Measuring amplifier GSV-2MSD-DI IP43

Item number: 4740



Highlights

- Data logger with SD-card slot
- USB-interface
- for strain gauge quarter, half and full bridges
- 0...10 V, potentiometric
- 24 bit resolution
- 6 sensor configurations recallable
- battery operation
- real time clock
- IP65 execution as option
- 3750Hz measuring rate

GSV-2MSD-DI is a measuring amplifier with an integrated data logger, which is used either as hand device or for the stationary application.
Due to compact dimensions GSV-2MSD-DI fites into any pocket.
The connection of sensors occurs via 15 pole Sub-D plug connector. Force sensors, torque sensors, strain gauge quarter, half and full bridges can be connected.
The measuring amplifier has an integrated bridge completion for 120 Ohm, 350 Ohm and 1000 Ohm strain gauges.
As well active sensors with 0...10V output signal and potentiometric displacement sensors can be connected.
The device is also available in the protection type IP65. The SD- card slot and the USB-interface are closed with an additional covering. The Sub-D 15 sensor connection and the housing seals are strengthend for this protection type.
The measuring data is saved with a time stamp. Different operating modes, as e.g. single value query, permanent record, min-max mode and other settings are available.
The measuring rate can be set up to 3750 Hz. The record on SD-card is up to 1000 Hz possible.
Up to 6 sensor configurations can be defined and requested, e.g. for the sensor change or for the quick set of the measuring conditions.

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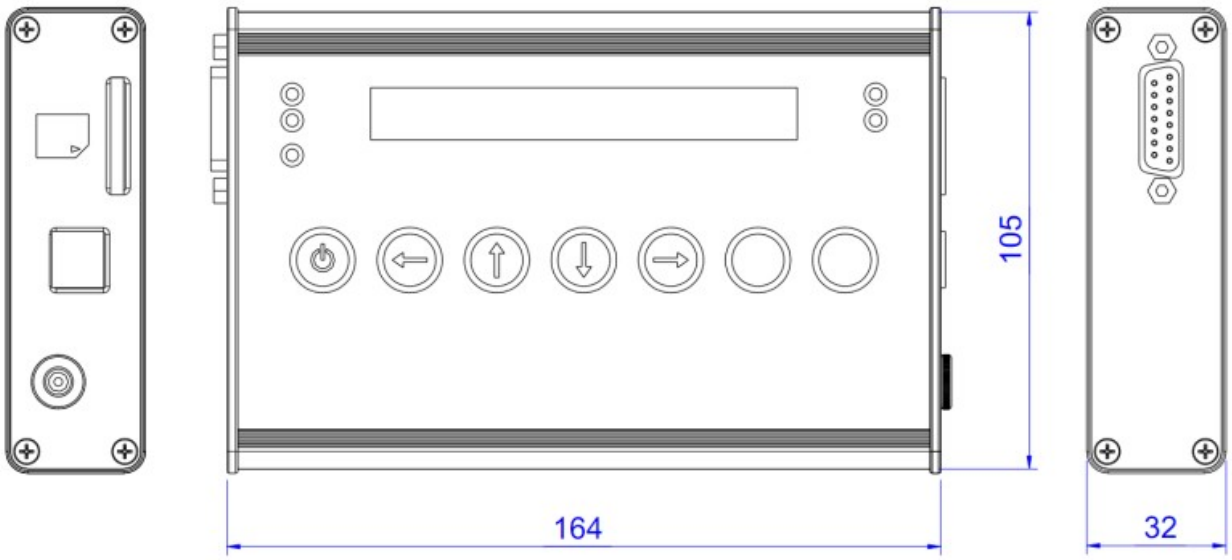
Stand: 21.04.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Dimensions	108 x 175 x 34	mm³
Housing	Aluminium	
Connection	Plug connector	
Number of channels	1-channel	
Interface	USB, SD-Card	

Input analog		Unit
Number of analog inputs	1	
Input sensitivity-steps	1.0 | 2.0 | 3.5	mV/V
Input resistance strain-gauge-half- /quarter-bridge	120 | 350 | 1000	Ohm
Input voltage from	0	V
Input voltage to	10	V
Input resistance-voltage	56	kOhm

Output analog		Unit
Number of analog outputs	1	
Voltage output from	-5	V
Voltage output to	5	V
Output resistance - voltage output	47	Ohm

Accuracy data		Unit
Accuracy class	0,05%	
Relative linearity error	0.02	%FS
Temperature effect on the zero point	0.2	%FS/10°C
Temperature effect on the measuring sensitivity	0.01	%RD/10°C
Resolution	24	Bit

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Measuring frequency		Unit
Data frequency from	0.3125	Hz
Data frequency to	3000	Hz
Limit frequency (analog)	1700	Hz

Supply		Unit
Supply voltage from	10	V
Supply voltage to	29	V
Strain gauge bridge supply	2.5 | 5	V

Interface		Unit
Type of the interface	USB	
Quantity of the interface	1	
Version of the interface	2.0 Fullspeed	

Zero Adjustment		Unit
Type	Digital | Software | regulation	
Tolerance	0.01	%
Time period	1	ms
Debouncing time	4	ms
Trigger level from	3.4	V
Trigger level to	29	V
Trigger edge	Pegel	

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Environmental Data		Unit
Rated temperature range from	0	°C
Rated temperature range to	50	°C
Operating temperature range from	-20	°C
Operating temperature range to	70	°C
Environmental protection	IP51/IP65	

Mounting

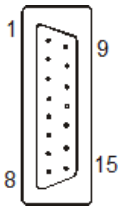
Pin connection

Sensor connection, Sub-D 15

1	Shield	
2	GNDA	ground analog input / analog output
7	Tara	zero set input / trigger-input
9	UE	analog input
10	UA	analog output
6	+Us	positive bridge supply
5	-Us	negative bridge supply (GND)
8	+UD	positive differential input
15	-UD	negative differential input
13	+UF	positive sensor cable
12	-UF	negative sensor cable
14	HB	selection half bridge
11	QB120 Ohm	completion resistor quarter bridge 120 Ohm
3	QB 350 Ohm	completion resistor quarter bridge

		350 Ohm
4	QB 1000 Ohm	completion resistor quarter bridge 1000 Ohm

Table 1: assignment Sub-D 15 socket



For the connection of half and quarter bridges pin 14 should be bridged with pin 15.
Quarter bridges are connected to pin 2, pin 8 and QB (3, 11 or 4) in the three-wire technology.

Connection plan for straingauge bridges

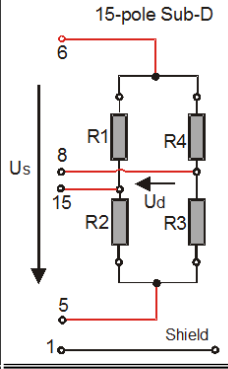
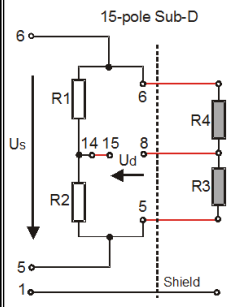
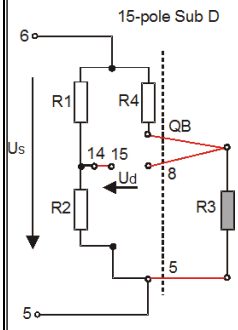
full bridge	half bridge	quarter bridge
		
no bridge	bridge between 14 and 15	bridge between 14 and 15

Table 2: Connection of full, half and quarter bridges on 15 pole Sub D socket

As standard accessories are provided:

- SD Memory-Card, Class 10 (recommended for records with 1000Hz)
- switching power supply 100..240V /18V 1,67A

- 15-pole Sub-D-mating plug connector
- USB-wire
- software-CD
- manual

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