KIMO INSTRUMENTS

Technical Data Sheet

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

Supplied with* Calibration certificate

New

CE

Manometers

MP 100 - 101 – 105 – 112
MP 120

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

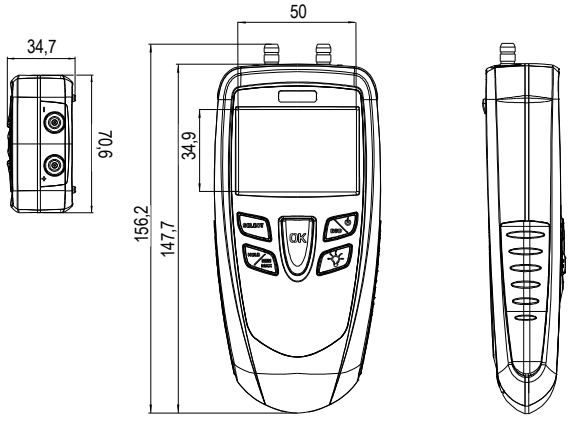
*except class 100S

MP 100 – 101 – 120

MP 105 - 112

Dimensions (mm)

• Top view • Front view • Side view



Specifications

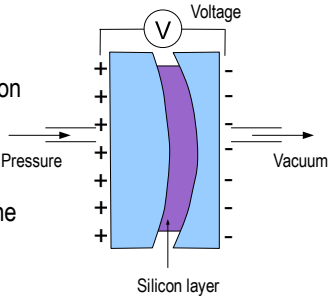
	Measuring units	Measuring range	Accuracy*	Resolutions
PRESSURE				
MP 100	Pa, mmH2O, inWg, daPa	from 0 to ±1000 Pa	±0.5% of reading ±2 Pa	1 Pa
MP 101	kPa, mmH2O, inWg, mbar, mmhg, daPa	from 0 to ±1000 mmH_2O	±0.5% of reading ±2 mmH_2O	0 to ±200mmH_2O : 0,1 mmH_2O beyond : 1 mmH_2O
MP 105	kPa, inWg, mbar, 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, mmH2O, inWg, m/s, fpm, daPa	from 0 to ±1000 Pa	±0.5% of reading ±2 Pa	1 Pa
AIR VELOCITY Pitot tube				
MP 120	m/s, fpm, Km/h	from 2 to 5 m/s from 5 to 40 m/s	±0.7 m/s ±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.

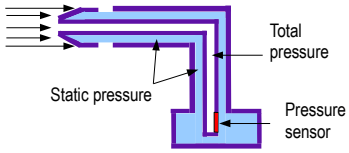


Pitot tube

Dynamic pressure is measured by Pitot tube :
Pd = Total pressure – Static pressure

Velocity is calculated according to Bernoulli simplified formula.

Formula with temperature correction :



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

Po = Barometric pressure in Pa
θ = 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_2O		●			
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
○ Optionnal

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).

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