

GSV-3CAN 05-2,5/1k2/2



Highlights

- CAN Bus
- Sampling frequency 10 kHz
- Data rate to 1000 /s
- galvanic cutoff
- with connector M8 or Cabel



Description

The GSV-3CAN measuring amplifier is suitable for networking of sensors, such as force sensors, strain sensors and weighing cells by way of the "Controller Area Network" (CAN).

With this measurement amplifier the low analog voltages of strain gages are processed close to the sensor and can be transferred interference-free and in real-time to the control room or the data logger.

Having dimensions of only 64mm x 58mm x 34mm in robust aluminum diecast housing (IP66) the GSV-3CAN combines outstanding performance for strain gage measurement technology, such as

10kHz sampling rate,

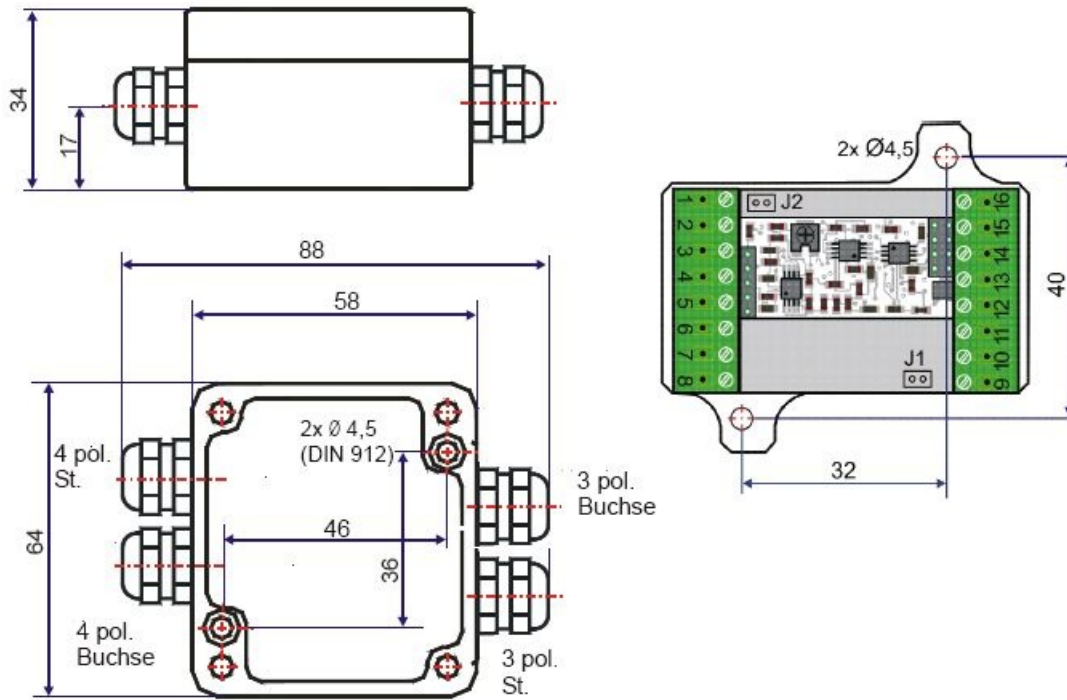
16 bit resolution,

galvanic cutoff of the network.

In particular the many adjustment capabilities make this measurement amplifier an all-round talent in measurement data collection. The measured values can be decentrally "compacted", e.g. by selection of FIR- and mean value filters. Individual value query and transfer with adjustable, continuous data rate are just as possible as external triggering or the event-driven transfer of measurement data.

Power supply by 12V or 24V DC on-board power supply are just as much part of the program as e.g. up to two threshold outputs and an analog monitor output with 0...5 volts output voltage.

Dimensions



Technical Data

Basis Data

Housing	Aluminium
Connection	Connector
Number of channels	1-Kanal

Input analog

Number of analog inputs	1
Input sensitivity-steps	2.0 3.5 1.0 mV/V
Input resistance strain-gauge-full-/half-bridge	87 ... 5000 Ohm

Precision

Accuracy class	0,1%
Relative linearity error	0.02 %FS
Resolution	16 Bit

Supply

Supply voltage f	12 ... 29 V
Current consumption from	80 mA
Strain gauge bridge supply	2.5 5 7.5 V

Interface

Type of the interface	can
Quantity of the interface	1
Version of the interface	CAN V2.0 A,B, ISO11898

Zero adjustment

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
Environmental protection	IP66

Measuring frequency

Limit frequency (analog)	1250 Hz
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Mounting

Pin Configuration

PIN		Description
1	-U _D	negative differential input
2	+U _D	positive differential input
3	+U _S	positive bridge supply
4	-U _S	negative bridge supply
5	AUXin	freely usable input
6	U _A	analog output 0...5 V
7	S ₁	switching output 1
8	T	control input "zero balance"
9	U _B	supply voltage 24V DC
10	GND	ground supply voltage
11	CAN_GND	ground CAN Bus
12	CAN_L	dominant low
13	CAN_H	dominant high
14		internally occupied
15		internally occupied
16		internally occupied
J1		termination resistance 120 Ohm, if J1 is set
J2		factory Default (as on the label) for CAN bus settings is reloaded after power-on reset, if J2 is set.

Pin Configuration for 718 Plug Connector

Front view of plug connectors

4-pole built-in plug RSMF4

Pin	Function	GSV-3CAN	Wire colour
1	supply voltage 11...28 V DC	9	brown
2	Analog output 0...5V	6	white
3	GND supply voltage	10	blue
4	Tare-	8	black

4-pole built-in jack RKMf4

Pin	Function	GSV-3CAN	Wire colour
1	positive sensor supply +U _S	3	brown
2	negative sensor supply -U _S	4	white
3	positive differential input +U _D	2	blue
4	negative differential input -U _D	1	black

Dreipolige 3-pole built-in plug RSMF3RSMF3

Pin	Function	GSV-3CAN	Wire colour
1	transmit Data TxD / CAN_H	13	brown
3	receive data RxD / CAN_L	12	blue
4	GND	11	black

The reachable ratio signal/noise is dependant on the ambient conditions (cable length, shield), the set data rate and the optionally switched on FIR filter. The diagram shows the resolution with 1m connection cable, measurement range $\pm 2\text{mV/V}$, FIR filter switched off

