

## Manometer MP 120



### KEY POINTS

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

### TECHNICAL FEATURES

<b>Measuring element</b>	Piezoresistive sensor
<b>Overpressure allowed</b>	250 mbar
<b>Connector</b>	Ø 6.2 mm threaded connectors made 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>European directives</b>	2004/108/EC EMC ; 2006/95/EC Low Voltage ; 2011/65/EU RoHS II ; 2012/19/EU WEEE
<b>Power supply</b>	4 batteries AAA LR03 1.5 V
<b>Battery life</b>	180 hours
<b>Ambiance</b>	Neutral gas
<b>Conditions of use (°C, %RH, m)</b>	From 0 to +50 °C. In non condensing conditions. From 0 to 2000 m.
<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

Measuring units	Measuring range	Accuracy <sup>1</sup>	Resolution
Pa, mmH <sub>2</sub> O inWg, daPa, m/s, fpm	From -1000 to +1000 Pa	±0.5% of reading ±2 Pa	1 Pa

### VELOCITY SPECIFICATIONS

Measuring units	Measuring range	Accuracy <sup>1</sup>	Resolution
m/s, fpm, km/h	De 0 à 40 m/s	From 2 to 5 m/s : ±0.7 m/s From 5 to 40 m/s : ±0.5% of reading ±0,3 m/s	0.1 m/s

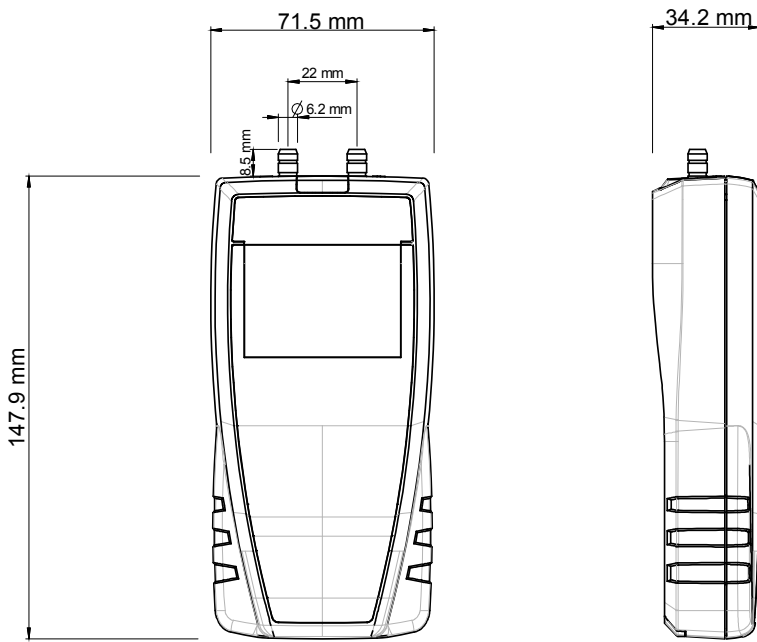
### FUNCTIONS

- Pressure measurement
- Air velocity measurement
- Coefficient of the adjustable differential pressure element
- Temperature and atmospheric pressure compensation
- Selection of units
- Autozero Manual
- Hold function
- Display of minimum and maximum values
- Configurable auto shut-off
- Backlight

<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

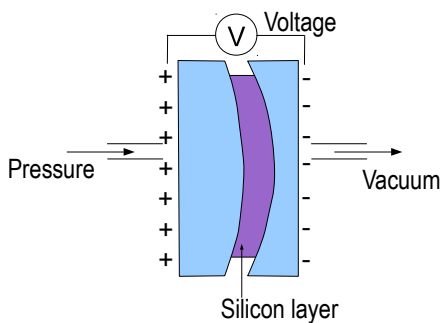
## DIMENSIONS



## OPERATING PRINCIPLES

### Piezorésistive sensor

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

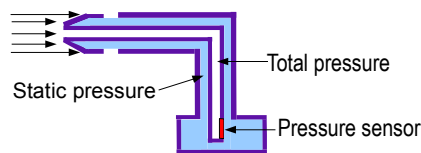


### Pitot tube

Dynamic pressure is measured by Pitot tube:  
 $P_d = \text{Total pressure (Pt)} - \text{Static pressure (Ps)}$   
 Air velocity is calculated according to Bernoulli simplified formula.

Formula with temperature correction :

$$V_{\text{mis}} = K \times \sqrt{\frac{574,2 \theta + 156842,77}{P_0}} \times \sqrt{\Delta P_{\text{en Pa}}}$$



$P_0$  = Barometric pressure in Pa  
 $\theta$  = Temperature in °C  
 K = Pitot tube coefficient

## SUPPLIED WITH

Instruments are supplied with :

- Calibration certificate\*
- 2x1 m de tube de silicone Ø 4 x 7 mm
- Stainless steel tip Ø 6 x 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 Ø 5x8 mm

**Pitot tubes**: Different lengths, Ø 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).

[www.kimo.fr](http://www.kimo.fr)



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