OM SERIES MEDIUM CAPACITY (OVAL GEAR METERS)

The FLOMEC® OM Medium Capacity Meters are great for medium flow ranges and have the ability to handle a wide range of fluid viscosities.

FEATURES / BENEFITS

- High accuracy and repeatability, direct volumetric reading
- Measures high and low viscosity liquids
- Quadrature pulse output option and bi-directional flow
- Optional Exd I/IIB approval (ATEX, IECEx)
- No requirement for flow conditioning (straight pipe runs)
- Only two moving parts

PRODUCT IDENTIFIER

OM = Oval Gear Meter

METER SIZE

015 = 1/2” (15 mm), 0.26-10.6 GPM (1-40 L/min)
025 = 1” (25 mm), 2.6-40 GPM (10-150 L/min)
040 = 1-1/2” (40 mm), 4-66 GPM (15-250 L/min)
050 = 2” (50 mm), 8-118 GPM (30-450 L/min) with SS Rotors
050 = 2” (50 mm), 8-130 GPM (30-500 L/min) with PPS Rotors

BODY MATERIAL

A = Aluminum
M = Intermediate pressure aluminum meter (2000 psi [138 bar] max.) (OM025 only)
S = 316L Stainless Steel
N = Intermediate Pressure 316L SS (OM015-OM025N = 1450 psi [100 bar]) (OM040N-OM050N = 725 psi / 50 bar)

ROTOR MATERIAL / BEARING TYPE

00 = PPS (not available for 300º F [150º C] meters) / No bearing
10 = Keishi cut PPS (for high viscosity liquids) (not available for 300º F [150º C] meters) / No bearing
51 = Stainless Steel / Carbon Ceramic
71 = Keishi cut Stainless Steel (for high viscosity liquids) / Carbon Ceramic

O-RING MATERIAL

1 = FKM (Viton™) (standard for Alum.) 5º F minimum (-15º C)
3 = PTFE encapsulated FKM (Viton™)
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 Effect) (includes Stainless Steel terminal cover)
-5 = 250º F (120º C) max. (includes integral cooling fin)
-8 = 176º F (80º C) max. (meters with integral instruments)

PROCESS CONNECTIONS

0 = No fittings (Not available on 015 size)
1 = BSPP (G) female threaded (ISO 228)
2 = NPT female threaded
3 = Sanitary Fittings (are 1/2” (13 mm) larger than meter size)
4 = ANSI-150 RF Flanged
5 = ANSI-300 RF Flanged
6 = PN16 DIN Flanged

CABLE ENTRIES

1 = M20 x 1.5 mm (M16 x 1.5 mm for R4 option)
2 = 1/2 in. NPT
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 (Aluminum & Stainless meters) [IECEx & ATEX approved]
E2 = Explosion proof Exd I/IIB T3...T6 (stainless meters only) [IECEx & ATEX mines approved]
QP = Quadrature pulse (2 NPN phased outputs)
QPN = Quadrature pulse (2 NPN phased outputs) with Australian NZNMI approval for trade sale
Q1 = Explosion proof Exd (with quadrature pulse) [IECEx & ATEX approved]
Q1N = Explosion proof Exd (IECEx & ATEX) with Quadrature pulse with Australian NMI & NZ approval for trade sale (Not available on 015 size)
R3 = Intrinsically safe RT12 with all outputs (GRN housing) [IECEx & ATEX approved]**
R3G = RT12 Intrinsically Safe rate totalizer with all outputs (GRN Housing) [IECEx & ATEX approved] (with gallons calibration)**
R4 = RT40 rate totalizer with backlit large digit LCD (scalable 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)**
R5G = RT14 backlit rate totalizer with all outputs (GRN Housing) (with gallons calibration)**
E18 = E018 backlit rate/tot, pulse, 4-20mA, 10 point linearization, HART, aluminium body [IECEx & ATEX approved] (Not available with 015 size)
E19 = E018 backlit rate/tot, pulse, 4-20mA, 10 point linearization, HART, stainless steel body [IECEx & ATEX approved] (Not available with 015 size)
F18 = F018 backlit rate/tot, pulse, 4-20mA, 10 point linearization, HART#
F19 = F018 backlit rate/tot, pulse, 4-20mA, 10 point linearization, HART, Intrinsically safe [IECEx & ATEX approved]#
F31 = Intrinsically safe F130 2 stage batch controller [IECEx & ATEX approved]#

---<<<< OM 025 A S1 2 -5 2 1 R4

*Temp code 5 required for integral instruments between 176ºF (80ºC) & 250ºF (120ºC)
Temp code 8 required for integral instruments below 176ºF (80ºC) by 20%
SPECIFICATIONS

OM015 | OM025 | OM040 | OM050
---|---|---|---
Nominal Size: | 1/2" (13 mm) | 1" (25 mm) | 1 1/2" (38 mm) | 2" (51 mm)

*Flow Range:|
OM040: 0.26-10.6 GPM (1-40 L/min) & 4-66 GPM (15-250 L/min) & 8-118 GPM (30-450 L/min) (SS) & 8-130 GPM (30-500 L/min) (PPS)
OM050: 2.6-40 GPM (10-150 L/min) & 4-66 GPM (15-250 L/min) & 8-118 GPM (30-450 L/min) (SS) & 8-130 GPM (30-500 L/min) (PPS)
OM015: 2.6-40 GPM (10-150 L/min) & 4-66 GPM (15-250 L/min) & 8-118 GPM (30-450 L/min) (SS) & 8-130 GPM (30-500 L/min) (PPS)
OM025: 6-20 GPM (25-75 L/min) & 12-30 GPM (50-112 L/min) & 20-50 GPM (75-185 L/min) (SS) & 24-58 GPM (90-220 L/min) (PPS)

Accuracy @3cp: ± 0.5% of reading (accuracy is ± 0.2% of reading with optional RT14 with non-linearity correction)

Repeatability: Typically ± 0.03% of reading

Temperature Range: -40° F to +300° F (-40° C to +150° C) refer to factory for lower temperature

Pressure Rating (Threaded Meter):
- Aluminum: 990 psi (68 bar)
- 316 Stainless Steel: 990 psi (68 bar), 435 psi (30 bar), 285 psi (20 bar)

Pressure Rating (Mechanical Meter):
- Aluminum: 580 psi (40 bar)
- 316 Stainless Steel: 580 psi (40 bar), 435 psi (30 bar), 285 psi (20 bar)

Recommended Filtration: 100 mesh (150 μm)

Electrical:
- Output Pulse Resolution: Pulses / gallon (Pulses / L) - Nominal
  - Reed Switch: 318 (84) - 120 (27) - 53 (14) - 25 (6.5)
  - Hall Effect: 636 (168) - 405 (107) - 212 (56) - 99 (26)
  - OP - Quadrature Hall Option: 636 (168) - 204 (54) - 106 (28) - 49 (13)

Applications:
- Oils
- Fuel
- Diesel
- Truck Metering
- Bunker C Fuel Oil
- Chemical Additive Injection
- Batching
- Molasses
- Clean Fluids
- Oil-Based Paints
- Industrial Fluids
- Chemical Feed Lines

DIMENSIONS
All dimensions are ± .079 (±2 mm)

<table>
<thead>
<tr>
<th>Modular Fitting</th>
<th>OM015</th>
<th>OM025</th>
<th>OM040</th>
<th>OM050</th>
<th>OM050E</th>
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</thead>
<tbody>
<tr>
<td>A.N.S.I. 150</td>
<td>7.4&quot; (189 mm)</td>
<td>7.8&quot; (198 mm)</td>
<td>9.3&quot; (237 mm)</td>
<td>9.9&quot; (252 mm)</td>
<td>10.9&quot; (277 mm)</td>
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<tr>
<td>DIN1 150</td>
<td>7.4&quot; (189 mm)</td>
<td>7.8&quot; (198 mm)</td>
<td>9.3&quot; (237 mm)</td>
<td>9.9&quot; (252 mm)</td>
<td>10.9&quot; (277 mm)</td>
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<tr>
<td>B.S.P N.P.T.</td>
<td>4.3&quot; (110 mm)</td>
<td>5.4&quot; (137 mm)</td>
<td>6.9&quot; (176 mm)</td>
<td>7.4&quot; (186 mm)</td>
<td>8.3&quot; (212 mm)</td>
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<tr>
<td>RT12 / RT14 GRN Housing</td>
<td>6.0&quot; (154 mm)</td>
<td>5.8&quot; (148 mm)</td>
<td>6.6&quot; (168 mm)</td>
<td>6.5&quot; (165 mm)</td>
<td>7.0&quot; (203 mm)</td>
<td>7.6&quot; (194 mm)</td>
<td>8.6&quot; (218 mm)</td>
<td>10.5&quot; (268 mm)</td>
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<tr>
<td>RT40 Alloy Housing</td>
<td>6.2&quot; (157 mm)</td>
<td>5.9&quot; (151 mm)</td>
<td>6.7&quot; (171 mm)</td>
<td>6.6&quot; (168 mm)</td>
<td>8.1&quot; (206 mm)</td>
<td>7.8&quot; (197 mm)</td>
<td>8.7&quot; (221 mm)</td>
<td>10.7&quot; (271 mm)</td>
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<tr>
<td>Cover</td>
<td>4.2&quot; (106 mm)</td>
<td>3.9&quot; (100 mm)</td>
<td>4.7&quot; (123 mm)</td>
<td>4.6&quot; (117 mm)</td>
<td>6.1&quot; (155 mm)</td>
<td>5.7&quot; (146 mm)</td>
<td>6.7&quot; (170 mm)</td>
<td>8.6&quot; (220 mm)</td>
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RT40

APPROVALS
ATEX, IECEx, CE, NEMA 4X, IP66/67

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

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