

# Technical Data Sheet

Pressure • Temperature • Humidity • Air Velocity • Airflow • Sound level



Supplied with\* Calibration certificate

## Manometers MP 100 - 101 - 105 - 112 MP 120

New

CE



### Functions

- Pressure
- Selection of units
- Manual automatic calibration
- HOLD function
- Minimum and maximum values
- Adjustable automatic shut-off
- Adjustable backlight
- Adjustable climatic parameters (MP120)
- Built-in calculation for velocity (MP120)

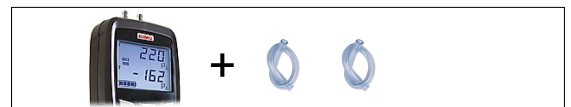
### Technical features

- Measuring element**.....piezoresistif sensor
- Overpressure allowed**.....MP 100 : 250mbar, MP101: 700mbar, MP105 : 1.4bar, MP112 : 3 bar, MP 120 : 250 mbar
- Pressure connectors**.....MP 100/101/120 : Ø 6.2 mm barbed connectors made of nickelled brass  
MP 105 et 112 : Ø 4.6 mm threaded connectors made of nickelled brass
- Display**.....2 lines, LCD technology. Sizes 50 x 34.9 mm.  
1 line of 5 digits with 7 segments (value)  
1 line of 5 digits with 16 segments (unit)
- Housing**.....Shock-proof made of ABS, IP54 protection
- Keypad**.....Metal-coated with 5 keys
- Conformity**.....electromagnetical compatibility (NF EN 61326-1 guideline)
- Power supply**.....1 alcaline battery 9V 6LR61
- Operating temperature**.....from 0 to 50°C
- Storage temperature**.....from -20 to +80°C
- Auto shut-off**.....adjustable from 0 to 120 min
- Weight**.....190g
- Languages**.....French, english

### MP 100 - 101 - 120

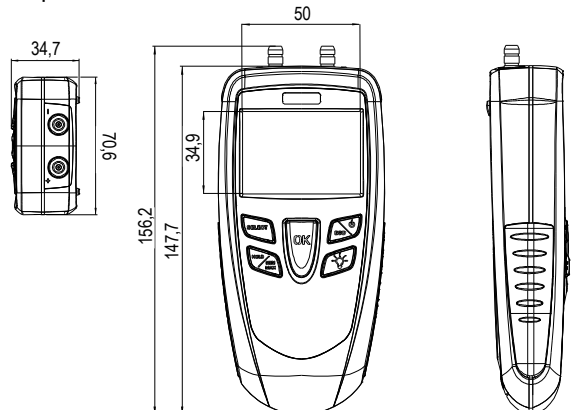


### MP 105 - 112



### Dimensions (mm)

- Top view
- Front view
- Side view



\*except class 100S

[Kimo MP 100 Manometer](#)

[Kimo MP 101 Manometer](#)

[Kimo MP 105 Manometer](#)

[Kimo MP 112 Manometer](#)

[Kimo MP 120 Manometer](#)

## Specifications

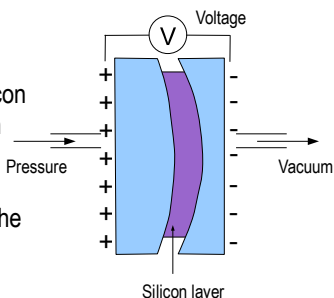
|                                | Measuring units                                 | Measuring range                     | Accuracy*                              | Resolutions   |
|--------------------------------|---|-------------------------------------|--|---|
| <b>PRESSURE</b>                |   |                                     |  |   |
| MP 100                         | Pa, mmH <sub>2</sub> O, inWg, daPa              | from 0 to ±1000 Pa                  | ±0.5% of reading ±2 Pa                 | 1 Pa  |
| MP 101                         | kPa, mmH <sub>2</sub> O, inWg, mbar, mmHg, daPa | from 0 to ±1000 mmH <sub>2</sub> O  | ±0.5% of reading ±2 mmH <sub>2</sub> O | 0 to ±200mmH <sub>2</sub> O : 0,1 mmH <sub>2</sub> O<br>beyond : 1 mmH <sub>2</sub> O |
| MP 105                         | kPa, inWg, mbar, mmHg, PSI                      | from 0 to ±500 mbar                 | ±0.5% of reading ±0,5mbar              | 0,1 mbar  |
| MP 112                         | kPa, inWg, mbar, mmHg, PSI, bar                 | from 0 to ±2000 mbar                | ±0.5% of reading ±2mbar                | 1 mbar  |
| MP 120                         | Pa, mmH <sub>2</sub> O, inWg, m/s, fpm, daPa    | from 0 to ±1000 Pa                  | ±0.5% of reading ±2 Pa                 | 1 Pa  |
| <b>AIR VELOCITY Pitot tube</b> |   |                                     |  |   |
| MP 120                         | m/s, fpm, Km/h                                  | from 2 to 5 m/s<br>from 5 to 40 m/s | ±0.7 m/s<br>±0.5% of reading ±0.3 m/s  | 0.1 m/s   |

\*All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurements carried out in the same conditions, or carried out with required compensation.

## Working principle

### Piezoresistif sensor

Piezoresistif sensor is a diaphragm formed on a silicon substrate, which bends with applied pressure and generates millivoltage or millicurrent proportional to the pressure applied.



### Pitot tube

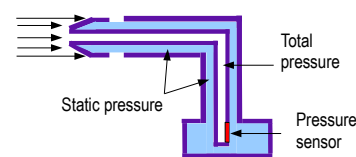
Dynamic pressure is measured by Pitot tube :

$P_d$  = Total pressure – Static pressure

Velocity is calculated according to Bernoulli simplified formula.

Formula with temperature correction :

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



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

## Supplied with ...

| DESCRIPTION  | MP 100 | MP 101 | MP 105 | MP 112 | MP 120 |
|--|--------|--------|--------|--------|--------|
| Pressure sensor from 0 to ±1000 Pa                 | ●      |        |        |        | ●      |
| Pressure sensor from 0 to ±1000 mmH <sub>2</sub> O |        | ●      |        |        |        |
| Pressure sensor from 0 to ±500 mbar                |        |        | ●      |        |        |
| Pressure sensor from 0 to ±2000 mbar               |        |        |        | ●      |        |
| Pitot tube Ø 6mm, length 300 mm                    | ○      | ○      | ○      | ○      | ○      |
| 2x1 m clear tube Ø 4 x 6 mm                        | ○      | ○      | ●      | ●      | ○      |
| 2x1 m silicone tube Ø 4 x 7 mm                     | ●      | ●      | ○      | ○      | ●      |
| Stainless steel tip Ø 6 x 100 mm*                  | ●      | ●      |        |        | ●      |
| Calibration certificate*                           | ●      | ●      | ●      | ●      | ●      |
| Transport case                                     | ●      | ●      | ●      | ●      | ●      |

\*except class 100S



- Included
- Optional

## Accessories (See related datasheet)

| CE 100  | J.T.C or J.Y.C                                   | See related datasheet   |
|---|--|---|
| Protective cover with magnet and holding system | Straight connections, in T or Y for tube Ø 5x8mm | Pitot Tube available in many lengths Ø 3/6 or 8mm, with or without temperature compensation |

## Warranty period

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