

Digital Measuring Amplifier DMA3

Scope of Supply

Amplifier in DIN Rail Mount enclosure

Standard (option U):

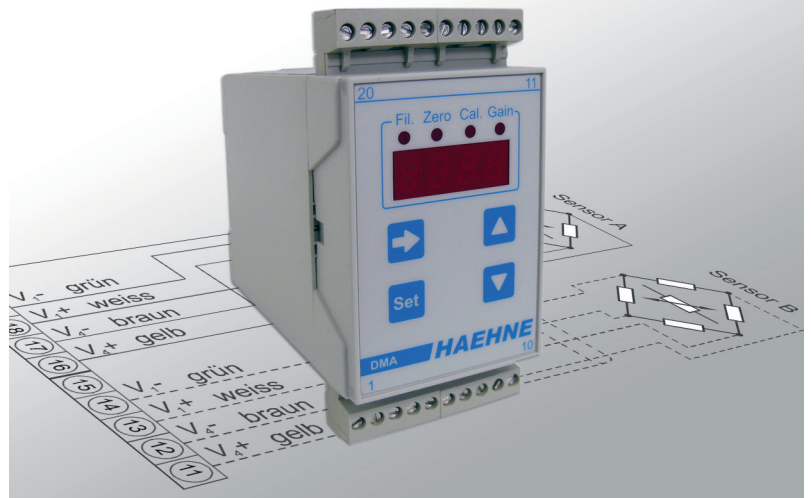
2 voltage outputs (direct / filtered),
Strain gauge excitation supply 10 V

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

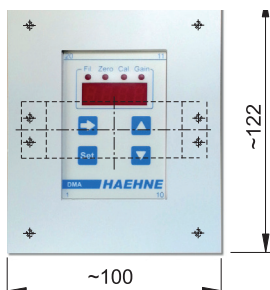
- F: (Potentially explosive atmospheres):
Use with safety barriers
- J: Strain gauge supply voltage 5 V
- P: In combination with preamplifier PAM2
- T: Front panel incl. steel bracket
- G2: Steel housing with door
and viewing window



Special Features

- 24 bit Σ - Δ -AD converter for highest precision
- Very fast cycle time for time-critical applications (0,5 ms)
- Simple operation with control panel buttons
- Calibration and zero adjust by menu prompts
- Integrated display of actual force and parameters
- Percent or actual value display (3½ digits)
- Peak value storage
- 2 analog outputs with 16 bit resolution
- Power supply and signal outputs galvanically isolated

Option T



Option G2

height 300 mm
width 250 mm
depth 155 mm



Ordering example

DMA3-U

Type

Variants/Options

Ordering example option F:

Indicate the total resistance from
measuring chain for option F
(e. g. 1000 Ohm):

DMA3-UF1000

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

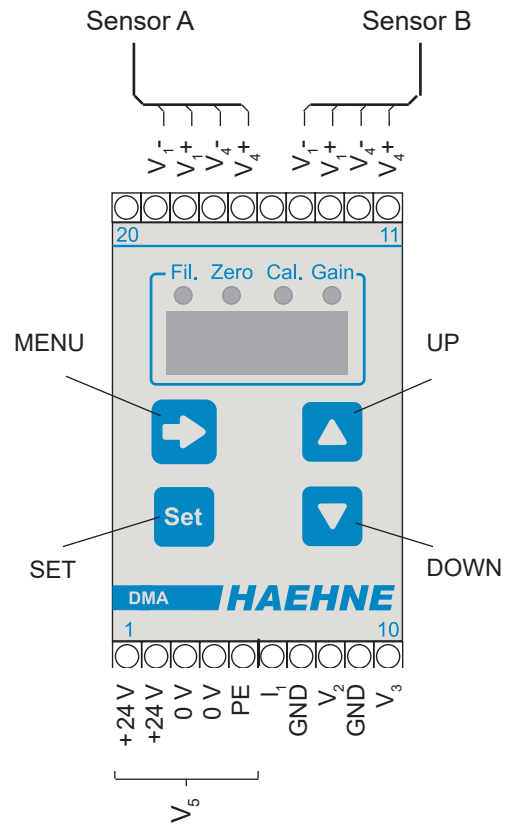
In a cabinet it can be DIN rail mounted or directly to a wall.

Front panel mounting is available as an option.

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 adjustment 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	160 mA
Zero adjustment compensation voltage (relative to the voltage inputs)		
	-25...0...+25 mV	
Total amplification		
	Adjustment range	250...4000 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: 1 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, 9-36 V
	Current consumption (Standard)	approx. 90 mA
Enclosure protection		IP20
Temperature range		0...60° C
Terminal cross-section		AWG 22-12
* The auxiliary power must be grounded. When using the power supply a maximum current of 2 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

