

Anaesthetic VA Flowmeter

GAPMETER TYPE AGTF

Platon glass tube anaesthetic gas flowmeters are manufactured for medical equipment suppliers Worldwide, with actual scales and markings tailored to individual equipment requirements.

Tubes and floats are supplied as a calibrated set, normally without a frame. These are then incorporated into the manufacture of an anaesthetics trolley or other equipment.

FEATURES

- Instantaneous in response
- Reliable in operation
- High visibility scale fused into flow tube surface
- Float rotation gives operator confidence of correct performance
- Borosilicate glass tube, anti-static coated to prevent problems
- Flow ranges from 10:1 to 150:1 available
- Individual flow calibration
- Evenly spaced, bold scale markings
- Standard gases – Air, Oxygen, Nitrous oxide

CUSTOM ENGINEERED

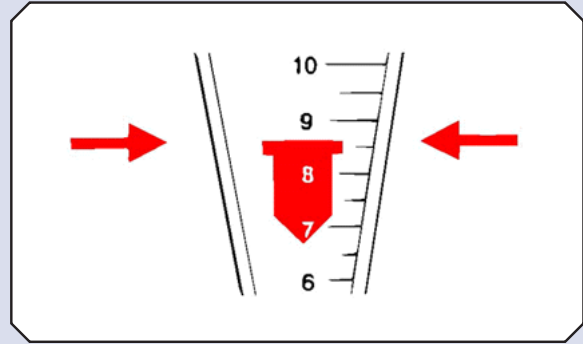
- Gas colour coding for easy identification
- Keyed lengths to ensure correct installation
- Customer logo for flow limit marks



PRINCIPLE OF OPERATION

Flow up the tapered tube lifts the float to an equilibrium position. Flow rate is then measured against the flat top edge of the float, reducing parallax errors.

Platon glass variable area (VA) flowmeters are ideal for measurement of anaesthetic gases. The free float is instantaneous in response, and the visible float rotation immediately confirms correct flowmeter operation to the operator. VA flowmeters are highly repeatable in operation, giving reliability and confidence. The ceramic ink scale is fused into the glass tube outer surface, and cannot be removed or displaced. Calibration accuracy can be specified to suit the application, with each tube & float individually gas flow calibrated.



Platon instrumentation has a flow test laboratory, which is UKAS/NAMAS accredited for gas flow calibrations up to 35 dm³/min (35 L/min). This is one of the few UK laboratories capable of providing such an independently checked and audited facility. The flow calibration uncertainty at the 95% confidence level is $\pm 0.5\%$ of reading. All calibration equipment used for anaesthetic flowmeter production scaling is regularly checked in this laboratory, giving confidence in the traceability of all production units.

SPECIFICATION

Tube material:	Borosilicate glass anti-static coated
Tube length:	Keyed lengths typically 230/240/250/260mm (± 0.5 mm) Ends square cut and flame polished for sealing.
Tube diameter:	OD 12mm or 15mm nominal
Scale:	Fused ceramic black ink
Float:	Precision machined Duralumin, red anodised with coloured dot. Float body is fluted to cause rotation in gas flow
Float end stops:	Polypropylene
Calibration:	Individually gas flow calibrated for tube & float as a matched pair
Accuracy	
As required:	Typically: a) $\pm 2\%$ FSD b) Class 2.5 VDI/VDE 3513 c) ± 2.5 mm of true scale position d) $\pm 10\%$ reading
Turndown:	Typical 10:1 Maximum 150:1 (dual taper)
Standard Gases:	Oxygen, Nitrous oxide, Air
Typical Ranges:	0.1 – 1.0 L/min (at ATP, 1.013 Bar and 20°C) 1.0 – 10 L/min 0.1 – 15 L/min

OPTIONS

- Other gases eg Carbon dioxide, Helium, Cyclohexane, or other flow ranges or calibration conditions
- Alternative scale units
- Short tubes (150mm) or Imperial lengths
- Special flow ranges eg for Premature Baby units
- Calibration check and certification from our own UKAS/NAMAS accredited flow test laboratory

Every effort has been made during the preparation of this document to ensure the accuracy of statements and specifications. However, we do not accept liability for damage, injury, loss or expense caused by errors or omissions made. We reserve the right to withdraw or amend products or documentation without notice.

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