

Manometer MP 120



KEY POINTS

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

TECHNICAL FEATURES

Measuring element	Piezoresistive sensor
Overpressure allowed	250 mbar
Connector	Ø 6.2 mm threaded connectors made of nickelled brass.
Display	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)
Housing	ABS, protection IP54
Keypad	5 keys
European directives	2014/30/EU EMC ; 2014/35/EU Low Voltage ; 2011/65/EU RoHS II ; 2012/19/EU WEEE
Power supply	4 batteries AAA LR03 1.5 V
Battery life	180 hours
Ambiance	Neutral gas
Conditions of use (°C, %RH, m)	From 0 to +50 °C. In non condensing conditions. From 0 to 2000 m.
Storage temperature	From -20 to +80 °C
Auto shut-off	Adjustable from 0 to 120 min
Weight	220 g



PRESSURE SPECIFICATIONS

Measuring units	Measuring range	Accuracy ¹	Resolution
Pa, mmH ₂ 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 ¹	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

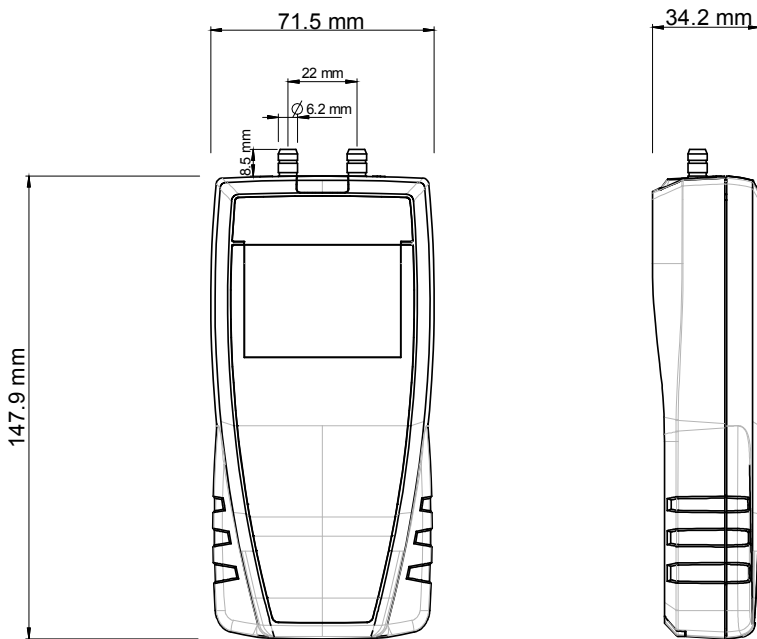
¹All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation

*Except class 110 S

FUNCTIONS

- Pressure measurement
- 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

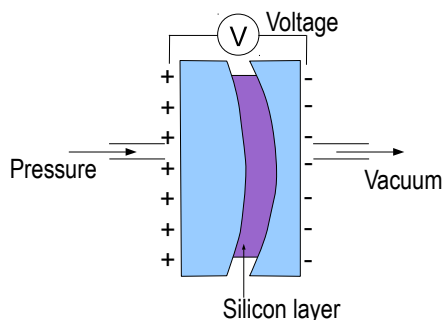
DIMENSIONS



OPERATING PRINCIPLES

Piezoresistive sensor

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



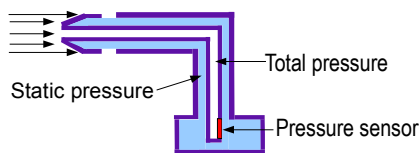
Pitot tube

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 :

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



P_0 = Barometric pressure in Pa
 θ = Temperature in $^{\circ}\text{C}$
 K = Pitot tube coefficient

SUPPLIED WITH

Instruments are supplied with :

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



*Except class 110 S

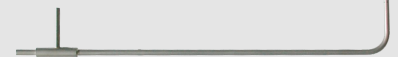
ACCESSORIES

CQ 15 : Magnetic protective housing



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

Pitot tubes: Different lengths, $\phi 3/6$ 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).

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