Flomec small capacity flowmeters provide precise volumetric measurement of small quantities of liquids or low flows found in a broad range of industries including automotive, aviation, mining, power, chemical, pharmaceutical, food, paint, petroleum & environmental. Applications include the metering of additives for fuel, consumer products, water treatment & flotation cells, corrosion inhibitors, catalysts, emulsifiers, oils, grease, fragrances, adhesives, solvents, ink & insecticides.

**Features / Benefits**
- High accuracy & repeatability, direct reading flowmeter
- No requirement for flow conditioning (straight pipe runs)
- Stainless Steel rotors (Optional PPS Rotor for OM008 meter)
- Measures high & low viscosity liquids
- Quadrature pulse output option & bi-directional flow
- Integral 4-20mA output option
- Optional Exd I/IIIB approval (ATEX, IECEx)
- PF option available for metering pulsating flows

**Meter selection**
- **Aluminium** meters are used for petroleum product including oils and grease, fuels and fuel oils.
- **Stainless steel** meters are for the chemical, cosmetic, food and pharmaceutical industries & water based liquids.
- **Blind pulse** meters are available with reed switch & Hall Effect outputs. Quadrature pulse & Integral 4-20mA outputs are optional.

**Integral instruments**
Flomec meter options include integral LCD totalisers, flow rate totalisers & batch controllers. These instruments provide monitoring & control outputs including 4-20mA, scaled pulse, alarms & batch control. Instruments include:
- BT LCD 5 digit reset, 8 digit cumulative totaliser.
- RT12 LCD 6 digit reset, cumulative totaliser & flow rate, analog and pulse outputs.
- RT40 LCD 6 digit reset, cumulative totaliser & flow rate. Backlit Display
- EB LCD 6 digit 2 stage batcher & cumulative totaliser.

(Instruments also available for remote mounting and with I.S. approvals)

**General specification**
- Flow rates: 0.5 ~ 550 litres / hr. (0.16~ 145 USgal/hr.) *
- Sizes: 4~8mm (1/8"~3/8" NB)
- Materials: Aluminium, 316 Stainless steel

* see also medium & large capacity data sheets for other size meters
# Specifications

<table>
<thead>
<tr>
<th>Model Prefix:</th>
<th>OM004 (1/8&quot;)</th>
<th>OM006 (1/4&quot;)</th>
<th>OM008 (3/8&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal size (inches)</td>
<td>4mm (1/8&quot;)</td>
<td>6mm (1/4&quot;)</td>
<td>8mm (3/8&quot;)</td>
</tr>
<tr>
<td>Flow range (L/min)</td>
<td>0.5 - 35</td>
<td>2 - 100</td>
<td>15 - 550</td>
</tr>
<tr>
<td>(GPH)</td>
<td>(0.13 - 9.5)</td>
<td>(0.5 - 27)</td>
<td>(4 - 145)</td>
</tr>
<tr>
<td>Accuracy @ 3cp</td>
<td>±1.5% of reading (accuracy is ±0.2% of reading with optional RT12 with non-linearity correction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeatability</td>
<td>Typically ± 0.03% of reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>-20°C ~ +120°C (-4°F ~ +250°F)</td>
<td>Refer to factory for lower temperature</td>
<td></td>
</tr>
<tr>
<td>Maximum pressure</td>
<td>700 bar (10,000 PSI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminium meters</td>
<td>15.7 (230°F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>316 stainless steel</td>
<td>34.3 (600°F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate press. SS meter</td>
<td>100 (1450)</td>
<td>100 (1450)</td>
<td>100 (1450)</td>
</tr>
<tr>
<td>High pressure module</td>
<td>400 (5800)</td>
<td>400 (5800)</td>
<td>400 (5800)</td>
</tr>
<tr>
<td>Electrical - for pulse meters (see below for optional outputs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output pulse resolution</td>
<td>Pules / litre (outsite US gallon) - nominal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reed switch</td>
<td>2800 (10600)</td>
<td>1050 (3975)</td>
<td>355 (1340)</td>
</tr>
<tr>
<td>Hall effect</td>
<td>2800 (10600)</td>
<td>1050 (3975)</td>
<td>710 (2690)</td>
</tr>
<tr>
<td>QP+ Quadrature Hall option</td>
<td>2800 (10600)</td>
<td>1050 (3975)</td>
<td>710 (2690)</td>
</tr>
<tr>
<td>PP+ Pulsating Flow (Hall Effect)</td>
<td>2800 (10600)</td>
<td>1050 (3975)</td>
<td>178 (672)</td>
</tr>
<tr>
<td>PP+ High resolution Hall effect</td>
<td>11200 (42400)</td>
<td>4200 (15960)</td>
<td>N/A</td>
</tr>
<tr>
<td>Reed switch output</td>
<td>30Vdc x 20mA max. (maximum thermal shock 10°C (18°F) / minute)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hall effect output (QPH)</td>
<td>3 W har coil, 5-24Vdc max., 20mA max.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional outputs</td>
<td>4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Physical**

| Protection class | IP65/67 (NEMA4X), optional Exd / IiiD T4/T6, integral ancillaries can be supplied I.G. (intrinsically safe) |
| Overall dimensions | Refer Below |
| Recommended filtration | 75 microns (200 mesh) |

* Maximum flow rate to be reduced as viscosity increases, see flow derating guide. Max recommended pressure drop is 100kpa (14.5 psi) |

**QP & PP Options are not available with High Pressure Meters**

## Over all Dimensions:

![Diagram showing all dimensions in millimeters ±2mm](image)

<table>
<thead>
<tr>
<th>OPTION</th>
<th>OM004</th>
<th>OM006</th>
<th>OM008</th>
</tr>
</thead>
<tbody>
<tr>
<td>EB10/RT12 GRN HOUSING</td>
<td>122</td>
<td>122</td>
<td>129</td>
</tr>
<tr>
<td>RT40/RT12 ALLOY HOUSING</td>
<td>125</td>
<td>125</td>
<td>132</td>
</tr>
<tr>
<td>BT</td>
<td>113</td>
<td>113</td>
<td>120</td>
</tr>
<tr>
<td>COVER</td>
<td>92</td>
<td>92</td>
<td>99</td>
</tr>
</tbody>
</table>

---

# Model Coding - Flomec Pulse Meters

## Meter Size

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Flow Rate Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM008</td>
<td>4mm (1/8&quot;)</td>
<td>0.5+6 L/hr, 0.13+5.5 GPM</td>
</tr>
<tr>
<td>CM006</td>
<td>6mm (1/4&quot;)</td>
<td>2.50+13 L/hr, 0.57+27 GPM</td>
</tr>
<tr>
<td>CM008</td>
<td>8mm (5/16&quot;)</td>
<td>15.56+1 L/hr, 4.14+5 GPM</td>
</tr>
</tbody>
</table>

## Body Material

- A: Aluminium
- S: 316 Stainless steel
- N: Intermediate Grade 316 SS (CM008N = CM008H = 100bar max)
- H: High pressure 316 SS (CM008NH = CM008NH = 400bar (6000psi) max)

## Rotor Material

- 0: PVF-Teflon Filled (Polyvinylfluoride Teflon) (Only available with CM008 size)
- 1: Stainless steel (All standard CM008 - CM008N) materials

## Bearing Type

- 0: No Bearing (PMI rotors only)
- 1: Ceramic (Stainless steel rotors only)

## O-Ring Material

1. Viton (standard): -40°C to 150°C
2. Polyurethane (WP): -40°C to 120°C
3. Teflon encapsulated xylan: -40°C to 150°C
4. Viton (high temp): -40°C to 250°C

## Temperature Limits

- -2: 120°C (248°F) (see note 1)
- -3: 150°C (302°F) max. (See note 2)
- -6: 120°C (248°F) max. (Includes integral cooling fins) see note 2
- -8: 80°C (180°F) max. (For CM008 with PVF rotors)

## Process Connections

- 1: BSP Female threaded
- 2: NPT Female threaded
- 3: Customer nominated

## Cable Entry

With 0/2/3 options

- 0: 3.5mm cable gland
- 1: 20 x 1.5mm
- 2: 1½” NPT

## Integral Options

- BS: B.S.
- SS: Stainless Steel Terminal Cover
- RS: Read Switch only - to suit anonymously safe installations (1S)

## Not Available with High Press Models

- WP: Quadrature purge (2 NPN phased output)
- E1: Explosion proof - Ex d IIB T4/G (Aluminium & stainless steel motors)
- E2: Explosion proof - Ex d IIB T4/G (stainless steel motors only)
- Q1: Exd with Quadrature purge and available with high press. motor
- Q0: Without quadrature purge and available with high press. motor
- H1: Universal high resolution hall effect output (only for CM008 & CM008H)
- H2: Exd with Hall Hi-res. Hall Option (CM008 and CM008H only)

## For Injection Moulding

- PF: Potentiating hall output (Hall effect output only)
- P1: Exd with Potentiating hall output
- B1: TTL digital interface with hall output
- B2: TTL digital interface with hall output

## Not Available with 008 High Press Models

- FI: Loop powered 4 - 20mA Analog output, 80°C (180°F) max.

## Model Numbers Example

- CM008: 8 mm (1/4") - 316SS
- CM006: 6 mm (1/8") - 316SS

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*(1) 120°C (250°F) rating for the pulse meter, 80°C (180°F) rating with BT, RT, EB & FI options. See temperature code 5 for higher temperature with BT, RT, & EB

*(2) Cooling fins fitted with LCD instruments for operation between 80°C - 120°C (180°C - 250°F)