

# Manometer

## MP 110 – MP 111

## MP 115 – MP 112

### KEY POINTS

- Easy to use
- Selection of units
- Adjustable backlight
- Manual autozero
- Hold-min-max function

### TECHNICAL FEATURES

<b>Measuring elements</b>	Piezoresistive sensor
<b>Tolerated overpressure</b>	MP 110 : 250 mbar / MP 111 : 700 mbar MP 115 : 1.4 bar / MP 112 : 3 bar
<b>Connector</b>	MP 110 / 111 : Ø 6.2 mm barbed connectors made of nickelled brass MP 115 / 112 : Ø 4.6 mm threaded connectors of nickelled brass
<b>Display</b>	4 lines, LCD technology. Sizes 50 x 36 mm. 2 lines of 5 digits with 7 segments (value) 2 lines of 5 digits with 16 segments (unit)
<b>Housing</b>	ABS, protection IP54
<b>Keypad</b>	5 keys
<b>Conformity</b>	Directives EMC 2004/108/CE and EN 61010-1
<b>Power supply</b>	4 batteries AAA LR03 1.5 V
<b>Autonomy</b>	180 hours
<b>Ambience</b>	Neutral gas
<b>Operating temperature</b>	From 0 to +50 °C
<b>Storage temperature</b>	From -20 to +80 °C
<b>Auto shut-off</b>	Adjustable from 0 to 120 min
<b>Weight</b>	220 g



### PRESSURE SPECIFICATIONS

Models	Measuring units	Measuring range	Accuracy <sup>1</sup>	Resolution
MP 110	Pa, mmH <sub>2</sub> O inWg, daPa	From -1000 to +1000 Pa	±0.5% of reading ±2 Pa	1 Pa
MP 111	Kpa, mmH <sub>2</sub> O, inWg, mbar, mmHg, daPa	From -1000 to +1000 mmH <sub>2</sub> O	±0.5% of reading ±2 mmH <sub>2</sub> O	De 0 à ±200 mmH <sub>2</sub> O : 0,1 mmH <sub>2</sub> O Au delà : 1 mmH <sub>2</sub> O
MP 115	kPa, inWg, mbar, mmHg, PSI	From -500 to +500 mbar	±0.5% of reading ±0.5 mbar	0.1 mbar
MP 112	kPa, inWg, mbar, mmHg, PSI, bar	From -2000 to +2000 mbar	±0.5% of reading ±2 mbar	1 mbar

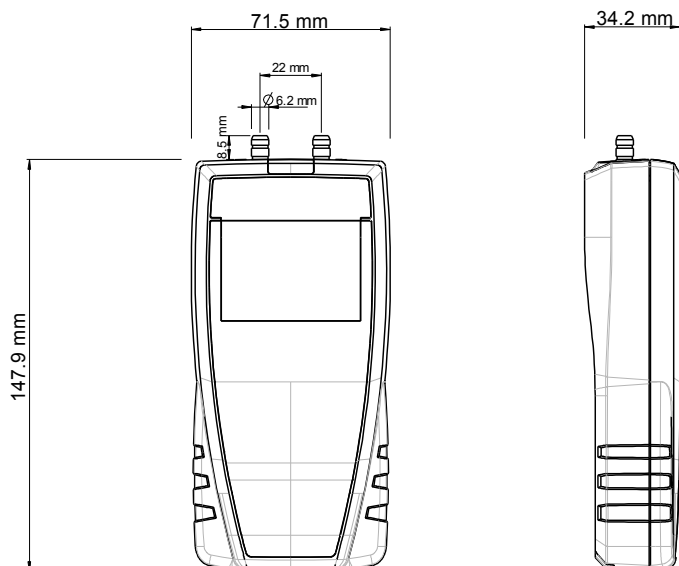
<sup>1</sup>All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation

\*Except class 110 S

### FUNCTIONS

- Pressure measurement
- Selection of units
- Manual autozero
- Hold function
- Display of minimum and maximum values
- Configurable Auto shut-off
- Backlight

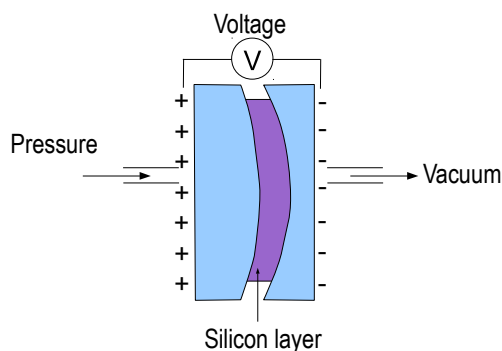
## DIMENSIONS



## OPERATING PRINCIPLES

### Piezoresistive sensor

The pressure deforms the silicon layer. This layer deformation generates a voltage at its terminates. This voltage is proportional to the pressure applied.



## SUPPLIED WITH

Instruments are supplied with:

- Calibration certificate\*
- 2x1 m of silicon tube  $\varnothing 4 \times 7$  mm
- Stainless steel tip  $\varnothing 6 \times 100$  mm
- Transport case (ref : ST 110)



\*Except class 110 S

## ACCESSORIES

**CQ 15** : Magnetic protective housing



**JTC ou JTY** : Straight junctions, in T or Y for tube  $\varnothing 5 \times 8$  mm

**Pitot tube** : Different lengths,  $\varnothing 3/6$  or 8mm, bent or straight



**MT 51** : ABS transport case



## MAINTENANCE

We carry out calibration, adjustment and maintenance of your instruments to guarantee a constant level of quality of your measurements. As part of Quality Assurance Standards, we recommend you to carry out a yearly checking.

## GUARANTEE

Instruments have 1-year guarantee for any manufacturing defect (return to our After-Sales Service required for appraisal).

# Manometer

## MP 110 – MP111 – MP112 – MP 115

---

### DESCRIPTION OF THE DEVICE

---



---

### PERFORM A MEASUREMENT

---

- > Turn on the device by pressing on « **On/Off/Esc** ».  
*The device displays its name « MP110 », « MP111 », « MP112 » or « MP115 », then performs an autozero.*
- > Connect the pressure tubes.  
*The device displays the pressure.*

---

### PERFORM AN AUTOZERO

---

- The device is on and displays the pressure measurements.*
- > Press on « **OK** ».  
*« **Autozero** » displays on screen, the device performs an autozero then returns to the measurements display.*

---

## FREEZE THE MEASUREMENT

---

During a measurement :

- Press on « **Hold/min/max** ».  
« **Hold** » appears on the screen and the measurements are frozen.
- Press on « **On/Off/Esc** » to exit the hold function.  
The device returns to the measurement display.

---

## DISPLAY THE MAXIMUM AND THE MINIMUM

---

Once the measurement are frozen :

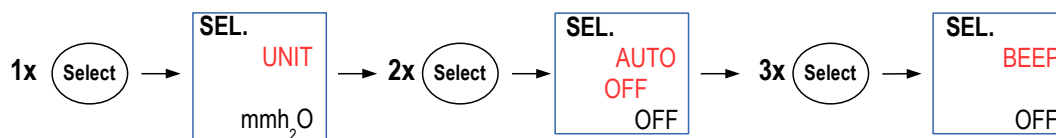
- Press once on « **Hold/min/max** ».  
The device display the maximum value of pressure measured since the last questioning at the top of the screen and the minimum value of pressure measured since the last questioning at the bottom of the screen.
- Press on « **On/Off/Esc** » to return to the measurement display.

---

## ADJUST THE DEVICE

---

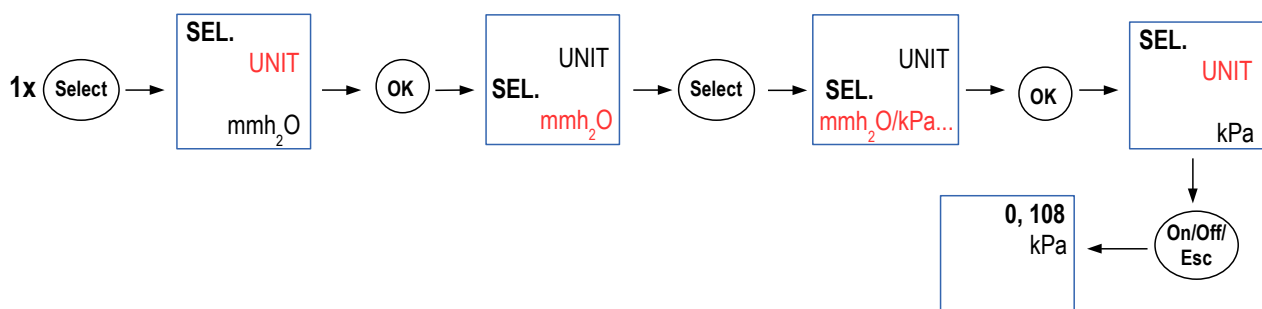
- **Device drop-down menu**



### Select the measuring unit in pressure :

The device is on and displays the measurement.

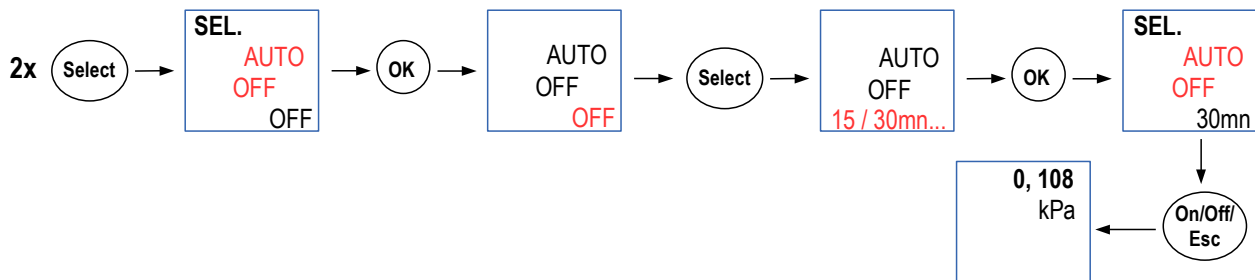
- Press on « **Select** ».  
« **UNIT** » blinks on screen.
- Press on « **OK** ».  
The unit currently used blinks on screen.
- Press on « **Select** » until the required unit appears : daPa, mmh2O, kPa, inWg, mbar, mmHg...
- Press on « **OK** » to validate.  
« **UNIT** » blinks on screen.
- Press on « **On/Off/Esc** » to return to the measurement display.



### Adjust the auto shut-off :

The device is on and display the measurement.

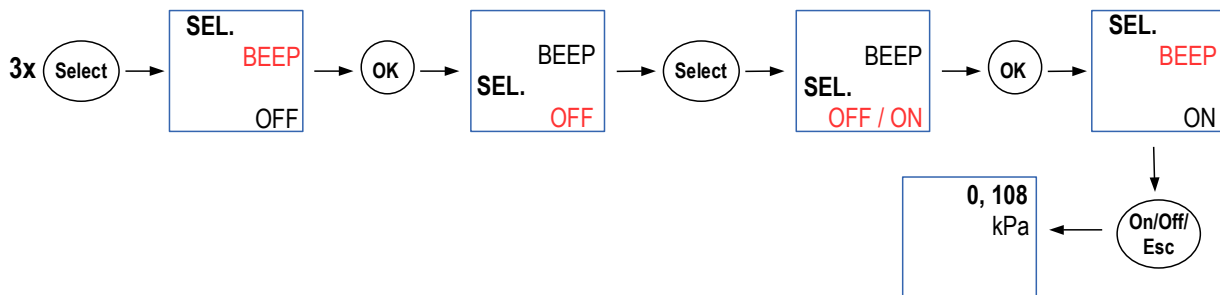
- Press on « **Select** » until « **AUTO OFF** » blinks on screen.
- Press on « **OK** ».
- The time before device auto shut-off blinks at the bottom of the screen.*
- Press on « **Select** » until the required time before auto shut-off appears : 15, 30, 45, 60, 75, 90, 105, 120 minutes or OFF.
- Press on « **OK** » to validate.
- « **AUTO OFF** » blinks on screen.*
- Press on « **On/Off/Esc** » to return to the measurement display.



### Activate or deactivate the keys beep :

The device is on and displays the measurement.

- Press on « **Select** » until « **BEEP** » blinks on screen.
- Press on « **OK** ».
- « **OFF** » or « **ON** » blinks on screen.*
- Press on « **Select** » to activate the key beep « **ON** » or deactivate it « **OFF** ».
- Press on « **OK** » to validate.
- « **BEEP** » blinks on screen.*
- Press on « **On/Off/Esc** » to return to the measurement display.



---

## ACTIVATE THE BACKLIGHT

---

The device is on.

- Press on « **Backlight** » :  to activate the device backlight.
- Press again on this key to deactivate the backlight.

---

## CHANGE THE BATTERIES

---

- Remove the front part at the back of the device.
- Change the old batteries by AAA LR03 1.5V batteries.
- Replace the front part.