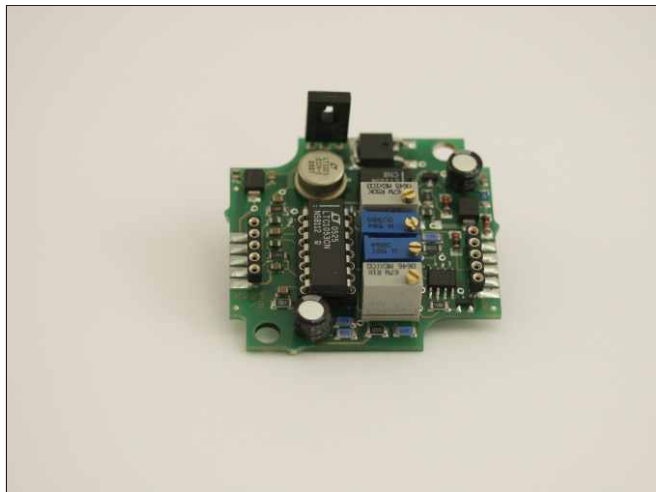


# measurement amplifier VMV-0025V2



## functional description

- measurement amplifier for strain gauge sensors
- modular, space-saving component in sealed aluminium-diecast box
- operating voltage in wide DC voltage range eligible
- execution for quasi-static processes
- output is executed optionally as a current source or voltage source
- temperature range 0...+60 °C



The application of the module amplifier allows bigger distances between measuring place and measuring processing. Are connectable all sensors which use strain gauges and be operated with a high-precision voltage. Factory-made the sensor is customised according to its sensitivity, at the same time the configuration of the analogous output is carried out as a current output or voltage output. A reverse-connect protection as well as a calibrating are integrated. The measurement amplifier is delivered precalibrated and can be fine-calibrated on site.

### employment:

For the operation of the sensor necessary high-precision DC voltage is gained from the disarrayed supply voltage DC. The rough-adjustment of the offset voltage of the sensor strap, the amplification, the zero shift of the amplifier as well as the calibration check takes place factory-made. For the fine adjustment on-site four potentiometers which are accessible after opening the housing cover exist.

The amplifier supplies a measuring signal of 0... +20 mA or-4... +10 V. The sensors (e.g. force transducers with strain gauges) are direct therefore in controls, controller, data logger among others hookable up.

## technical data

### amplifier:

operating voltage +Ub	9...16 V DC / 12...30 V DC according to version
operating temperature	0...+60 °C
input resistance	> 10 MOhm
current consumption	< 50 mA
output as current source	I <sub>out</sub> = 0...20 mA R <sub>i</sub> = (U <sub>b</sub> -5 V):20 mA (R <sub>load</sub> )
output as voltage source	U <sub>out</sub> = -4...+11 V R <sub>i</sub> = 1 kΩ
sensitivity ranges	>0,1 mV / V customised, according to execution
linearity	0,005 %
temperature coeff. for zero / amplification	20 ppm / K
common mode voltage	max. ±4,5 V
common mode rejection	> 115 dB
critical frequency (-3 dB)	10 Hz
possibilities for fine comparison	offset of the strap, calibration check CC, amplification, zero shift

## technical data

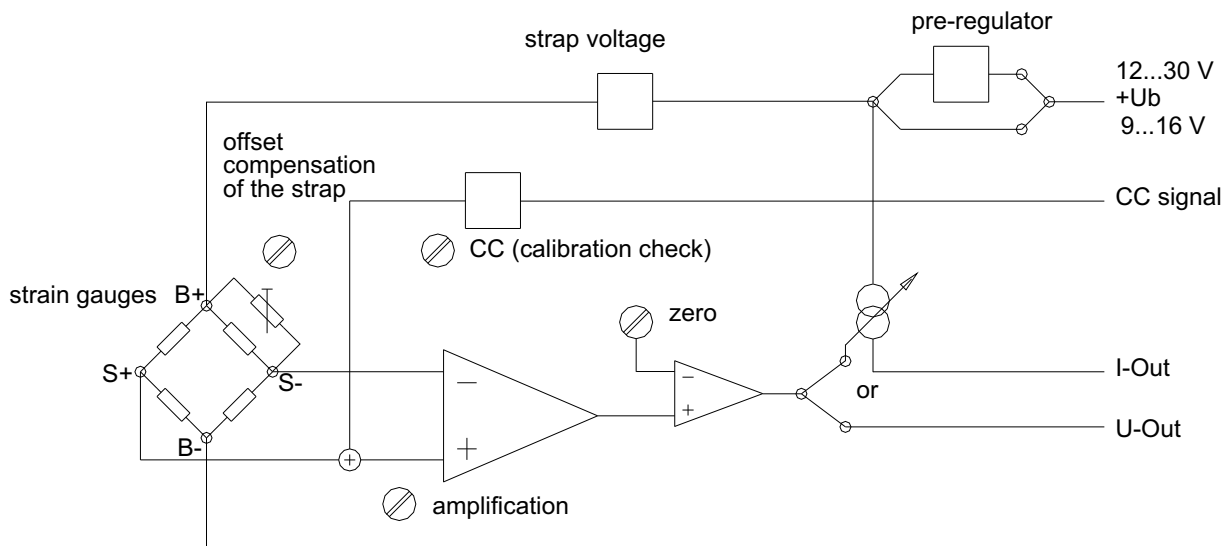
### data for connected sensor:

Us	5 V DC
temperature coeff. of Us	10 ppm / K
current consumption	< 45 mA
strap resistance	> 120 Ohm

### general:

connection	soldered connection
housing	aluminium-diecast box, IP 65
dimensions (l x w x h)	64 mm x 58 mm x 36 mm
weight	approx. 100 g

## connection of the measurement amplifier



amplifier in housing:

