

Digital Measuring Amplifier DMA2

Scope of Supply

Amplifier in DIN Rail Mount enclosure

Standard (option U):

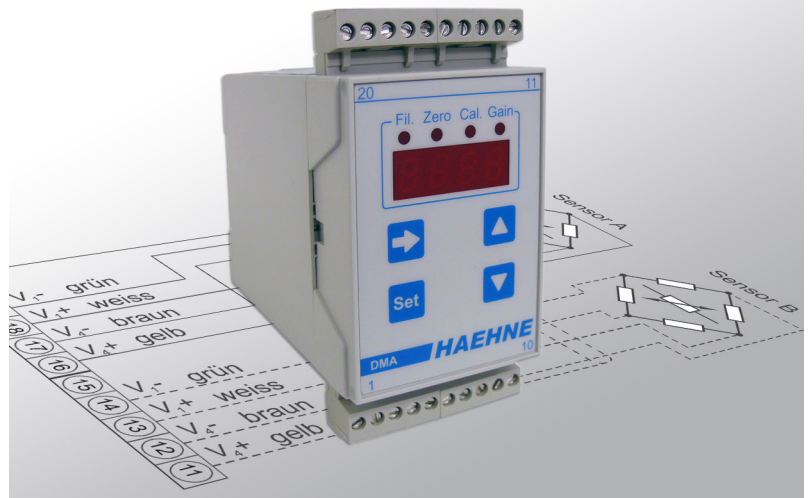
2 voltage outputs (direct / filtered),
Strain gauge excitation supply 10 V

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

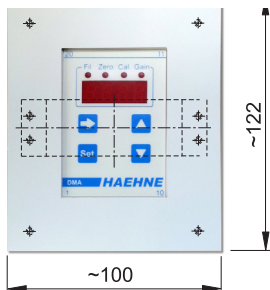
- E: Enlarged excitation supply 160 mA
- F: (Potentially explosive atmospheres):
Use with safety barriers
- J: Strain gauge supply voltage 5 V
- T: Front panel incl. steel bracket
- G2: Steel housing with door
and viewing window



Special Features

- Integrated display of actual force and parameters
- Simple operation with control panel buttons
- Calibration and zero adjust by menu prompts
- 2 voltage outputs (direct / filtered)
- Percent or actual value display (3½ digits)
- Peak value storage
- Power supply and signal outputs galvanically isolated

Option T



Option G2

height 300 mm
width 200 mm
depth 120 mm



Ordering example

DMA2-U

Type

Variants/Options

Ordering example option F:

Indicate the total resistance from
measuring chain for option F
(e. g. 350 Ohm):

DMA2-UF350

The amplifier **DMA** is designed for full bridge load cells as well as special web tension sensors.

In a cabinet it can be DIN rail mounted or directly to a wall.

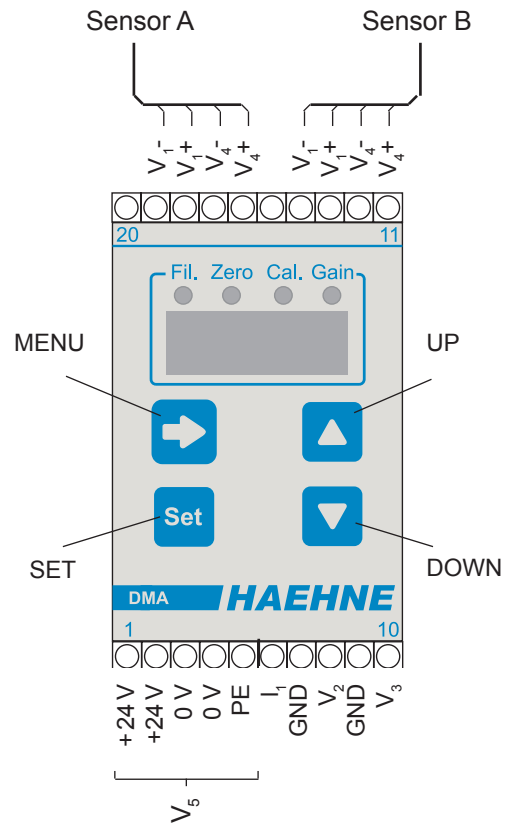
This space saving SMD components design combines the advantages of analog and digital electronics:

- | | |
|---------|--|
| Analog | Fast signal processing without AD converter steps |
| Digital | The microprocessor automatically controls zero adjust and calculates the calibration value |

The **DMA** offers especially OEM's substantial simplification of commissioning and service:

- Pre-setting of amplification
(to be selected in the MENU)
- Plug-in terminal blocks designed for pre-wiring
- Zero adjust and calibration by push buttons
- Display of actual force
(as percent of nominal force or actual value)

Technical Data		
Strain gauge excitation supply		
Voltage (V_4)		10 V
Option J		5 V
Max. current		60 mA
Option E / Option F		160 mA
Zero adjustment compensation voltage (relative to the voltage inputs)		
		-25...0...+25 mV
Total amplification		
Adjustment range		400...2800 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	
Current (I_1)		
Option C		4...20 mA
Option N		0...20 mA
Max. load resistance		600 Ω
Supply voltage*		
Voltage		24 V DC, ± 4 V
Current consumption (Standard)		approx. 90 mA
Enclosure protection		
		IP20
Temperature range		
		0...60° C
Terminal cross-section		
		AWG 22-12
* The auxiliary power V_5 must be grounded. When using the power supply V_5 a maximum current of 10 Amps should not be exceeded.		



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)

Enclosure

DIN rail mount enclosure with LED display (3½ -digits)
 Dimensions incl. plug-in terminal blocks: 55× 105 × 110 mm
 Four push buttons: MENU UP DOWN SET

