



PRODUCT CONFIGURATION

PRODUCT IDENTIFIER **1**

OM = Oval Gear Meter

METER SIZE **2**

004 = 1/8" (4 mm), 0.26-9.5 GPH (1.0-36 L/hr)

006 = 1/4" (6 mm), 0.5-27 GPH (2-100 L/hr)

008 = 3/8" (8 mm), 4-145 GPH (15-550 L/hr)

BODY MATERIAL **3**

A = Aluminum

S = 316 Stainless Steel

N = Intermediate Pressure 316L SS (1450 PSI / 100 bar)

ROTOR MATERIAL / BEARING TYPE **4**

00 = PPS (Not available for 300° F (150° 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 **5**

1 = FKM (Viton™) -5° F minimum (-15° C)

3 = PTFE encapsulated FKM (Viton™) 5° F minimum (-15° C)

4 = Buna-N (Nitrile), -40° F minimum (-40° C)

MAXIMUM TEMPERATURE LIMIT **6**

-2 = 250° F (120° C) max.

-3 = 300° F (150° C) max. (Hall Effect)(Includes Stainless Steel terminal cover)

-5 = 250° F (120° C) max. (includes integral cooling fin)

-8 = 176° F (80° C) max. (meters with integral instruments, OM008 with PPS rotors)

PROCESS CONNECTIONS **7**

1 = BSPP (G) female threaded (ISO 228)

2 = NPT female threaded

B = Bottom entry manifold (SS body only)

CABLE ENTRIES **8**

1 = M20 x 1.5 mm (M16 x 1.5 mm for R4 options)

2 = 1/2" NPT

6 = 3 x 16mm drilled holes (for F instruments only)

OM SERIES SMALL CAPACITY (OVAL GEAR METERS)

The **FLOMEC® OM Small Capacity Oval Gear Meters** have a large flow range and offer the ability to handle a wide range of fluid viscosities with exceptional levels of repeatability.

FEATURES / BENEFITS

- High accuracy and repeatability, direct volumetric reading
- Measures high and low viscosity liquids
- No requirement for flow conditioning (straight pipe runs)
- Stainless Steel rotors (Optional PPS rotor for OM008 meter only)
- Quadrature pulse output option and bi-directional flow
- Optional Exd I/IB approval (ATEX, IECEx)
- Only two moving parts

INTEGRAL OPTIONS **9**

__ = 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 Steel meters) [IECEx & ATEX approved]

E2 = Explosion proof Exd I/IB T3...T6 (Stainless Steel meters only) [IECEx & ATEX mines approved]

QP = Quadrature pulse (2 NPN phased outputs)

Q1 = Explosion proof ~ Exd (with quadrature pulse) [IECEx & ATEX approved]

HR = High Resolution Hall Effect output (004 – 006 only)

H1 = Explosion proof ~ Exd with HR Hi-Res. Hall option (004-006 only)

R3 = RT12 Intrinsically Safe rate totalizer 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 (Alloy housings with facia)*#

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]#

E19 = E018 backlit rate/tot, pulse, 4-20mA, 10 point linearization, HART, stainless steel body [IECEx & ATEX approved]#

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]

*Temp code 5 required for integral instruments between 176°F (80°C) & 250°F (120°C)

#Temp code 8 required for integral instruments below 176°F (80°C)

SPECIFICATIONS

| | OM004 | OM006 | OM008 |
|--|--|-------------------------|-------------------------|
| Nominal Size: | 1/8" (4 mm) | 1/4" (6 mm) | 3/8" (8 mm) |
| Flow* Range: | 0.26-9.5 GPH (1.0-36 L/hr) | 0.5-27 GPH (2-100 L/hr) | 4-145 GPH (15-550 L/hr) |
| Accuracy* @ 3cp: | ± 1.0% 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) | | |
| Pressure Rating (Threaded Meter): | | | |
| Aluminum | 220 psi (15 bar) | | |
| 316 Stainless Steel | 495 psi (34 bar) | | |
| Intermediate Pressure Stainless Steel | 1450 psi (100 bar) | | |
| Recommended Filtration: | 200 mesh (75 µm) | | |

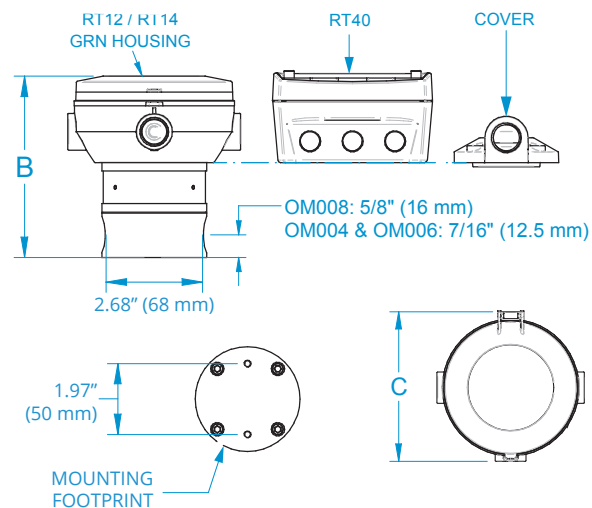
| | OM004 | OM006 | OM008 |
|----------------------------------|--|--------------|------------|
| Electrical: | | | |
| Output Pulse Resolution: | Pulses / gallon (Pulses / L) - Nominal | | |
| Reed Switch | 10600 (2800) | 3975 (1050) | 1345 (355) |
| Hall Effect | 10600 (2800) | 3975 (1050) | 2690 (710) |
| QP - Quadrature Hall option | 10600 (2800) | 3975 (1050) | 2690 (710) |
| HR - High Resolution Hall Effect | 42400 (11200) | 15900 (4200) | n/a |
| Reed Switch Output | 30V (dc) x 200mA max. [maximum thermal shock 18° F (10° C) / minute] | | |
| Hall Effect Output (NPN) | 3 wire open collector, 5-24V (dc) max., 20mA max. | | |
| Optional Outputs | 4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control | | |

*Maximum flow is to be reduced 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).

DIMENSIONS

| OPTION | B | | | C |
|-------------------------|---------------|---------------|---------------|---------------|
| | OM004 | OM006 | OM008 | — |
| RT12 / RT14 GRN HOUSING | 4.8" (122 mm) | 4.8" (122 mm) | 5.0" (129 mm) | 4.9" (124 mm) |
| RT40 | 4.9" (125 mm) | 4.9" (125 mm) | 5.2" (132 mm) | 3.8" (96 mm) |
| COVER | 3.6" (92 mm) | 3.6" (92 mm) | 3.9" (99 mm) | 2.8" (72 mm) |

*All dimensions are ± .079" (±2mm)



APPLICATIONS

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

APPROVALS



Instrumia

5 rue des vigneron
 44220 COUERON
 Tél. : 02 28 03 93 90
 sales@instrumia.com
 www.instrumia.com