

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)

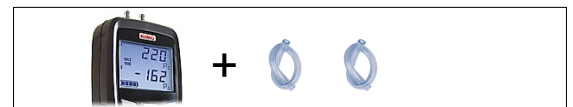
Technical features

- 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

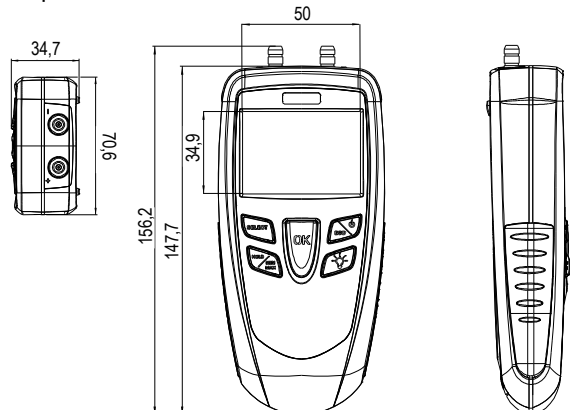


MP 105 - 112



Dimensions (mm)

- Top view
- Front view
- Side view



*except class 100S

Specifications

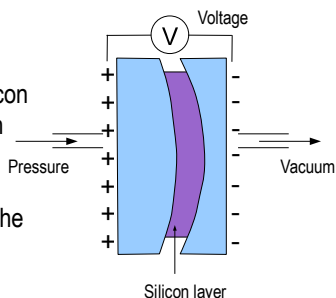
| | Measuring units | Measuring range | Accuracy* | Resolutions |
|--------------------------------|-------------------------------------------------|-------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------|
| PRESSURE | | | | |
| MP 100 | Pa, mmH ₂ O, inWg, daPa | from 0 to ±1000 Pa | ±0.5% of reading ±2 Pa | 1 Pa |
| MP 101 | kPa, mmH ₂ O, inWg, mbar, mmHg, daPa | from 0 to ±1000 mmH ₂ O | ±0.5% of reading ±2 mmH ₂ O | 0 to ±200mmH ₂ O : 0,1 mmH ₂ O beyond : 1 mmH ₂ 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 ₂ O, 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

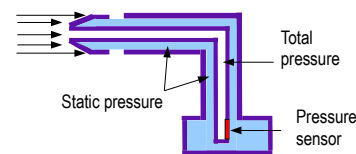
Dynamic pressure is measured by Pitot tube :

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
 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 ₂ 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).