OM SERIES SMALL CAPACITY HIGH PRESSURE METERS

FLOMEC® OM Series, Small Capacity, High Pressure Flow Meters provide volumetric measurement of low flow, clean liquids up to 5800 psi (400 bar). Suitable for applications including metering lubricants, chemicals, grease, additives, and other high viscosity fluids.

FEATURES / BENEFITS

• High accuracy and repeatability, direct volumetric reading
• No requirement for flow conditioning (straight pipe runs)
• Measures both high and low viscosity liquids
• Optional Exd I/IIB approval (ATEX, IECEx)
• High pressure rated up to 5580 psi (400 bar)

PRODUCT CONFIGURATION

PRODUCT IDENTIFIER
OM = Oval Gear Meter

METER SIZE
004 = 1/8" (4 mm), 0.26-9.5 GPH (1-36 L/hr)
006 = 1/4" (6 mm), 0.5-27 GPH (2-100 L/hr)
008 = 1/4" (6 mm), 4-145 GPH (15-550 L/hr)

BODY MATERIAL
H = High Pressure 316L SS

ROTOR MATERIAL / BEARING TYPE
00 = PPS (Not available for 300º F (150º C) meters) / No bearing (Available for OM008 only)
51 = Stainless Steel / Carbon Ceramic (Standard on OM004 & OM006, optional for OM008)
71 = Keishi cut Stainless Steel (For high viscosity liquids) / Carbon Ceramic (Available for OM008 only)

O-RING MATERIAL
1 = Viton™ 5º F min. (-15º C)
3 = Teflon encapsulated Viton™ 5º F min. (-15º C)
4 = Buna-N (Nitrile), -40º F minimum (-40º C)

MAXIMUM TEMPERATURE LIMIT
-2 = 250º F (120º C) max.
-3 = 300º F (150º C) max. (Hall Only) (includes SS terminal cover)
-5 = 250º F (120º C) max. (includes integral cooling fin)
-8 = 176º F (80º C) max. (meters with integral instruments, OM008 with PPS rotors)

PROCESS CONNECTIONS
1 = BSPP (G) female threaded (ISO 228)
2 = NPT female threaded
B = Bottom Entry Manifold (Intermediate Pressure Only)

CABLE ENTRIES
1 = M20 x 1.5 mm (M16 x 1.5 mm for R4 options)
6 = 3 x 16 mm drilled holes (for F instruments only)

INTEGRAL OPTIONS
___ = Combination Reed Switch and Hall Effect Sensor
SS = Stainless steel terminal cover
RS = Reed Switch only - to suit Intrinsically Safe installations
E1 = Explosion proof Exd IIB T3...T6 [IECEX & ATEX approved]
E2 = Explosion proof Exd IIB T3...T6 [IECEX & ATEX mines approved]
HR = High resolution Hall Effect output (Hall Effect only) (not available on 008 size) [OM004:11200ppL, OM006:4200ppL]
H1 = Explosion proof - Exd with HR Hi-Res. Hall option [IECEX & ATEX approved] (not available on 008 size)
R3 = Intrinsically Safe RT12 with all outputs (GRN housing) [IECEX & ATEX approved]
R3G = Intrinsically Safe RT12 backlit rate totalizer with all outputs (GRN Housing) [IECEX & ATEX approved] (with gallons calibration)*#
R4 = RT40 backlit rate totalizer with all outputs (Alloy housing with facia protector) [scaled pulse output, backlight]**
R4G = RT40 rate totalizer with backlit large digit LCD (Alloy housings with facia) (with gallons calibration)**
R5 = RT14 backlit rate totalizer with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight]**
R5G = RT14 backlit rate totalizer with all outputs (GRN Housing) (with gallons calibration)**
E18 = E018 backlit rate/tot, pulse, 4-20 mA, lin, HART (Al), Incl. Line Bushing [IECEX & ATEX approved]
E19 = E018 backlit rate/tot, pulse, 4-20 mA, lin, HART (SS), Incl. Line Bushing [IECEX & ATEX approved]
F18 = F018 backlit rate/tot, pulse out, 4-20mA, 10 pt lin, HART#
F19 = F018 Intrinsically Safe backlit rate/tot, pulse out, 4-20mA, 10 pt lin, HART [IECEX & ATEX approved]*#
F31 = F130 Intrinsically Safe 2 stage batch controller [IECEX & ATEX approved]*

---

*Temp code 5 required for integral instruments between 176ºF (80ºC) & 250ºF (120ºC)
*Temp code 8 required for integral instruments below 176ºF (80ºC)
*Option will de-rate meter pressure ratings by 20%
SPECIFICATIONS

<table>
<thead>
<tr>
<th>OM004H</th>
<th>OM006H</th>
<th>OM008H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Size:</td>
<td>1/8” (4 mm)</td>
<td>1/4” (6 mm)</td>
</tr>
<tr>
<td>Nominal Flow Range @ 3cP:</td>
<td>0.26-9.6 GPH (1-36 L/hr)</td>
<td>2.6-27 GPH (2-100 L/hr)</td>
</tr>
<tr>
<td>Accuracy:</td>
<td>± 1% of reading (± 0.2% of reading with optional RT14)</td>
<td></td>
</tr>
<tr>
<td>Repeatability:</td>
<td>Typically ± 0.03% of reading</td>
<td></td>
</tr>
<tr>
<td>Max. Pressure - High pressure meter (threaded):</td>
<td>5800 psi (400 bar)</td>
<td></td>
</tr>
<tr>
<td>Protection Class:</td>
<td>IP66/67 (NEMA 4X), optional EXd I/IIB T3...T6, Integral ancillaries can be supplied with I.S. (Intrinsically Safe)</td>
<td></td>
</tr>
<tr>
<td>Recommended Filtration:</td>
<td>200 mesh (75 μm)</td>
<td></td>
</tr>
<tr>
<td>Electrical:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Pulse Resolution:</td>
<td>Pulses / gallon (Pulses / L) - Nominal</td>
<td></td>
</tr>
<tr>
<td>Reed Switch:</td>
<td>10,600 (2,800)</td>
<td>3,975 (1,050)</td>
</tr>
<tr>
<td>Hall Effect:</td>
<td>10,600 (2,800)</td>
<td>3,975 (1,050)</td>
</tr>
<tr>
<td>High Resolution Hall Effect:</td>
<td>42,400 (11,200)</td>
<td>15,900 (4,200)</td>
</tr>
<tr>
<td>Quadrature Pulse (Not available with High Pressure):</td>
<td>10,600 (2,800)</td>
<td>3,975 (1,050)</td>
</tr>
<tr>
<td>Reed Switch Output:</td>
<td>30V (dc) x 200mA Max (Maximum thermal shock 18°F/min [10°C/min])</td>
<td></td>
</tr>
<tr>
<td>Hall Effect Output:</td>
<td>3 wire open collector, 5 - 24V (dc) max, 20mA max.</td>
<td></td>
</tr>
</tbody>
</table>

*Maximum flow reduces as viscosity increases, see flow de-rating guide.
Max recommended pressure drop is 14.5 psi (1 bar).
*When used to meter rate, at very low flow rates, the rate can jump, due to resolution (not accuracy).

APPLICATIONS

- Automotive
- Aviation
- Mining
- Power
- Chemical
- Pharmaceutical
- Food
- Paint
- Petroleum Industries
- Environmental

APPROVALS

- NEMA 4X
- IP66/67
- ATEX
- CE
- IECEx
- IEC

DIMENSIONS

All dimensions are ± .079” (±2 mm)

<table>
<thead>
<tr>
<th>OM004H</th>
<th>OM006H</th>
<th>OM008H</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2.91” (74 mm)</td>
<td>2.91” (74 mm)</td>
</tr>
<tr>
<td>B</td>
<td>2.67” (68 mm)</td>
<td>2.67” (68 mm)</td>
</tr>
<tr>
<td>C</td>
<td>1.97” (50 mm)</td>
<td>1.97” (50 mm)</td>
</tr>
<tr>
<td>D</td>
<td>M5 x 12</td>
<td>M5 x 12</td>
</tr>
<tr>
<td>E</td>
<td>0.49” (12.5 mm)</td>
<td>0.49” (12.5 mm)</td>
</tr>
<tr>
<td>F</td>
<td>2.36” (60 mm)</td>
<td>2.36” (60 mm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RT12 / RT14</th>
<th>RT40</th>
<th>COVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>2.44” (62 mm)</td>
<td>2.56” (65 mm)</td>
</tr>
</tbody>
</table>

**Service & Warranty:** For technical assistance, warranty replacement or repair contact your FLOMEC® or GPI® distributor:
In North or South America: 888-996-3837 / FLOMEC.net
Outside North or South America: +61 2 9540 4433 / FLOMEC.net

© 2019 Great Plains Industries, Inc. All Rights Reserved.