

Measuring Amplifier MV125

Scope of Supply

Amplifier in cast aluminum enclosure

Standard (Option U):

2 voltage outputs (direct / filtered)

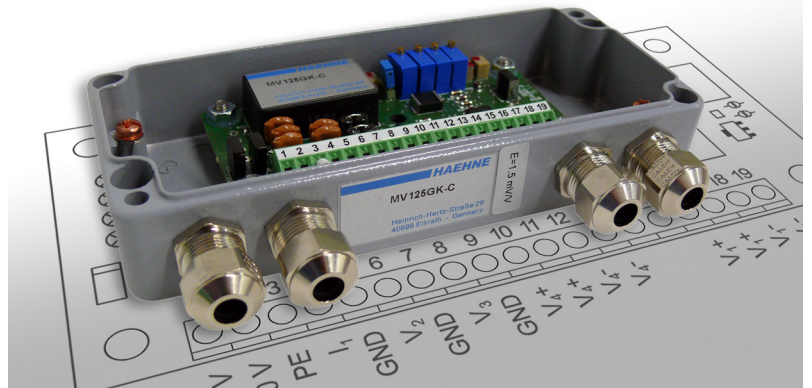
Variants

C: 1 current output 4...20 mA,
2 voltage outputs (direct / filtered)

N: 1 current output 0...20 mA,
2 voltage outputs (direct / filtered)

Additional Options

E: Enlarged excitation supply 160 mA



Special Features

- Direct signal amplification close to the sensor due to field housing
- Integrated excitation voltage
- 4 V DC power supply
- Power supply and signal outputs galvanically isolated
- Completely potted version for rotating machine component are also available

The measuring amplifiers MV125 are preferably used in cases when the analog measuring signals of the sensors must be amplified close to their location on machines and equipment in rough environments. The standardised output signals of the amplifier can then be transmitted over long distances or via commutators. A 24 V DC power supply only is needed to operate the amplifier. Due to its compact structural shape and its competitive price, the MV125 is an interesting alternative to more complex amplifiers. All components of the multi-stage amplifier MV125, as well as the voltage regulator for the strain gauge excitation voltage are on a PCB measuring 95x46 mm.

Two zero adjust potentiometer are available for eliminating offsets (e.g. the roll weight of web tension sensors). The desired gain can be adjusted with two potentiometer (coarse and fine).

Two voltage outputs with different types of filters are available.

The current output can be connected to either one of these outputs (option C and N).

The connection of the auxiliary power supply is reverse polarity protected.


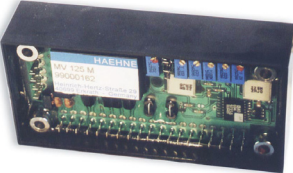
Ordering example

MV125GK-C

Type

Variants / Options

Technical Data		
Strain gauge excitation supply	Voltage (V_4):	10 V
	Current max.:	60 mA
	Option E	160 mA
Zero adjust compensation voltage (in relation to voltage input)		-25...0...+25 mV
Amplification	Adjustment range	400...3200 V/V
	Factory adjustment at 1,5 mV/V	667 V/V
	at 1 mV/V	1000 V/V
	at 0,75 mV/V	1333 V/V
Signal output	Voltage (V_2, V_3)	-10...0...+10 V
	min. load resistance	5 k Ω
	Signal rising time (10...90 %)	V_2 direct: 5 ms V_3 filtered: 2 s
	Voltage (I_1) Option C Option N	4...20 mA 0...20 mA
	Max. load resistance	600 Ω
Auxiliary power	Voltage	24 V DC, ± 10 %
	Current consumption (at 24 V)	approx. 90 mA
Standard enclosure protection	GM and GK Version	IP65
Temperature range		0...60° C
Terminal cross-section		AWG 26-16

Design		
MV125GK	Amplifier (terminal connection) in cast aluminium enclosure 150 × 64 × 36 mm (l × w × h) with four screwed joints, M12 x 1,5	
MV125M	Potted amplifier module 50 x 100 x 25 mm (l × w × h)	
MV125GM	Potted amplifier module (soldering connection) in cast aluminium enclosure 150 × 64 × 36 mm (l × w × h) with two screwed joints, M12 x 1,5	