



Figure 1 Mecon Variable Area Flow Meter TM 250

## Application

The TM 250 variable area flow meters with a standard length of 250 mm (9.84 inch) and a completely metal design can be used to measure many different types of liquids and gases passing through closed piping. The robust design means that they can also be used in rough conditions. Different types of flanges, liners and float materials satisfy the requirements of the pharmaceutical and chemical industries.

The measured value is displayed directly on the scale, and output via a switch contact or as a current output.

The main applications for the TM 250 can be found in the following fields:

- Chemical industry
- Water
- Power generation and distribution.

## Special Features

Standard design available at short notice

- Robust all-metal fitting with impact-resistant housing cover
- Can also be used for corrosive and flammable media
- Use possible at high pressures and temperatures
- Product and percentage scales
- Can be optionally fitted with heating and cooling sheaths
- Contamination-insensitive guiding of float.

## Design and Mode of Operation

The TM 250 operates like the other units in the TM 250 range according to the variable-area flow tube principle: the flowing medium lifts the conical float in the flow tube. The annular gap is then increased until equilibrium exists between the buoyant force of the medium and the force due to the weight of the float. The height of the float is directly proportional to the flow quantity. The movement of the float is transmitted by a magnet to a slave magnet in the display unit outside the flow tube.

The contacts or the electric remote sensor are controlled by a contact lug or a cam which is mounted on the pointer shaft.

## Technical Data

TM 250 (Variable area flow meter)		
Liquids	min.	1.6 - 16 l/h
	max.	10 - 100 m <sup>3</sup> /h
	min.	0.007 - 0.070 USgpm
	max.	44 - 440 USgpm
		transparent and non transparent
Air/Gases	min.	005 - 0.5 m <sup>3</sup> /h
	max.	63 - 630 m <sup>3</sup> /h
	min.	0.220 - 2.202 USgpm
	max.	277 - 2.774 USgpm
Pressure	max.	250 bar, 3,626 psi
Temperature	max.	+300 °C, 572 °F
Accuracy		±2.0 % / ±1.6 % (optional) of full scale value
Installation position		vertical
Flow direction		vertically upwards
Connections		G ¼ - 2
		NPT ¼ - 2
		DN 15 - 100
		ANSI ½" - 4"
		JIS 10 - 100
Accessories		switching contacts, analogue output 0/4 - 20 mA, HART®, PROFIBUS
PED 97/23/EC	Cat.	Art. 3.3 (≤DN25) I (>DN 25) fluid group 1

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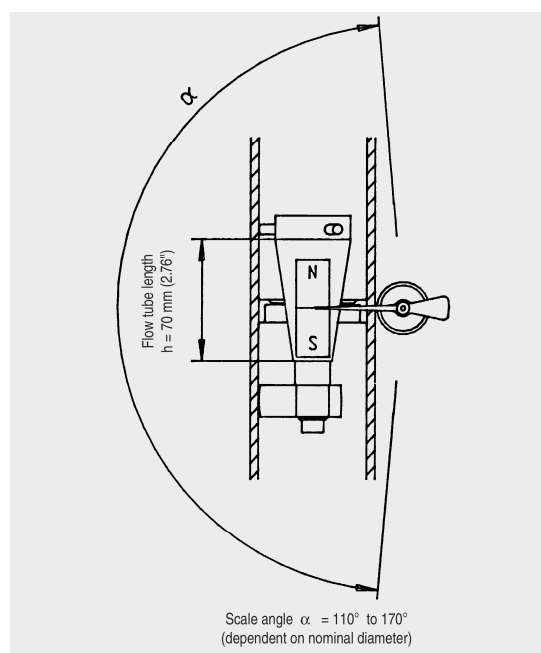


Figure 2 Flow tube/scale angle