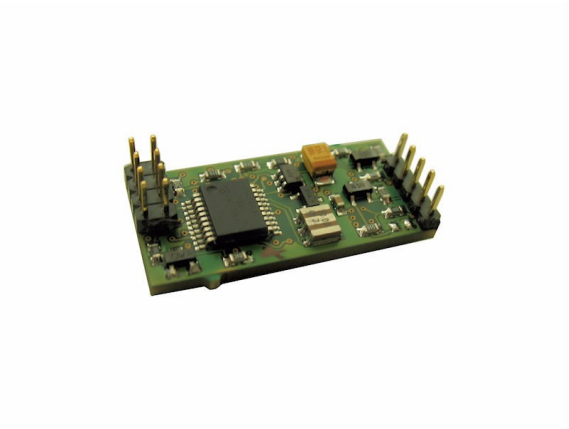
Measuring amplifier GSV-3LS 05-2,5/1k2/2

Item number: 1477



The GSV-3LS circuit board contains the most important functions of the GSV-3 series.

It is suitable for integration in sensors and electronic circuits with strain gauges.

When designing electronic evaluation circuits, only circuits for the supply voltage and suitable measures for electromagnetic compatibility (EMC) are to be provided.

The serial output of the UART interface works with TTL levels. The measuring amplifier GSV-3LS also has an analog output 2.5V + - 2.25V. The analogue output, unlike the serial output, is not calibrated and not adjusted and may be e.g. be used as an additional monitor output.

The bridge supply voltage is set to 2.5 volts. The current consumption is less than 24 mA at maximum data frequency and with a 350 ohm strain gauge.

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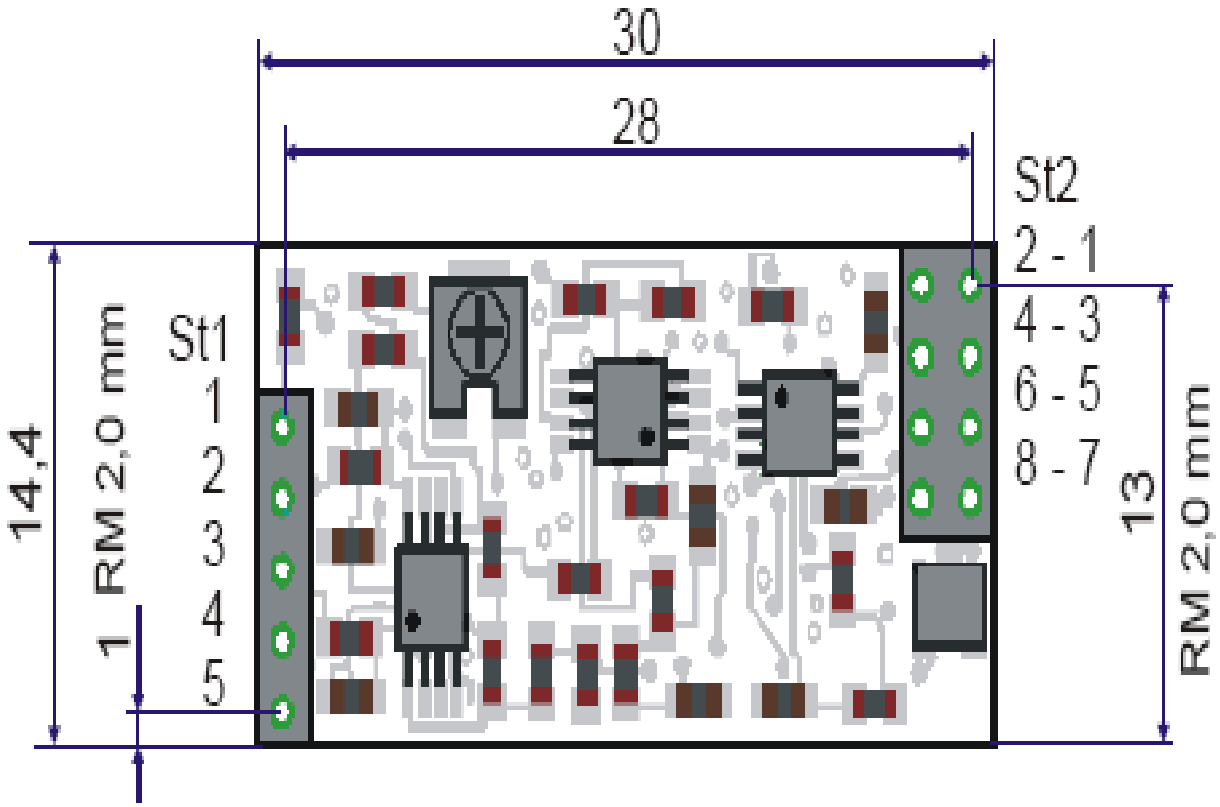
Stand: 21.03.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Dimensions	30 x 15 x 10	mm³
Housing	Circuit board	
Connection	Soldering connection	
Number of channels	1-channel	
Interface	UART (5V)	

Input analog		Unit
Number of analog inputs	1	
Input sensitivity-steps	2.0	mV/V

Output analog		Unit
Number of analog outputs	1	
Voltage output from	-2.25	V
Voltage output to	2.25	V

Accuracy data		Unit
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	0.01	%RD/10°C
Resolution	16	Bit

Measuring frequency		Unit
Limit frequency (analog)	1220	Hz

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Supply		Unit
Supply voltage from	5	V
Supply voltage to	5.6	V
Current consumption from	24	mA
Strain gauge bridge supply	2.5	V

Interface		Unit
Type of the interface	UART	
Version of the interface	UART Schnittstelle TTL-RS232	

Zero Adjustment	Unit

Environmental Data		Unit
Rated temperature range from	-10	°C
Rated temperature range to	65	°C
Operating temperature range from	-20	°C
Operating temperature range to	80	°C
Environmental protection	IP40	

Mounting

Pin connection

St1		St2	
1	-UD : negative differential input	1	GND: ground

2	+UD : positive differential input	2	+UB : voltage supply
3	+US : positive bridge supply	3	TxD (from GSV-3)
4	-US : negative bridge supply (GND)	4	RxD (for GSV-3)
5	+UA : analog output	5	T: control input "zero balance"
		6	RB0
		7	S1: switch output 1
		8	RB6

The attainable signal/noise ratio depends on the ambient conditions (cable length, shielding), the configured data rate and the FIR filtration which can be optionally applied. The figure below shows the resolution with a connecting cable 1m in length, measurement range ±2mV/V, FIR filter switched off.