

**TECHNICAL DATA SHEET**



# MVI and MVL INDUSTRIAL MANOMETERS

## PRESENTATION

The MVI and MVL range of manometers are for industrial applications and are in stainless steel with a vertical liquid column for precise measurement of very low positive pressures (+), negative pressures (-) and differential pressures ( $\Delta P$ ) of air or neutral gases. They are used in all types of industry and are particularly recommended for departments of quality control, metrology, calibration...

## THE MEASUREMENT PRINCIPLE

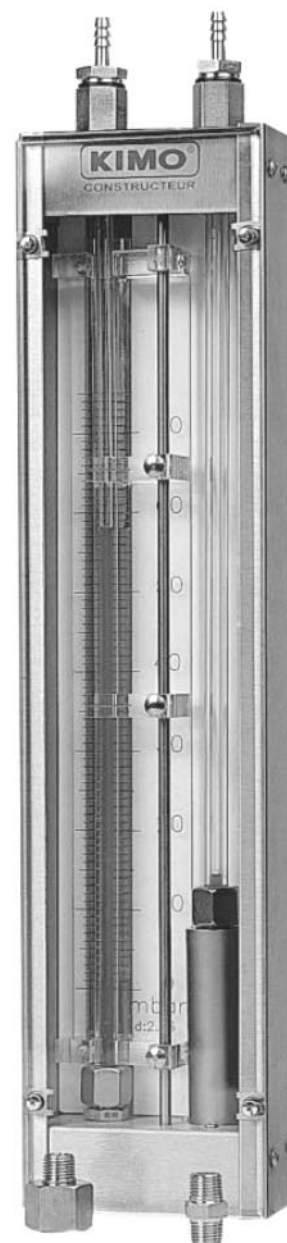
Designed for carrying out physical measurements, the MVI and MVL liquid column manometers are reliable and highly accurate.

They are made up of a Pyrex tube (MVI) or are in borosilicate glass calibrated for high precision measuring (MVL), linked to a reservoir which contains the manometric read-off liquid.

The liquid moves in the tube in front of a graduated scale and a rear mirror corrects any errors due to parallax. Two cursors which are adjustable throughout the whole of the scale act as recorders or reference marks for the values measured.

## MEASUREMENT RANGE

So as to meet all requirements, a range of 5 instruments in the MVI and MVL series enables measurements to be carried out from 0 to 2000 mbar using manometric liquids of different densities : VF1, AWS 10, VOLT 1S, Tetrabromide, HG. (See table below).



Reference	VF 1 d = 1 mm CE	AWS 10 d = 0.87 mm CE	VOLT 1S d = 1.86 mm CE	Tetrabromide d = 2.96 mbar	HG d = 13.545 mbar
MVI 250 ou MVL 250	0 - 250	0 - 250	0 - 450	0 - 75	0 - 350
MVI 500 ou MVL 500	0 - 500	0 - 450	0 - 950	0 - 150	0 - 700
MVI 750 ou MVL 750	0 - 750	0 - 650	0 - 1400	0 - 225	0 - 1000
MVI 1000 ou MVL 1000	0 - 1000	0 - 850	0 - 1900	0 - 300	0 - 1400
MVI 1500 ou MVL 1500	0 - 1500	0 - 1300	0 - 2800	0 - 450	0 - 2000
Resolution	1 mm CE	1 mm CE	5 mm CE	1 mbar	2 mbar

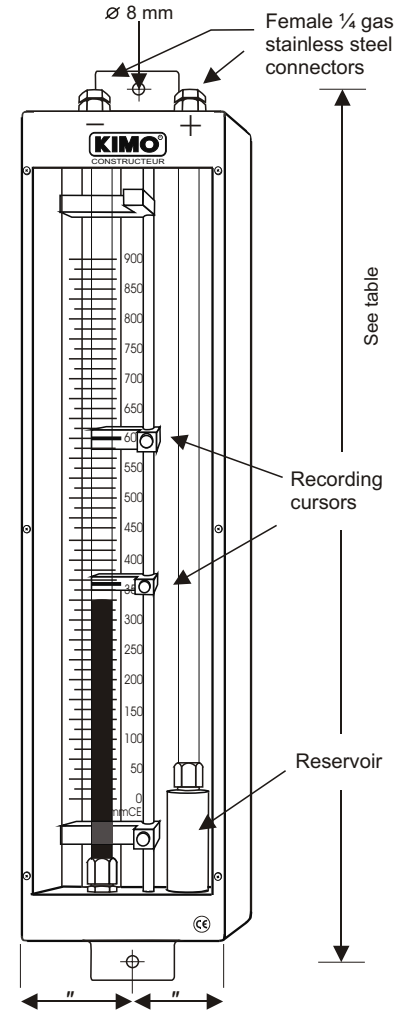
## CHARACTERISTICS

The difference in the MVI-MVL range of manometers lies in the quality and accuracy of the glass liquid columns :

- **MVI series** : Tube in Pyrex.
- **MVL series** : Tube in borosilicate **high-precision calibrated**.
- Scale : See table.
- Black graduation on white background
- Slide strip : mobile, zero point adjustment, travel 30 mm.
- Recording cursors : adjustable throughout the scale
- Liquid column :
  - Pyrex tube int.Ø 4,  $\pm 0.7$  mm (MVI series).
  - Calibrated borosilicate glass tube, int.Ø 4,  $\pm 0.015$  mm (MVL series).
- Precision at 20-22°C :
  - Pyrex tube, **MVI series** :  $\pm 1\%$  of reading, minimum  $\pm 3$ mm.
  - Calibrated borosilicate glass tube, **MVL series** :  $\pm 0.3\%$  of the reading, minimum,  $\pm 2$ mm
- Resolution : see table on front page
- Reservoir : stainless steel 316L.
- Connection : stainless steel, female & cylindrical  $\frac{1}{4}$  gas
- Liquid : see table on front page
- Wall-mounted
- Casing : stainless steel 316L.
- Front Altuglas-protected
- Operating temperature : -20 to +70°C depending on the liquid used
- Possibility of resisting to static pressures from 10 to 40 bars (according to the length of the tubes).

The MVI and MVL manometers come with calibration certificate and 2 bottles of liquid (20 ml).

Options : grooved connections - stainless steel valves.



## DIMENSIONS AND MOUNTING

Reference	Width	Height	Depth	Weight	Distance between mounting points
<b>MVI 250 ou MVL 250</b>	102 mm	445 mm	59 mm	2,5 Kg	485 mm
<b>MVI 500 ou MVL 500</b>	102 mm	679 mm	59 mm	3 Kg	719 mm
<b>MVI 750 ou MVL 750</b>	102 mm	921 mm	59 mm	4 Kg	961 mm
<b>MVI 1000 ou MVL 1000</b>	102 mm	1192 mm	59 mm	5,5 Kg	1232 mm
<b>MVI 1500 ou MVL 1500</b>	102 mm	1676 mm	59 mm	7,5 Kg	1716 mm

## ACCESSORIES

- Ref. 487 S** Grooved connections, made of nickel-plated brass, Ø7 mm, cylindrical plug  $\frac{1}{4}$  gas.
- 349** Grooved connections, made of stainless steel, Ø5 mm, cylindrical plug  $\frac{1}{4}$  gas.
- 348** Grooved connections, made of stainless steel Ø7 mm, cylindrical plug  $\frac{1}{4}$  gas.
- 347** Grooved connections, made of stainless steel Ø10 mm, cylindrical plug  $\frac{1}{4}$  gas.
- 346** Nipple made of stainless steel, hexagonal plug-plug, coned  $\frac{1}{4}$  gas.
- 345** Shut-off valve, made of stainless steel, socket-socket, cylindrical  $\frac{1}{4}$  gas (equipped with a nipple '346').
- 341** Single plug connection, made of stainless steel, cylindrical  $\frac{1}{4}$  gas, for connection to a rigid tube Ø6 mm.
- 342** Single plug connection, made of stainless steel, cylindrical  $\frac{1}{4}$  gas, for connection to a rigid tube Ø8 mm.
- 343** Single plug connection, made of stainless steel, cylindrical  $\frac{1}{4}$  gas, for connection to a rigid tube Ø10 mm.
- 344** Single plug connection, made of stainless steel, cylindrical  $\frac{1}{4}$  gas, for connexion to a rigid tube Ø12 mm.

## MAINTENANCE

In accordance with **Quality Ensurance** norms, we recommend changing the manometric liquid and carrying out calibration annually depending on the frequency of utilization.

### EXPORT DEPARTMENT

Tel : +33. 1. 60. 06. 69. 25 - Fax : +33. 1. 60. 06. 69. 29  
 site : [www.kimo.fr](http://www.kimo.fr) e-mail : [export@kimo.fr](mailto:export@kimo.fr)



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