

Platon Screwed Metal Tube VA Flowmeter

PLATON GMTB & S SERIES

Part of the Platon GMT Variable Area flowmeter family, models GMTB and GMTS are brass or Stainless Steel tube flowmeters with female screwed connections. With 1/2", 1" and 2" BSP/NPT threaded fittings standard, the meters are ideal for arduous industrial service as an alternative to large glass tube flowmeters. They have particular advantages for gas or liquid flow measurement at high pressures and temperatures, where the fluids are opaque or dark coloured or to provide higher operational security for dangerous or toxic materials.

The VA meter principle used in the Platon GMT flowmeter measures the position of a float in a precision-machined tapered tube. The float rises with the flow up the taper until the upthrust from the flow balances with the weight of the float. A magnet, electron beam welded into the float casing, drives the external meter indication over a 100mm scale typically displaying a 10:1 flow range.

Options available on the GMTB/GMTS include (GMTA) flow alarm outputs for high or low adjustable set points and electronic 4-20mA flow transmitter (GMTX) outputs. All of these are available with CENELEC intrinsically safe approval. For low-pressure Natural gas flow measurement, models are available with minimal line pressure loss. Special versions are available for Oxygen service. All units are available calibrated for the specific line conditions or fluid involved.

FEATURES

- Economic construction
- BSP/NPT screwed end fittings
- Brass or Stainless Steel
- Wide flow ranges
- Sizes 15, 25, 50mm. 1/2"; 1"; 2" bore
- Integral damping on gas flow lines
- Local indication
- Calibration for wide range of gases and liquids
- Optional electronic outputs



SPECIFICATION

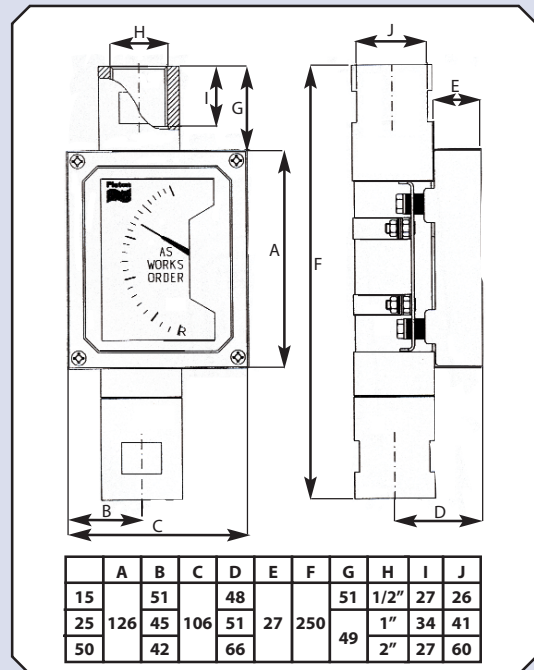
Body Materials	GMTB: Brass GMTS: 316 Stainless Steel
Float & Float Guides	316 Stainless Steel
Indicator Housing	Aluminium alloy LM25M polyester coated, weather-proofed to IP65
Connections	BSP or NPT female thread sizes 1/2", 1", 2"
Scale Length	100mm, 150 degrees. Air or water. Standard scales. Custom scales available to order
Turndown Accuracy	Typically 10:1 ±2% FSD
Hysteresis Pressure	Less than 0.5% GMTB: 75 bar GMTS: 100 bar
Temperature	200°C
Max Min	-50°C (Based on Ambient of 20°C)
Dashpot Damper	To smooth out flow fluctuations and noise on gas flows, a dashpot damper is built in. This is suitable for clean gases where particulate matter is less than 50 microns.
Natural Gas	Std variants available for low pressure drop applications, using PVC float assemblies See catalogue for full details. Specify line pressure and flow range when enquiring.
Approvals	CRN (Contact sales for details)

INSTALLATION NOTES

1. The instrument should be installed vertically in the pipework with the direction of flow vertically upwards.
2. Ensure that any ferromagnetic material is clear of the body and indicator case by 100mm minimum.
3. The upstream and downstream pipe bores should be the same nominal size as the instrument. Straight pipe lengths of 5 diameters upstream and 2 diameters downstream should be provided if possible.
4. Before the meter is installed, the pipeline should be checked, cleaned and flushed to eliminate any foreign matter. An appropriate filter should be fitted upstream if any particle present is likely to be greater than 50 microns.
5. Solenoid valves should not be used where they act directly on the instrument.

OPTIONS AVAILABLE

- Calibration for different liquids or gases or for non-standard operating process conditions
- Flow alarm outputs (GMTA) or analogue 4-20mA (GMTX, DS1225) outputs, with CENELEC approval if required
- Higher pressure or temperature models
- Alternative materials
- Flanged and hygienic connections
- Hygienically polished
- PTFE lined flanged units
- Special models for Oxygen service, including all brass designs. Stainless Steel flanged versions of the GMT flowmeter are described in Roxspur data DS1220



Size	Model	Max Water Flow L/h 20°C	Max Air Flow m ³ /h at 20°C, 1.013 bar abs	Pressure Drop At Max Flow (mbar)
15mm	GMT*151†	160	5	15
	GMT*152†	250	7.5	30
	GMT*153†	400	12	20
	GMT*154†	600	18	35
25mm	GMT*251†	1000	30	15
	GMT*252†	1600	50	30
	GMT*253†	2500	75	35
	GMT*254†	4000	120	80
	GMT*255†	6000	200	160
50mm	GMT*351†	6000	180	30
	GMT*352†	10000	300	40
	GMT*353†	16000	600	80
	GMT*354†	25000	1000	190

* In the model code, GMTB represents Brass and GMTS Stainless Steel flow tube construction.
† The final suffix is L for Liquid and G for Gas operation.

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