

## GSV-6K



### Description

The measurement amplifier GSV-6K includes a strain gauge input via a 5-pin M12 casing bushing and an analogue output via a 5-pin M12 housing connector.

The GSV-6K is used to convert the bridge signal from force, torque or strain sensors to an analogue output signal.

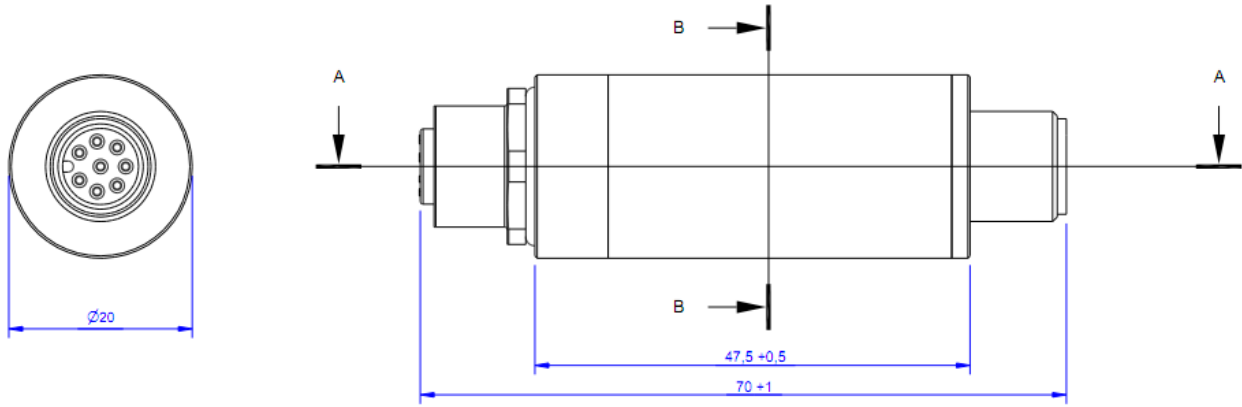
The electronic data sheet of the sensor can be read via a TEDS interface. The measurement amplifier scales the output signal to the end value of the set output signal using the TEDS interface.

The output signal can be set as a voltage output or current output.

The outputs 0...10V,  $\pm 10V$ , 0...5V,  $\pm 5V$ , 4...20mA, 0...20mA can be set using the "Tare" and "Scale" control cables.

Similarly, an offset or sampling frequency can also be set.

## Dimensions



## Technical Data

### Input analog

Number of analog inputs	6
Input sensitivity-stepsless f	0.1 ... 8 mV/V
Input resistance strain-gauge-full-/half-bridge	60 ... 20000 Ohm
Input voltage f	0 ... 3 V

### Output analog

Number of analog outputs	6
Output resistance - voltage	0.12 Ohm
Current output to	10 mA

### Measuring frequency

Data frequency f	10 ... 25000 Hz
Sampling frequency	50 kHz

### Supply

Supply voltage f	9 ... 29 V
Current consumption from	22 mA
Strain gauge bridge supply	3 V

### Interface

Type of the interface	teds
Quantity of the interface	1

### Temperature

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

### Basis Data

Connection	Connector
Number of channels	1-Kanal

### Precision

Accuracy class	0,1%
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

## Functions

The unit is factory-configured to the desired output signal and with the desired functions. The configuration can be modified using the "Tare" and "Scale" control cables.

## Terminal assignment

M12 plug connector with A-coding;

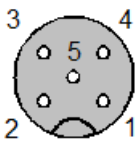


Figure 6: Contact configuration M12 socket

## 5-pin socket

Pin No.	Terminal assignment	ME (Type 1)	ME (Type 2)	Phoenix SAC-5P
1	+U <sub>S</sub> Positive bridge excitation	brown	red	brown
2	-U <sub>S</sub> Negative bridge excitation	white	black	white
3	+U <sub>D</sub> Positive differential input	green	green	blue
4	-U <sub>D</sub> Negative differential input	yellow	white	black
5	TEDS input	grey		grey

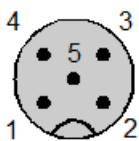





Figure 7: Contact configuration M12 plug

### 5-pin plug

Pin No.	Terminal assignment	ME (Type 1)	Phoenix SAC-5P
1	Voltage supply 12V / 24V DC	brown	brown
2	Analogue output 4...20mA / $\pm 10V$	white	white
3	Ground	green	blue
4	Tare (Control input for zero adjustment)	yellow	black
5	Scale (Control input for autoscale)	grey	grey

## accessories

Description	Description
 Configuration GSV-6	as a free service we offer the configuration for GSV-6K and GSV-6L, setting parameters are selectable
 Connector xp/f/M12/x	Sensor-/actuator cable; 4 / 5 pin;
 Connector xp/f/M12/x	Sensor-/actuator cable; 4 / 5 pin;