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

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.
### 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

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Size mm</th>
<th>Flow Range m³/hour</th>
<th>Linearity</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNG/25</td>
<td>25</td>
<td>3-50</td>
<td>+/-1%</td>
</tr>
<tr>
<td>RNG/40</td>
<td>40</td>
<td>6-100</td>
<td>+/-1%</td>
</tr>
<tr>
<td>RNG/50</td>
<td>50</td>
<td>12-200</td>
<td>+/-1%</td>
</tr>
<tr>
<td>RNG/75</td>
<td>75</td>
<td>20-40</td>
<td>+/-1%</td>
</tr>
</tbody>
</table>

### Dimensions

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Thread Size</th>
<th>L mm</th>
<th>Dia mm</th>
<th>Weight kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNG/25</td>
<td>1&quot;</td>
<td>90.5</td>
<td>63.5</td>
<td>1.1</td>
</tr>
<tr>
<td>RNG/40</td>
<td>1 1/2&quot;</td>
<td>116.7</td>
<td>76.2</td>
<td>1.7</td>
</tr>
<tr>
<td>RNG/50</td>
<td>2&quot;</td>
<td>154.0</td>
<td>89.0</td>
<td>3.1</td>
</tr>
<tr>
<td>RNG/75</td>
<td>3&quot;</td>
<td>200.0</td>
<td>120.0</td>
<td>10</td>
</tr>
</tbody>
</table>

# 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

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