

RNG GAS TURBINE FLOWMETER

This range of steel bodied flowmeters provide a digital display of flowrate of gases over the range of 3 to 400m³/hour.

Stainless steel construction ✓

Robust
Low maintenance and down time

High quality manufacture ✓

ISO 9001 certified company
Approvals for use in hazardous areas
Individual calibration certificates

Low pressure drop ✓

Bi-directional flow capability ✓



Application

This range of flowmeters is used for a wide range of gases, both inert and flammable. You can use them for batching, flow rate monitoring, controlling and blending. The flowmeter is used to provide a digital display of the flowrate and total flow.

In hazardous areas, you can use the flowmeters with the ATEX approved IS pick-off coil. The signal can be used in the IS area or transmitted to the safe area using the intrinsically safe P5 preamplifier and suitable barriers.

Instrumentation

The signal can be used for a local display, remote display or converted for transmission to a separate control system.

Principle of Operation

When liquid flows and the rotor turns, the sensor detects the movement of the blade tips and generates pulses. The frequency of the pulses is proportional to the flowrate.

Construction

The steel construction is durable. They hybrid ball bearings provide you with highly reliable performance over long periods.

Calibration

All RNG gas turbine flowmeters are individually calibrated.

We provide you with a test certificate for each meter showing the number of pulses per m³ which is used to set the instrumentation.

Installation

The flowmeter is installed directly into the pipeline. To reduce turbulence and get the best results from your flowmeter we recommend that you install it in a straight section of pipe with at least 10 pipe diameters upstream and 5 pipe diameters downstream.

Control valves should be installed downstream of the flowmeter.

To prevent foreign particles blocking your line we recommend you install a filter before the flowmeter. Preamplifiers are only needed if you have very long transmission distances or an electrically noisy environment close to pumps, motors, generators, switchgear or heavy current carrying cables.

Intrinsically safe systems always require an IS pick-off coil. The IS P5 preamplifier is required for transmission to a safe area through barriers.

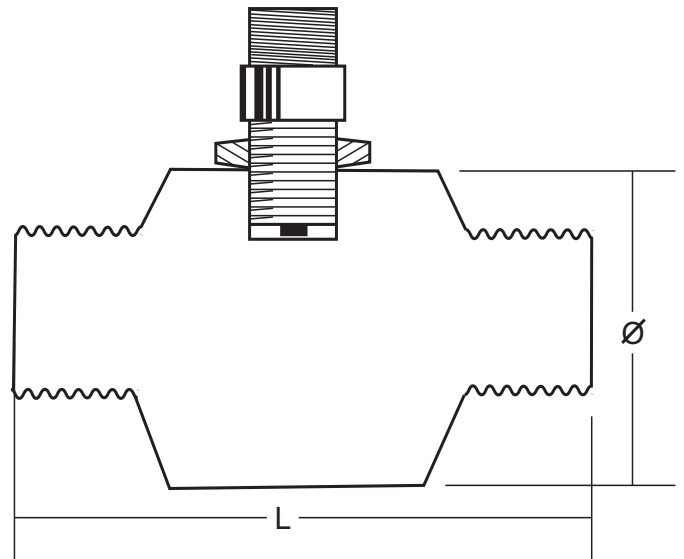
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Specification

Linearity: +/- 1%
 Repeatability: +/-0.2% of reading
 Pressure drop: 0.05 bar at maximum flow
 Maximum overrange: Up to 120% of the maximum flow rate for short durations
 Maximum working pressure: Dependent on end connection
 Temperature range: -20 °C to 110 °C
 Body connections: Flanged ANSI, PN or BS
 Screwed BSP

Materials of Construction

Body: 316 stainless steel
 Bearings: Hybrid ceramic / steel ball race
 Rotor: 431 stainless steel
 Rotor shaft: 316 stainless steel
 Hangers: 316 stainless steel



Flowrate Ranges

Model Number	Size mm	Flow Range m ³ /hour	Linearity
RNG/25	25	3-50	+/-1%
RNG/40	40	6-100	+/-1%
RNG/50	50	12-200	+/-1%
RNG/75	75	20-40	+/-1%

Dimensions

Model Number	Thread Size BSP	L mm	Dia mm	Weight kg
RNG/25	1"	90.5	63.5	1.1
RNG/40	1 1/2"	116.7	76.2	1.7
RNG/50	2"	154.0	89.0	3.1
RNG/75	3"	200.0	120.0	10

The nominal K factor is based on water at 20°C
 Each flowmeter is individually calibrated on water and will have a unique K factor.

Contact our flow measurement specialists for advice on your application

Tel: 01922 645647

Tel: 01922 640326

e:mail sales@apolloflow.co.uk

website www.apolloflow.co.uk

Manufactured in the UK

Apollo Flowmeters, Charles Street, Walsall WS2 9LZ

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