Mass flowmeter for ships fuel applications

- Best price-performance ratio
- High accuracy: 0.2% of actual flow
- Measured values: massflow, density, temperature
- Twin straight measuring tubes with optimised flow divider for minimum pressure loss
- Fully welded maintenance free measuring tubes in stainless steel
- No requirement for straight inlet/outlet sections
Technical data

Measuring system
Measuring principle Coriolis mass flow
Application range Mass flow and density measurement of liquid
Measured values Mass, density, temperature

Measuring accuracy
Measuring accuracy ± 0.2% of actual measured flow rate
Repeatability Better than 0.05%
Accuracy of density Typical 0.2%
Accuracy of temp. ± 1°C

Design / construction
Features Fully welded maintenance free sensor in stainless steel with twin straight measuring tubes
Options Available as modbus version or remote version

Operating conditions
Ambient temp. -40...+65°C
Max. medium temp. 150°C (≤ 10 bar)

Maximum flow rates [All instruments offered will be sized based on flow/process calculations]
Max. flow calculation examples (Viscosity 15 cSt)
S15: 3 200 kg/h (1 bar pressure drop)
S25: 14 000 kg/h (1 bar pressure drop)
S40: 45 000 kg/h (1 bar pressure drop)
S50: 110 000 kg/h (1 bar pressure drop)

Dimensions and weight

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th>Weight</th>
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<tbody>
<tr>
<td>A</td>
<td>B (DN25)</td>
</tr>
<tr>
<td>S15</td>
<td>101.6</td>
</tr>
<tr>
<td>S25</td>
<td>114.3</td>
</tr>
<tr>
<td>S40</td>
<td>168.3</td>
</tr>
<tr>
<td>S50</td>
<td>219.1</td>
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</tbody>
</table>

System options
The EcoMATE® software takes care of data acquisition, logging, calculations, monitoring and reporting.

Choose between one of these converters
Converter with modbus output signal: Converter with display for indication of flow data and counter:

Coriolis measuring principle
A Coriolis twin tube mass flowmeter consists of two measuring tubes 1 that are positioned either side of the drive coil.

Energised meter
When the meter is energised, the drive coil vibrates the measuring tubes 1 causing them to oscillate 2 and produce a sine wave 3. The sine wave is monitored by the two sensors.

Energised meter with process flow
When a fluid or gas passes through the tubes 1, the coriolis effect causes a phase shift 2 in the sine wave 3 that is detected by the two sensors. This phase shift is directly proportional to the mass flow. Density measurement is made by evaluation of the frequency of vibration and temperature measurement is made using a Pt500 sensor.