HKM Messtechnik

Force measurement
Weighing technology
Sensor technology

Strain-Gauge Amplifier with Voltage Output | MV2.0 | Product information

Description

The analogue voltage-output measuring amplifier MV2.0 is intended for amplifying bridge output signals from sensors that employ strain gauges for measurement. It is suitable for both static and dynamic applications. There is a choice of several different signal variants, including for bi-directional operation. A connected sensor is supplied from a voltage source incorporated in the measuring amplifier.
For calibration, there are potentiometers for adjusting the zero setting and the amplification. The zero setting of the system consisting of a sensor and a measuring amplifier can be readjusted even after installation.
The measuring amplifier is supplied in a robust die-cast aluminium housing, which has two holes for simple mounting. Connection and output cables can be adapted to suit the customer's requirements.
In the encapsulated version, the internal connections are soldered and cables are provided for external connection. Optionally, screw terminals can be provided for connecting the customer's leads.

Features

- Single-channel version
- Voltage output in many variants
- Integral sensor supply
- Encapsulated version, IP67
- Die-cast aluminium housing
- Optional screw terminals (-> IP65)

Applications

- Amplifier for industrial strain gauges

Selection table

Supply voltage	Output, variant A			Output, variant B		
5 V	±2.5 V			0 - 2.5 V		
12 V	±2.5 V	±5 V	±10 V	0 - 2.5 V	0 - 5 V	0 - 10 V
24 V	±2.5 V	±5 V	±10 V	0 - 2.5 V	0 - 5 V	0 - 10 V

Technical Data

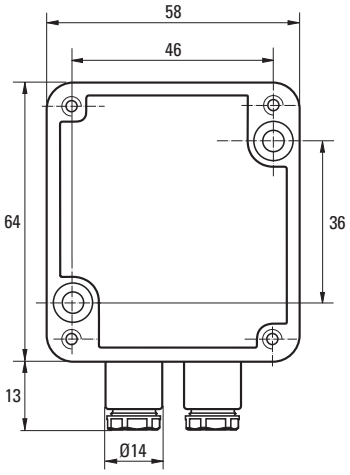
Input signal	2 mV / V (others on request)
Bridge excitation voltage	5 V
Bridge resistance	80-5000 Ω
Current draw / 350 Ω	ca. 25 mA
Cut-off frequency	200 Hz (others on request)
Linearity	<0.02 % f.s.
Nominal temperature range	-10 °C to +50 °C
Operating temperature range	-30 °C to +50 °C
Temperature coeff., amplification	<0.2 % f.s./ 10 K
Temperature coeff., zero-setting	<0.15 % f.s./ 10 K
Housing	aluminium die-casting
Dimensions	58 mm x 64 mm x 34 mm
Connections	soldered
Cable	to customer's requirements
Degree of protection	encapsulated, IP 67

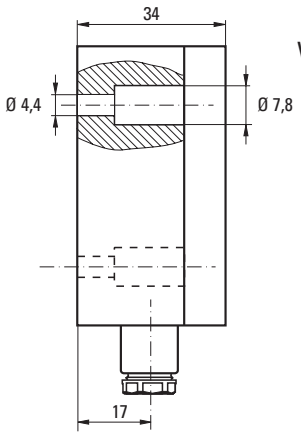
Options

Screw terminals, 2 x 4 connections
(-> degree of protection IP 65)

Dimensions

Open, without cover

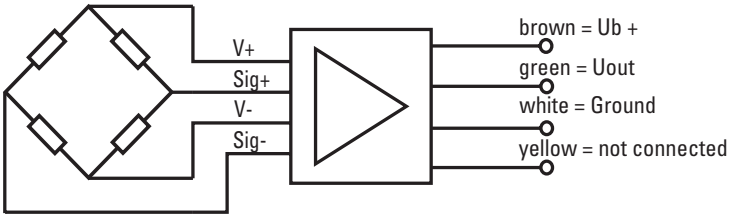




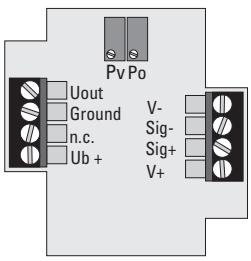
With cover

Dimensions in mm

Terminal assignment



Pv: Amplification potentiometer
Po: Zero-setting potentiometer



Sensor side

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