HAEHNE

Product Description

Measuring Amplifier AME2

Special Features

- ❒ Rise time of the filter can be infinitely adjusted
- ❒ Reverse polarity isolated
- ❒ Plug-in terminal blocks
- ❒ All adjustments front panel accessible
- ❒ Power supply and signal outputs galvanically isolated

Scope of Supply

- **Amplifier in DIN Rail Mount Enclosure**
- **Standard** (Option U):
  2 voltage outputs (direct / filtered),

Versions

- **Option C:** 1 current output 4 ... 20 mA, direct + option U
- **Option N:** 1 current output 0 ... 20 mA, direct + option U
- **Option CD:** 1 current output 4 ... 20 mA, filtered + option U
- **Option ND:** 1 current output 0 ... 20 mA, filtered + option U

Additional Accessories

- **Option E:** Enlarged excitation supply 160 mA
- **Option F** (potentially explosive atmospheres): Use with safety barriers

Application

The **amplifier AME2** has been designed for amplifying small sensor signals of full bridge strain gauges to standardized voltage and current levels.

The narrow design of the **AME2** amplifier is exceptionally well suited for DIN rail mounting in electrical cabinets.

The favourable price / performance ratio makes the unit a good choice for cost sensitive applications.

AME2 has two pots with 22 turns each (coarse and fine) are available for the zero adjust and gain adjustment.

In addition to the direct voltage output with fast reaction times a filtered output is available, e.g. for display purposes. The rise time of the filter can be infinitely adjusted between 50 milliseconds and two seconds with the potentiometer accessible on the front panel.

With the option C and N a current output is available which is associated with the direct fast voltage output. In case of the options CD and ND the current output is adjustable via the filtered voltage output.

The connection of the power supply is reverse polarity protected. The outputs are potential isolated from the auxiliary power. Plug-in terminal blocks enable pre-wiring and simple trouble shooting.

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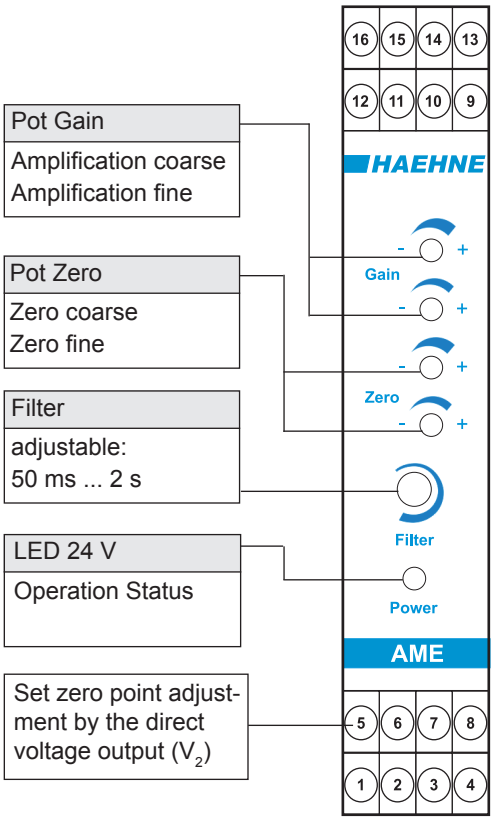
Technical Data		
Strain gauge excitation supply	Voltage (V_4):	10 V
	Current max.:	60 mA
	Option E / Option F:	160 mA
Zero adjust compensation voltage (in relation to voltage input)		-25…0…+25 mV
Amplification	Adjustment range	400…3200 V/V
	Factory adjustment	667 V/V
Signal output	Voltage (V_2, V_3)	-10…0…+10 V
	min. load resistance	5 kΩ
	Signal rise time (10…90 %)	V_2 direct: < 2 ms V_3 : 50 ms - 2 s (infinitely steppless with pot)
	Voltage (I_1) Option C Option N	 4...20 mA 0...20 mA
	Max. load resistance	600 Ω
Auxiliary power	Voltage (V_5)	24 V DC, ± 4 V
	Typical current requirements with standard wiring	approx. 75 mA
Linearity deviation		≤ 0,1 %
Temperature drift		25 ppm / °C
Temperature range		0…60° C / 32°… 140° F
Terminal cross-section		AWG 24-12
Standard enclosure protection		IP20



Terminal diagram		
Terminal	Assignment	
1	+24 V	V_5
2	0 V	
3	PE	
4	GND	Amplifier outputs
5	V_2	
6	GND	
7	V_3	
8	I_1	
9	V_4+	Sensor A
10	V_4-	
11	V_1+	
12	V_1-	
13	V_4+	Sensor B
14	V_4-	
15	V_1+	
16	V_1-	

V_1	Output signal of full bridge strain gauge
V_2	Direct voltage output
V_3	Filtered voltage output
V_4	Excitation voltage to the full bridge strain gauge in the sensors
V_5	Supply voltage 24 V DC
I_1	Current output (option C and N)

Dimensions

- DIN rail mount enclosure 99 × 22,5 × 114,5 mm (L × W × H)
- plug-in terminal blocks

Ordering Data

AME2-CD

Options
Type

Ordering Data Option F:
Indicate the total resistance from measuring chain for option F (e. g. 350 Ohm):
AME2-UF350

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