Manometers

MP 105 – 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

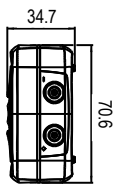
Measuring element	piezoresistif sensor
Overpressure allowed	
	MP105 : 1.4bar
	MP 120 : 250 mbar
Pressure connectors	MP 120 : Ø 6.2 mm barbed connectors made of nickelled brass
	MP 105 et 112 : Ø 4.6 mm threaded connectors made of nickelled brass
Display	2 lines, LCD technology. Sizes 50 x 34.9 mm.
	1 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 alkaline 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	6.7 oz.
Languages	English, French

MP 120 = Manometer + AIR VELOCITY

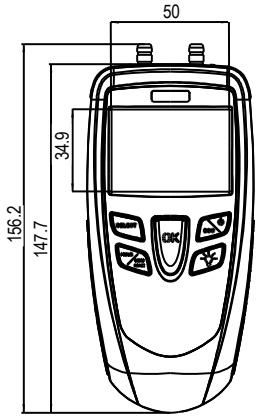
MP 105 – High Range Manometer

Dimensions (mm)

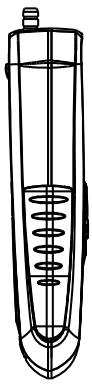
• Top view



• Front view



• Side view



Specifications

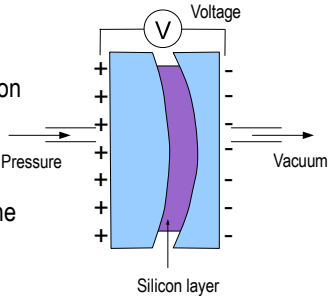
	Measuring units	Measuring range	Accuracy*	Resolutions
PRESSURE				
MP 105	kPa, inWg, mbar, mmHg, PSI	from 0 to ±200 inH_2O (500 mbar)	±0.5% of reading ±0.5 mbar	0.01 inH2O
Pressure + AIR VELOCITY Pitot tube				
MP 120	kPa, inWg, mbar, mmHg, PSI m/s, fpm, Km/h	from 0 to ±4 inH_2O (1000 Pa) from 2 to 5 m/s from 5 to 40 m/s	±0.5% of reading ±2 Pa ±0.7 m/s ±0.5% of reading ±0.3 m/s	0.01 inH2O 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.

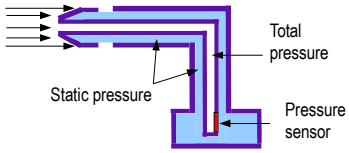


Pitot tube

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

Velocity is calculated according to Bernoulli simplified formula.

Formula with temperature correction :



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

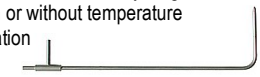
Po = Barometric pressure in Pa
θ = Temperature in °C
K = Pitot tube coefficient

Supplied with ...

DESCRIPTION	MP 105	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	●	●

● 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 Service Department required for Calibration & repair).

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