# Measuring amplifier GSV-1A 010/250/3,5

Item number: 1279




## Highlights

- robust aluminum housing
- Protection class IP66

The measuring amplifier GSV-1A is ideal for assembly near the sensor, because the aluminum housing (protection class: IP66) is very compact and for the detection of static and dynamic signals from sensors with strain gauges.

The automatic zero adjustment store settings permanently in the nonvolatile memory also by voltage interruption.

The force sensor is connected to the terminals 1 to 4.

The power supply (11-30 volts) is connected to terminals 7 and 5 (ground).

For zero adjustment, the terminal 8 connected to the power supply or a control signal is set between 5 volts and 24 volts.

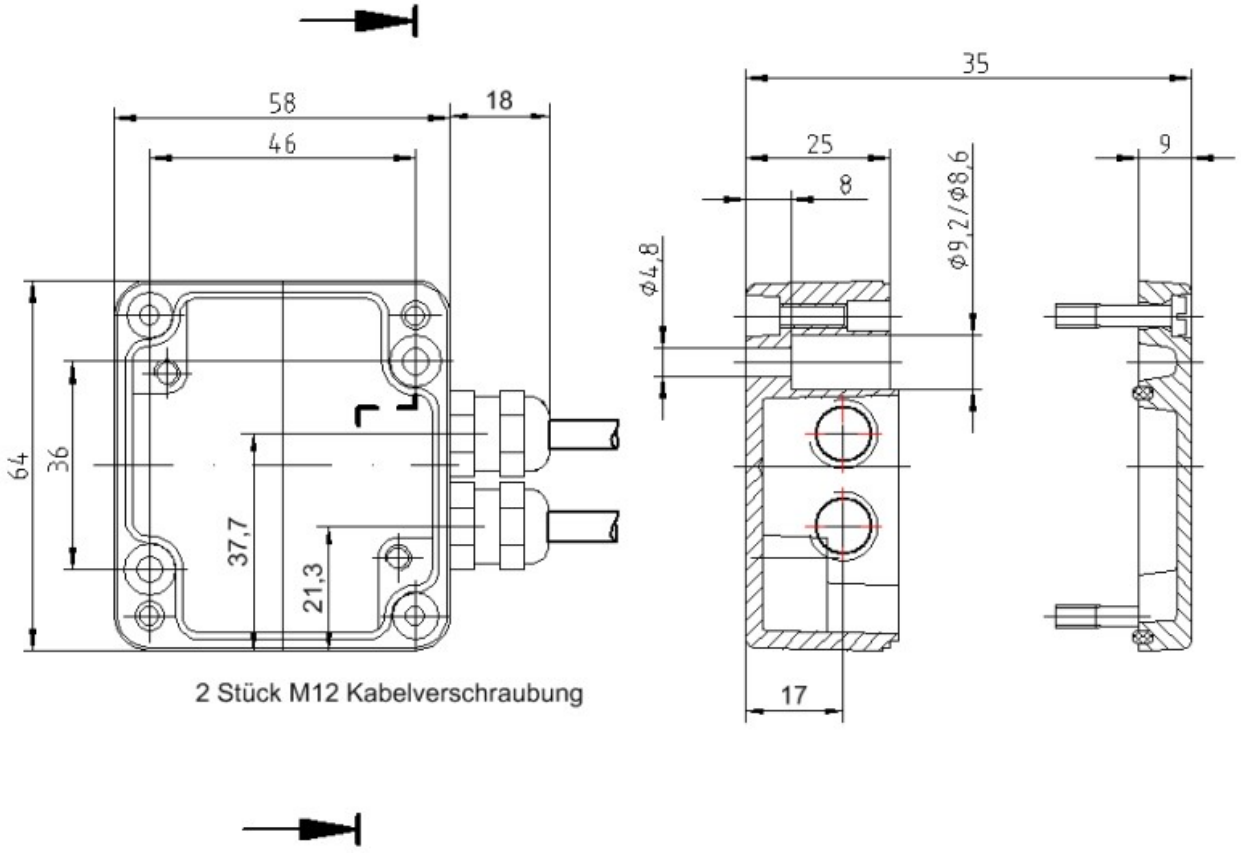
The amplification can be switched via plug-in jumpers 1-2-4-10-fold.

ME-Meßsysteme GmbH
Eduard-Maurer-Str. 9
DE-16761 Hennigsdorf

Tel: +49 (0)3302 8982 4 10
Mail: vertrieb@me-systeme.de
Web: www.me-systeme.de

Stand: 21.03.2026

## Technical Drawing



## Technical Data

| Basic Data | | Unit |
|---|---|---|
| Dimensions | 58 x 64 x 35 | mm³ |
| Housing | Aluminium | |
| Connection | Screw terminal | |
| Number of channels | 1-channel | |
| Functions | Tara, Range | |

| Input analog | | Unit |
|---|---|---|
| Input sensitivity-steps | 1.75 \| 0.35 \| 3.5 \| 0.875 | mV/V |

| Output analog | | Unit |
|---|---|---|
| Number of analog outputs | 1 | |
| Voltage output from | -10 | V |
| Voltage output to | 10 | V |
| Output resistance - voltage output | 47 | Ohm |

| 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 | 0.1 | %RD/10°C |

| Measuring frequency | | Unit |
|---|---|---|
| Limit frequency (analog) | 250 | Hz |

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| Supply | | Unit |
|---|---|---|
| Supply voltage from | 11 | V |
| Supply voltage to | 29 | V |
| Current consumption from | 55 | mA |
| Current consumption to | 75 | mA |
| Strain gauge bridge supply | 5 | V |

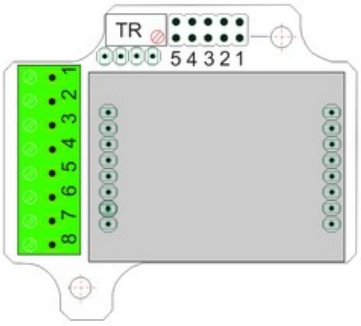
| Interface | | Unit |
|---|---|---|
| Type of the interface | Analog | |
| Quantity of the interface | 1 | |

| Zero Adjustment | | Unit |
|---|---|---|
| Type | Digital | |
| Tolerance | 5 | mV |
| Time period | 90 | ms |
| Debouncing time | 4 | ms |
| Trigger level from | 3.5 | V |
| Trigger level to | 30 | V |
| Trigger edge | falling | |

| Environmental Data | | Unit |
|---|---|---|
| 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 | IP66 | |

## Mounting

# Pin configuration




The GSV-1A measurement amplifier can also optionally be delivered with type 763 plug connectors.

| Terminal | | | Series 763 (M12) socket | | Series 763 (M12) pins | |
|---|---|---|---|---|---|---|
| 1 | -UD Negative differential input | | 4 | black | | |
| 2 | +UD Positive differential input | | 3 | blue | | |
| 3 | +US : Positive bridge excitation (5V) | | 1 | brown | | |
| 4 | -US : Negative bridge excitation (GND) | | 2 | white | | |
| 5 | GND: Ground | | | | 3+5 | blue+grey |
| 6 | +UA : Analogue output | | | | 2 | white |

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| | | | | | |
|---|---|---|---|---|---|
| 7 | +UB Voltage supply (12V or 24V) | | | 1 | brown |
| 8 | T: Control input zero adjustment | | | 4 | black |

## Adjustment of the input range

The input sensitivity can be adjusted by moving the jumper. The input sensitivity for position 1 is indicated in the type designation. In position 5, the amplification can be set in a continuously variable manner using the “TR” trimmer.

| Position | Amplification Factor | Input Range |
|---|---|---|
| 1 | 1 | 3.5 mV/V |
| 2 | 2 | 1.75 mV/V |
| 3 | 4 | 0.875 mV/V |
| 4 | 10 | 0.35 mV/V |
| 5 | 1...10 | 3.5 ... 0.35 mV/V |

For an amplification factor 1, the complete output signal is reached at a modulation of 100%.

For an amplification factor of 2, the complete output signal is already reached at a modulation of 50%.

Various versions are available, e.g. with voltage output +-5V, with voltage output +-10V, with current output 4...20mA, and with various input sensitivities +-2mV/V and +-3.5mV/V.