HySense QG100 / QG 110 Gear Flow Meter

The HySense QG range (formerly known as GFM) measuring system works accordingly to the positive displacement principle. The measuring accuracy is largely independent of the fluid viscosity and provides further measuring possibilities with high accuracy vs an axial turbine or similar. Low flow rates are easily measured with this design. The QG range is useful for accurate measurement of pump case drains or leakage flows or example.

Features

- Positive displacement Gear wheel volume flow rate sensor
- Output signal analog or frequency
- Broad viscosity range
- Direction detection and impulse doubling possible
- Optionally with Hydrotechnik ISDS
- High Temperature version available on request

Technical data

<table>
<thead>
<tr>
<th>Mounting orientation</th>
<th>arbitrary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage Ub</td>
<td>12 ... 24 VDC</td>
</tr>
<tr>
<td>Current consumption</td>
<td>15 mA (frequency) / 27 ... 31 mA (4 ... 20 mA)</td>
</tr>
<tr>
<td>Over-voltage protection</td>
<td>36 VDC</td>
</tr>
<tr>
<td>Response time</td>
<td>2 kHz (frequency) / 2.5 sec. (4 ... 20 mA)</td>
</tr>
<tr>
<td>Medium / environmental / storage temp.</td>
<td>-20 ... +120 °C / -20 ... +80 °C / -20 ... +85 °C</td>
</tr>
</tbody>
</table>

Options & Ordering Information with ISDS sensors

<table>
<thead>
<tr>
<th>Output signal</th>
<th>Measuring range</th>
<th>Geom. cog volume</th>
<th>Measuring connector</th>
<th>Allowed working pressure</th>
<th>Error limits</th>
<th>Weight</th>
<th>Order number</th>
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</thead>
<tbody>
<tr>
<td>QG 100 frequency (square wave)</td>
<td>0.05 ... 5</td>
<td>- 0.191</td>
<td>ISO228-G/4</td>
<td>630 63 9,100</td>
<td>± 0.5 %²</td>
<td>3,000</td>
<td>3143-02-S-35.030</td>
</tr>
<tr>
<td></td>
<td>0.2 ... 30</td>
<td>- 0.609</td>
<td>ISO228-G3/8&quot;</td>
<td>± 0.4 %²</td>
<td>9,000</td>
<td>3143-04-S-35.030</td>
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<tr>
<td></td>
<td>0.7 ... 70</td>
<td>- 2.222</td>
<td>ISO228-G/4&quot;</td>
<td>± 0.4 %²</td>
<td>9,000</td>
<td>3143-04-S-35.030</td>
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</tr>
<tr>
<td></td>
<td>3 ... 300</td>
<td>- 8.750</td>
<td>SAE flange 1¼&quot;</td>
<td>± 0.7 %²</td>
<td>32,440</td>
<td>3185-05-S-35.030</td>
<td></td>
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<tr>
<td>QG 110 Analogue 4 ... 20 mA</td>
<td>0.05 ... 5</td>
<td>- 0.191</td>
<td>ISO228-G/4</td>
<td>630 63 9,100</td>
<td>± 0.7 %³</td>
<td>3,110</td>
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<td>0.2 ... 30</td>
<td>- 0.609</td>
<td>ISO228-G3/8&quot;</td>
<td>± 0.6 %³</td>
<td>9,110</td>
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<td>0.2 ... 30</td>
<td>- 0.609</td>
<td>ISO228-G3/8&quot;</td>
<td>± 0.4 %²</td>
<td>4,075</td>
<td>3143-03-S-35.030</td>
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<td></td>
<td>0.7 ... 70</td>
<td>- 2.222</td>
<td>ISO228-G/4&quot;</td>
<td>± 0.4 %²</td>
<td>9,000</td>
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<td></td>
<td>3 ... 300</td>
<td>- 8.750</td>
<td>SAE flange 1¼&quot;</td>
<td>± 0.7 %²</td>
<td>32,330</td>
<td>3143-05-S-35.030</td>
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<td>QG 110 Analogue 4 ... 20 mA</td>
<td>0.05 ... 5</td>
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<td>4,185</td>
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² of current reading ³ of final value