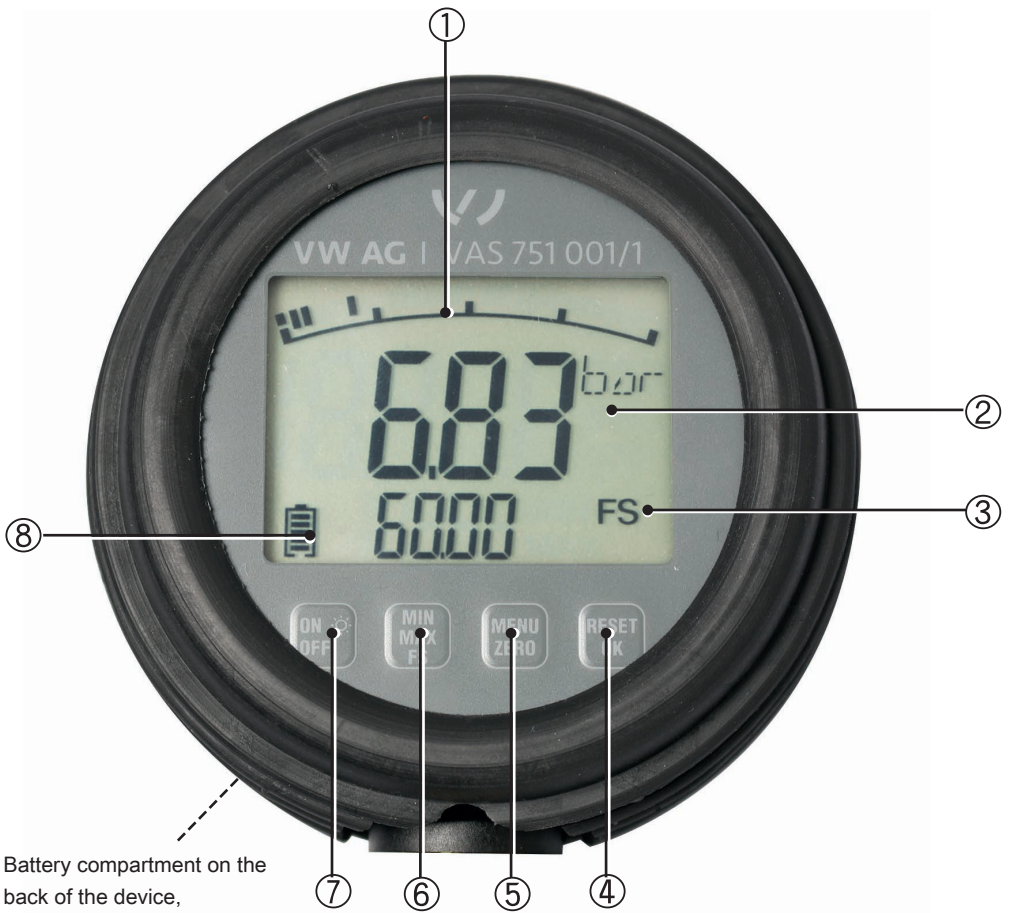


Digital pressure gauge

VAS 751 001/1





Battery compartment on the back of the device, see 5. Changing the battery.

①	Bargraph	The bar graph graphically depicts the maximum measuring span. The stored MAX value is displayed as a static, individual bar (= drag pointer function). The display is updated at an interval of 10 milliseconds. (100 measurements / second)
②	Measurement value and pressure unit	Displays the current pressure. This display is updated at an interval of 300 milliseconds. (3 displays / second) Displays the unit set.
③	Display min/max/FS	Displays the display value selected: MIN, MAX or full scale (FS).
④	RESET / OK button	Deleting the MIN and MAX measured data storage. Confirmation of the MENU functions
⑤	MENU/ZERO button	Short key press: menu / long key press: zero adjustment
⑥	MIN/MAX/FS button	Selection of the display value: MIN, MAX or full scale (FS) Minimum value / Maximum value: Pressure peak / Display of the maximum measuring span (e.g. 60.00 bar)
⑦	ON/OFF button	Switching the device on/off Press 3 seconds. Background lighting on (switched on for 20 seconds)
⑧	Battery symbol	Displays the battery status (fully charged = 5 segments)

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1. Safety provisions



- Safe working with the device is only possible if you read the operating instructions and safety information thoroughly and strictly observe the directions that they contain. Keep the operating instructions for later reference or pass them on to possible new owners.

- Before each use of the measurement device, please check the housing for visible damage. Should damage be visible, the device must not be used.

- Do not subject the device to any extreme temperatures, direct sunlight, extreme humidity or wet.

- No technical modifications to the unit may be made.

- The device may only be cleaned with a moist cloth. Do not use any abrasive cleaners or cleaning agents containing solvents.

- Furthermore, this measuring device may not be used if the ambient conditions (temperature, humidity ...) are outside the limits stated in the specifications.

- The measuring device may not be used in an explosive atmosphere.

- Failure to comply with these safety notes may result in damage to the unit and injuries to the operator.

- The electrical connection may only be made using the approved connection cable to the measurement technology box VAS 6356, because the digital pressure gauge can be destroyed otherwise.

- Exceeding the overload pressure can result in malfunctions and even in the destruction of the digital pressure gauge. Burst pressures refer to data without additional adapters installed.



2. Intended use

The **VAS 751 001/1** is a digital pressure gauge with MIN/MAX display and accuracy class 0.5 FSO. The MIN/MAX memory is permanently updated and overwritten. The sampling rate is 10 milliseconds (100 measurement values/second) for measuring dynamic pressure peaks.

3. Initial operation



IMPORTANT!

**The batteries are included in delivery and are not in the device.
You must insert the batteries before use, see point 5.**

- Switch on the device after inserting the batteries.
- The measuring device carries out a self-test.
- After completion of the self-test, the digital pressure gauge is ready for operation.

4. Battery disposal

We have the duty to draw your attention to the following:

This product uses batteries. As a consumer, you are legally required to return used batteries to the according collection points in order to avoid batteries entering the household waste cycle!

Batteries contain chemicals which can damage humans and the environment if released.

You can, for example, return used batteries to municipal collection points or to the trade, free of charge. The symbol illustrated on the battery has the following meaning:







Battery must not be put in the household waste.

5. Battery display and battery replacement

- The battery capacity is shown permanently with the battery symbol.
 - When the battery is empty, the device goes off and "BATT Low" is shown on the display. The batteries must be replaced.
1. Switch the device off and push the rubber cap towards the rear over the housing.
 2. Open the rear side of the device: Loosen and remove the 3 screws (hexagon socket 2.5mm), lift the cover off.
 3. Replace the batteries. Pay attention to the polarity! Batteries 2 x 1.5 V (LR6 - AA).
 4. Restore the original state.



6. Functions and buttons

Button	Meaning	Function
	On/Off Lighting	Short key press: Switch the device on/off. Long key press: background lighting on (switched on for 20 seconds).
	Minimum Maximum Full scale	Selection of the display value: MIN, MAX or FS (minimum value, maximum value, full scale). Display of the maximum measuring span (e.g. 60.00 bar).
	Menu Zero point	The function menu is activated with a short press. A zero point adjustment is carried out with a long press.
	Delete Confirm	Deleting the MIN and MAX measured data storage. Confirmation of the MENU functions.

7. Menu functions

The following settings are made using the MENU function

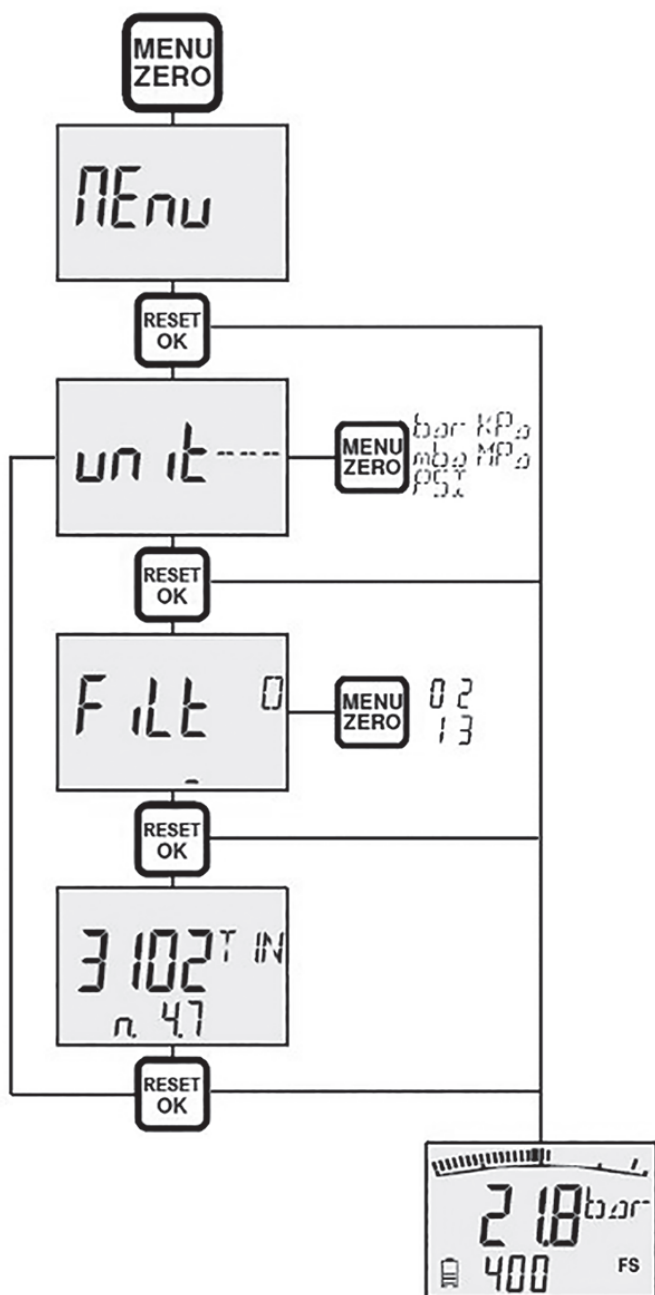
- Setting the measurement unit (bar, mbar, PSI, kPa, MPa)
- Setting the filter function
- Press the "MENU" button to adjust the parameters and the "OK" button to save the respective parameter. Will then jump to the next parameter.
- Keep the "OK" button pressed (for 3 seconds) to exit from the function menu.

If the user is in the function menu and does not activate any action for 20 seconds, he also exits from the function menu and all parameters set are saved.

Overflow

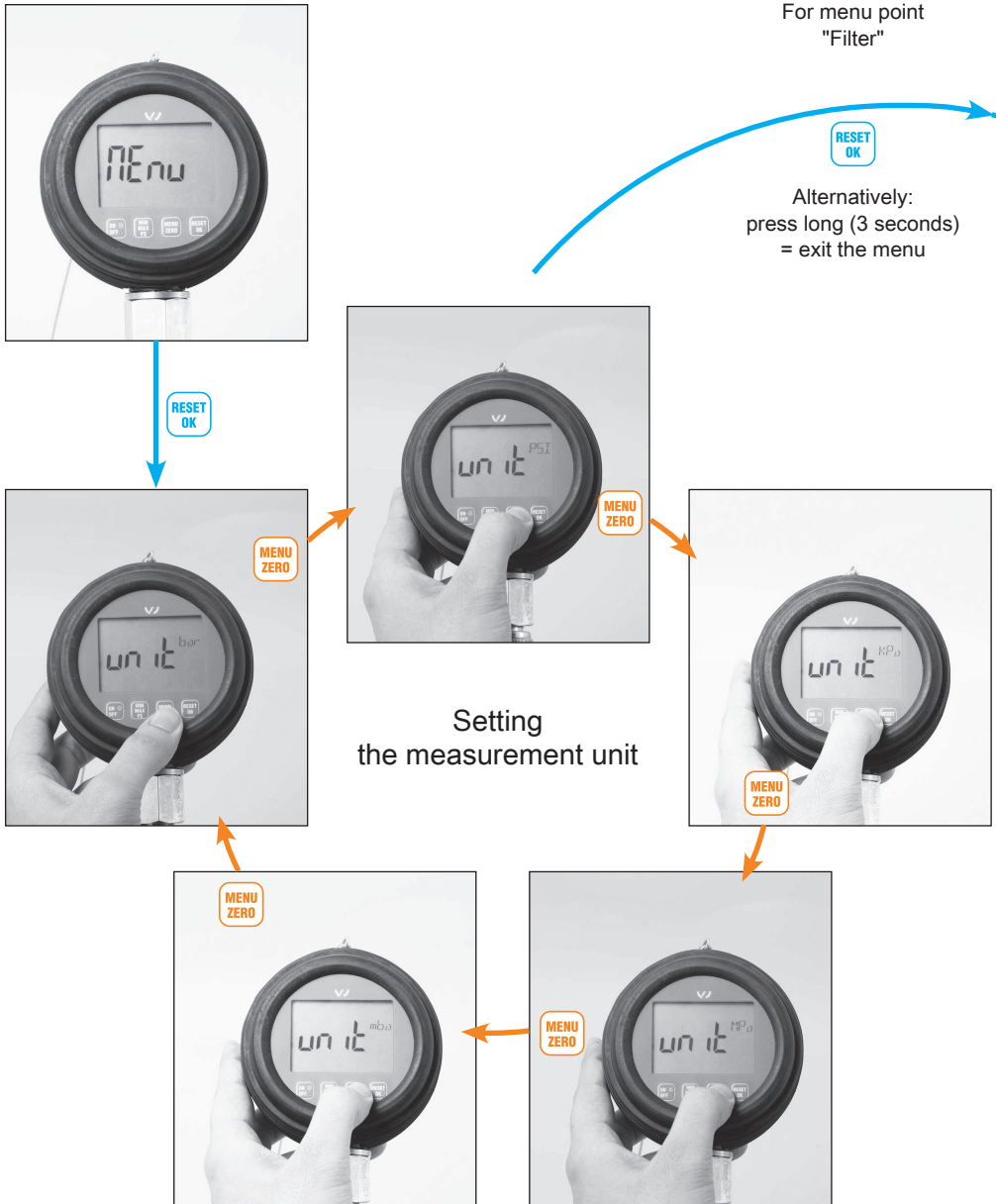
If the device displays "OFL" (overflow), this means that the existing pressure is too high.

The device switches off automatically after 5 minutes if there is a maximum pressure change of 2% of the respective end value.



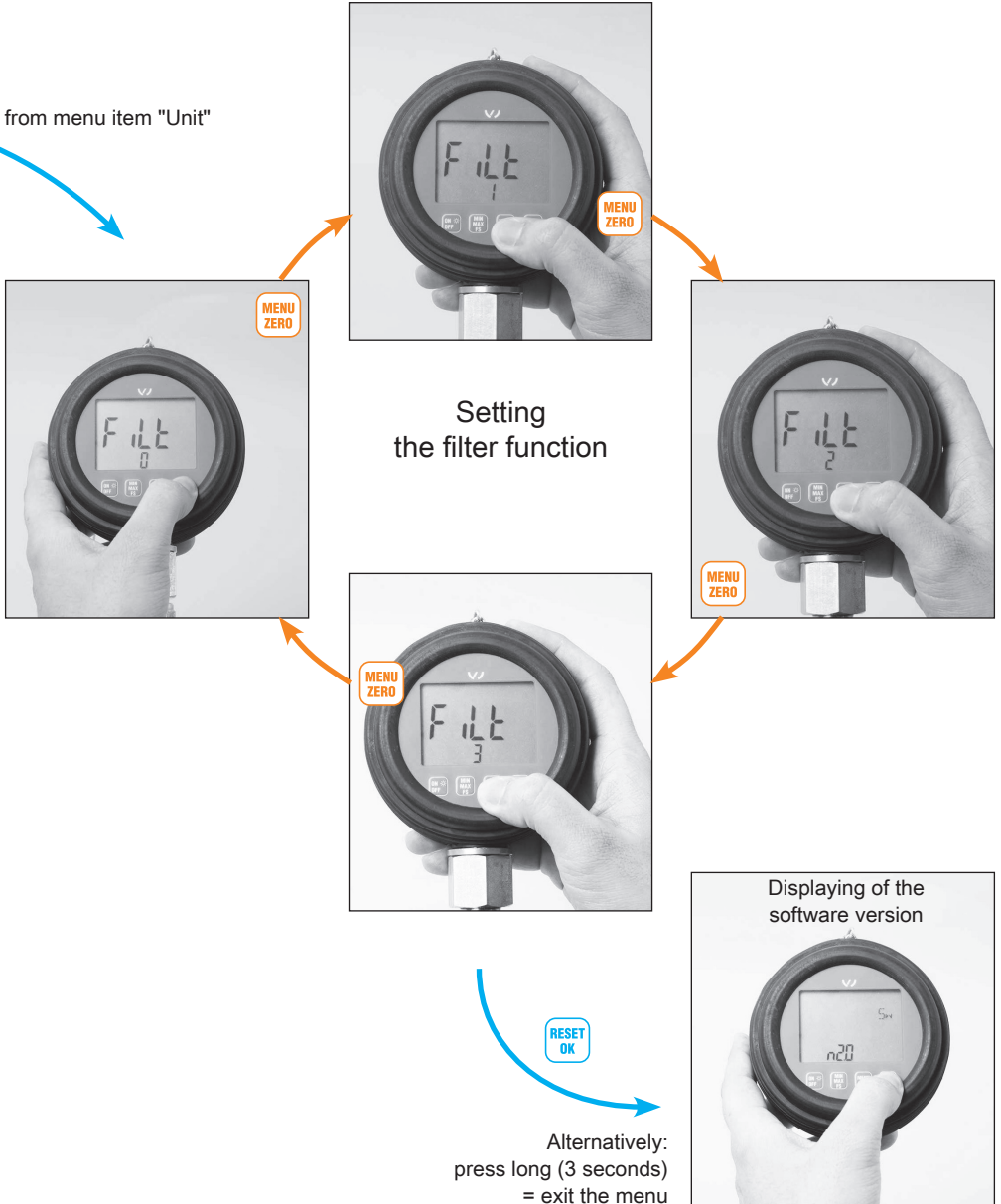
8. Setting the measurement unit

Use the **MENU ZERO** button to switch between the following measurement units:
bar, PSI, kPa, MPa, mbar



9. Setting the filter function

Use the **MENU ZERO** button to switch between the following filter functions:
0 = no attenuation, 1 = weak attenuation, 2 = medium attenuation, 3 = strong attenuation
The filter function serves to attenuate the measurement value display.



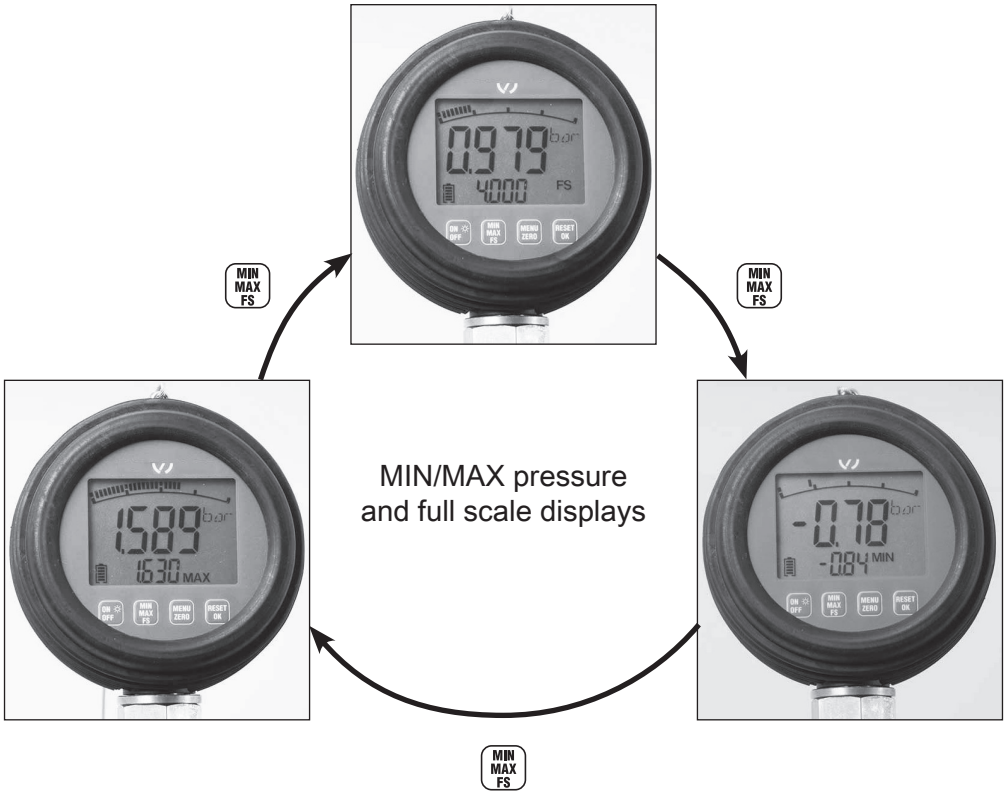
10. Displaying the MIN/MAX pressure

Use the  button to access the following values:

MIN (lowest measured pressure)

MAX (highest measured pressure)

FS (full scale = maximum measuring span).



11. Technical data, specifications

Pressure connection	G1/2" EN837
Measuring element	Piezo resistive
Measurement range	0.00 bar ... 60.00 bar
Resolution	0.01 bar
Measurement precision display Absolute and relative	0.5 % FS
Overload pressure	120 bar
Bursting pressure	500 bar
Measurement precision	0,5 % FS @ 0 °C...+50 °C
Operating temperature	-10...+50 °C
Fluid temperature	-20...+80 °C
Storage temperature	-20...+60 °C
Rel. humidity	< 85 % without condensation
Permitted degree of contamination of the environment	1
Altitude	to 2000 m
Precision 4...20 mA output	0.5 % FS
Analog output temperature error	≤ 0.4 % FS/10 K
Permissible load	50...400 Ohm
Coding resistance	9.76 kOhm
Display	LCD, 4-digit
Digit height of current measurement value	16 mm
Current consumption	max. 40 mA
Batteries	2 x 1.5 VDC LR6-AA
Battery life	up to 1500 hours
Wetted parts - Pressure connection - Membrane	Stainless steel 1.4301 Stainless steel 1.4548
External power supply	10.8 VDC...16.5 VDC
Weight	approx. 450 g
Dimensions L x W x H	155 x 100 x 50 mm

12. Maintenance and storage

Only clean the device with a dry, soft cloth. Be careful when cleaning in order to avoid scratching. In case of heavy soiling, the cleaning cloth can be moistened slightly with water. No moisture is allowed to ingress into the inside of the product. Do not use any cleaning agents or chemicals as this may damage the material.

Store your product in a dry, dust-protected environment. Avoid places with higher temperatures and moisture or places which can become wet, also for maintenance.

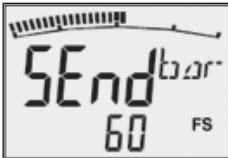
Repairs must be carried out exclusively by the manufacturer.

Keep the original packaging to avoid damage during transportation.

13. Operation as a pressure sensor on the measurement technology box VAS 6356

If the digital pressure gauge is connected to measurement technology box VAS 6356, "Send" is shown on the display and the analog current output is activated. All buttons except the lighting function are deactivated in this operating mode.

The filter function described in point 9 is not yet active and is adjusted on the VAS tester via the software. The current actual value display is switched off and the following display appears:



The VAS 751 001/1 pressure sensor is connected to the VAS tester via the analog output with the VAS 5051/66 connection cable.

Analog output:

The analog signal is transmitted with a sampling of 1 msec. The analog output is not muted. Muting of the display on the VAS tester is adjusted via software.

Pin assignment:

1	Coding resistance no. 1
2	Coding resistance no. 2
3	VDC
4	GND
5	4...20 mA

Subject to technical modifications.

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