

FR - Notice de fonctionnement
GB - User's manual
DE - Bedienungsanleitung
IT - Manuale d'uso
ES - Manual de instrucciones

C.A 852



Manomètre Numérique
Digital Pressure Gauge
Digitalen Druckmessers
Manometro Numerico
Manómetro digital

For best results from your instrument:

- **read** these operating instructions carefully,
- **comply** with the precautions for use.



WARNING, risk of **DANGER**! The operator must refer to these instructions whenever this danger symbol appears.



WARNING, risk of electric shock. The voltage applied to parts marked with this symbol may be hazardous.



Equipment protected by double insulation



Application or withdrawal authorized on conductors carrying dangerous voltages. Type B current sensor as per IEC 61010-2-032.



Battery.



The CE marking indicates conformity with European directives, in particular LVD and EMC.



The rubbish bin with a line through it indicates that, in the European Union, the product must undergo selective disposal in compliance with Directive WEEE 2002/96/EC.

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GUARANTEE

Our guarantee is applicable, unless otherwise stated, for twelve months following the date of supply of the equipment (extract from our General Sales Conditions, available on request).

1. PRESENTATION

The CA 852 pressure gauge is ideal for measuring pressure levels in air-conditioning installations, medical equipment and pneumatic control systems.

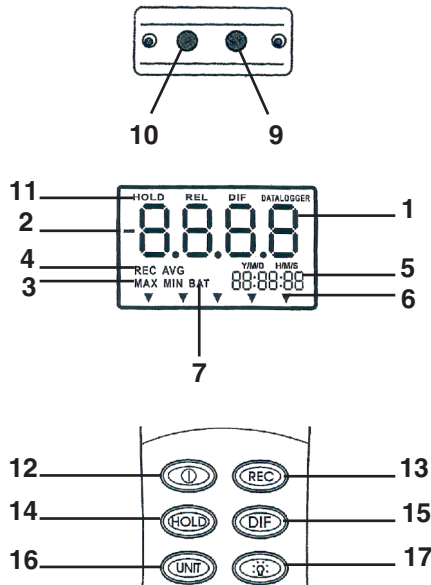
It measures relative pressures – pressure measured in psi in relation to atmospheric pressure – and differential pressures – difference between two pressures.

5 measurement units are available for selection: psi, bar, inH_2O , mmH_2O , mbar.

2. PRECAUTIONS FOR USE

- The pressure gauge should only be used by people qualified to work on pressurized circuits. The manufacturer and its distributors disclaim any responsibility for damage resulting from improper unqualified use of the instrument. Refer to the general terms of sale.
- The battery compartment must be closed before using the pressure gauge.
- Ensure that no dust or foreign matter penetrates inside the pressure gauge.
- To avoid damage due to overpressure, comply with the measuring range of the pressure gauge.
- To prevent corrosion of the pressure sensor, the pressure gauge must not be used with corrosive gases.
- To prevent a sudden pressure drop in a pressurized circuit, close valves to isolate the portion of the circuit where the pressure gauge is to be mounted or removed and slowly release the pressure before attempting to open this portion of the circuit.

3. DESCRIPTION OF THE INSTRUMENT



1. Main screen indicating the pressure measurement in the unit selected
2. " - " indicates a negative pressure
3. maximum or minimum pressure recorded
4. Indicates that the monitoring mode has started
5. Secondary screen indicating the time since the start of monitoring mode
6. Indicates the pressure unit selected
7. Low battery indicator
8. Indicates that differential pressure mode has been activated
9. Positive input
10. Negative input
11. Indicates that the value measured is frozen on the screen
12. Power button
13. Monitoring mode trigger button
14. Holding of the value measured
15. Differential measurement mode access button
16. Pressure unit selection button
17. Back-lighting

4. OPERATION OF THE INSTRUMENT

4.1. «MONITORING» MODE

When you press the «REC» button, you access the «monitoring» mode.

Before going into this mode, select the unit of pressure, as you will not be able to change it once you are in monitoring mode.

When you press the button, a clock is started and “REC” is displayed on the screen.

This mode enables you to time/date-stamp the maximum and minimum values in your measuring operation.

When you press the “REC” button a second time, MAX is displayed on the screen and the maximum value from the measuring operation is indicated on the main screen. The clock indicates the time when this event occurred during the measuring operation.

When you press a third time, you obtain the same information for the minimum value.

A fourth press returns you to the current value.

To exit from this mode, press the “REC” button for 3 seconds.

Note: The “differential measurement” mode is not accessible from the “monitoring” mode.

4.2. «DIFFERENTIAL MEASUREMENT» MODE

When you press the «DIF» button, you access the «differential measurement» mode.

The differential measurement mode measures the difference between two pressures. But it can also be used to quantify pressure variations (connect one input to your system and leave the other at atmospheric pressure).

Before going into this mode, select the unit of pressure, as you will not be able to change it once you are in monitoring mode.

When you press the button, the “DIF” symbol and the relative zero are displayed on the screen. From now on, only the pressure change will be indicated.

To exit from this mode, press the “DIF” button.

4.3. ADJUSTMENT OF THE ZERO

Leave the inputs at atmospheric pressure and press the «HOLD» button for 2 seconds. The screen switches off, indicates «0.0.0.0» from right to left and then the zero is displayed.

4.4. CALIBRATION AD ADJUSTMENT OF THE INSTRUMENT



Calibration can only be performed using a pressure calibrator.

- First, set the zero
- Then switch off the instrument
- Press the “REC” and “power” buttons simultaneously. “CA” appears on the screen. You are now in setting mode.
- Check that the unit selected is “psi” before starting to adjust the positive input.
- By default, the CA 852 uses 1.6 psi as the calibration point. However, it can be set between 1.5 and 1.7 psi. If the calibration source is not at 1.6 psi, adjust the calibration point with the “DIF” button to increase and with the “back-lighting” button to reduce.

- Record the calibration point by pressing the “REC” button. “SA” appears on the screen after 2 seconds. The pressure gauge then switches automatically to adjustment of the negative pressure.
- Follow the same calibration procedure for the negative pressure.
- Record the calibration point again. After 2 seconds, “END” and “CA” appear on the screen and the pressure gauge then returns to the measurement mode.

If you cannot record the calibration point using the “REC” button, the “SA” symbol is not displayed; check that:

- the pressure calibration source is between 1.5 and 1.7 psi
- you have connected the correct input: positive or negative

If you want to go directly to calibration of the negative input, press the “UNIT” button.

4.5. «STANDBY» MODE

The instrument is switched off automatically after approximately 20 minutes without any activity. For long monitoring periods, you can deactivate the “standby” mode by pressing the “power” and “HOLD” buttons simultaneously when the instrument is switched off. An “n” is displayed on the screen: “standby” mode is deactivated. The next time you switch on the pressure gauge, the “standby” mode will be reactivated.

4.6. ERRORS: CAUSES AND ACTION

No display:

Check that the battery is connected correctly and that its charge is sufficient.
If the screen display disappears, check that “standby” mode is not activated.

BAT display:

There may be measurement errors. Replace the battery.

Err. 1 :

When the pressure is greater than the upper limit of the measurement range, “Err. 1” is displayed on the screen.

Err. 2 :

When the pressure is less than the lower limit of the measurement range, “Err. 2” appears on the screen.

Err. 3 :

When you are in “differential measurement mode”, “Err. 3” is displayed if the differential pressure value is larger than the maximum display.

Err. 4 :

When you set the zero, make sure that no pressure is applied. Otherwise, “Err. 4” appears on the screen. If “Err. 4” appears on the screen even when no pressure is applied, it means that the sensor is damaged (see § 6 Repairs).



5. GENERAL SPECIFICATIONS

Measuring range:	0 to ± 2 psi
Maximum pressure:	20 psi
Resolution:	0.004 psi (see attachment 1 for the other measurement units)
Accuracy:	± 0.3 % full scale
Response time:	0.5 s
Display:	4-digit LCD screen
Climatic environment:	
Use:	Temperature: 0 to 50 °C (32 à 122°F) Maximum humidity: 80 % RH
Storage:	Temperature: -20 to 60°C (-4 to 140°F)
Maximum humidity:	80 % RH
Power supply:	One 9 V battery
Dimension / weight:	72 x 182 x 30 mm / 220 g (with battery)

6. MAINTENANCE

Only use specified spare parts for maintenance purposes. The manufacturer cannot accept any responsibility for accidents occurring following repairs carried out outside its after-sales department or approved maintenance network.

6.1. SERVICING

To replace the battery:

- Switch off the pressure gauge
- Remove the cover at the bottom of the instrument
- Replace the old battery with a 9V battery (6LR61 or 6LF22 type)

6.2. CLEANING THE CASING

Clean the unit with a cloth and a little soapy water.

Wipe off with a damp cloth.

Do not use any solvents.

6.3. METROLOGICAL CHECK

Like all measuring or testing devices, the instrument must be checked regularly.

This instrument should be checked at least once a year. For checking and calibration, contact one of our accredited metrology laboratories (information and contact details available on request), at our Chauvin Arnoux subsidiary or the branch in your country

6.4. REPAIRS

For all repairs before or after expiry of warranty, please return the device to your distributor.