



**OM SERIES LARGE CAPACITY  
(OVAL GEAR METERS)**

The FLOMEC® OM Large Capacity Oval Gear Meters have fitting sizes of 3 inches and 4 inches, and handle volumetric flow measurement of clean liquids used in a wide range of applications.

## FEATURES / BENEFITS

- High accuracy and repeatability, direct volumetric reading. Measures high and low viscosity liquids.
- Quadrature pulse output option and bi-directional flow.
- Blind 4-20mA output option.
- Optional Exd I/IB approval (ATEX, IECEx)
- No requirement for flow conditioning (straight pipe runs).
- Only two moving parts.

## PRODUCT CONFIGURATION

### PRODUCT IDENTIFIER **1**

**OM** = Oval Gear Meter

### METER SIZE **2**

**080** = 3 inch (76mm), 10-200 GPM (35-750 LPM)

**080E** = 3 inch (76mm), 13-260 GPM (50-1000 LPM)

**0100** = 4 inch (102mm), 20-400 GPM (75-1500 LPM)

### BODY MATERIAL **3**

**A** = Aluminum

**E** = Extended flow Aluminum version (OM080E only)

**S** = 316L Stainless Steel (OM080 only)

### ROTOR MATERIAL **4**

**0** = PPS - PTFE filled (Polyphenylene Sulfide) (Available for OM008 only)

**1** = Keishi cut PPS rotors for high viscosity liquids

**5** = Stainless Steel (OM080 only)

**7** = Keishi cut Stainless Steel rotors for high viscosity liquids (Available for OM080 only)

### BEARING TYPE **5**

**0** = No Bearing - PPS rotor option only

**1** = Carbon Ceramic (Standard with Stainless Steel rotors - OM080 only)

### O-RING MATERIAL **6**

**1** = FKM (Viton™) (standard for Alum.) -5° F minimum (-15° C)

**2** = EPR (Ethylene Propylene Rubber) - for ketones only

**3** = PTFE encapsulated FKM (Viton™) - (standard for SS)

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

### MAXIMUM TEMPERATURE LIMIT **7**

**-2** = 250° F (120° C) max. (reduced to 80° C when fitted with integral instruments)

**-3** = 300° F (150° C) max. (OM080 only)

(Hall Effect output only, not available with HP meters)

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

### PROCESS CONNECTIONS **8**

**1** = BSPP (G) female threaded

**2** = NPT female threaded

**4** = ANSI-150 RF Flanged

**6** = PN16 DIN Flanged

### CABLE ENTRIES **9**

**1** = M20 x 1.5 mm

**2** = 1/2" NPT

### INTEGRAL OPTIONS **10**

**\_\_\_** = Combination Reed Switch and Hall Effect Sensor

**G5** = [GG 500] Rate / Total Display with pulse out and optional Ex. Power [Local Display w/ Pulse (60°C)]

**G6** = [GX 500] Rate / Total Display w/ 4-20mA out [Local Display w/ 4-20mA (60°C)]

**G7** = [GA 500] Loop powered 4-20mA analog output [Local 4-20mA (60°C)]

**RS** = Reed Switch only - to suit Intrinsically safe installations

**E1** = Explosion proof Exd IIB T4/T6 (aluminum & stainless meters) [IECEx & ATEX mines approved]

**E2** = Explosion proof Exd I/IB T4/T6 (stainless meters only) [IECEx & ATEX mines approved]

**QP** = Quadrature pulse (2 NPN phased outputs) [not available with high press models]

**Q1** = Explosion proof Exd (with quadrature pulse, but not available with high pressure meter) [IECEx & ATEX approved]

**PF** = Pulsating flow option (Hall effect output only) [for injected combustion engines]

**P1** = Explosion proof - Exd with PF pulsating flow option [IECEx & ATEX approved]

**B2** = BT11 totalizer with pulse output [with scalable pulse output]

**B3** = Intrinsically safe BT11 with pulse output [IECEx & ATEX approved]

**R0** = RT12 rate totalizer with all outputs (Alloy housing) [scaled pulse, alarms, 4-20mA]

**R2** = RT12 rate totalizer with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA]

**R3** = Intrinsically safe RT12 with all outputs (GRN housing) [IECEx & ATEX approved]

**R4** = RT40 rate totalizer with backlit large digit LCD [scalable pulse output, backlight]

**E0** = EB10 batch controller [2 stage DC batcher & totalizer]

**1 2 3 4 5 6 7 8 9 10**

--->>>> **OM + 025 + A + 5 + 1 + 2 + -5 + 2 + 1 + G5 = SAMPLE**

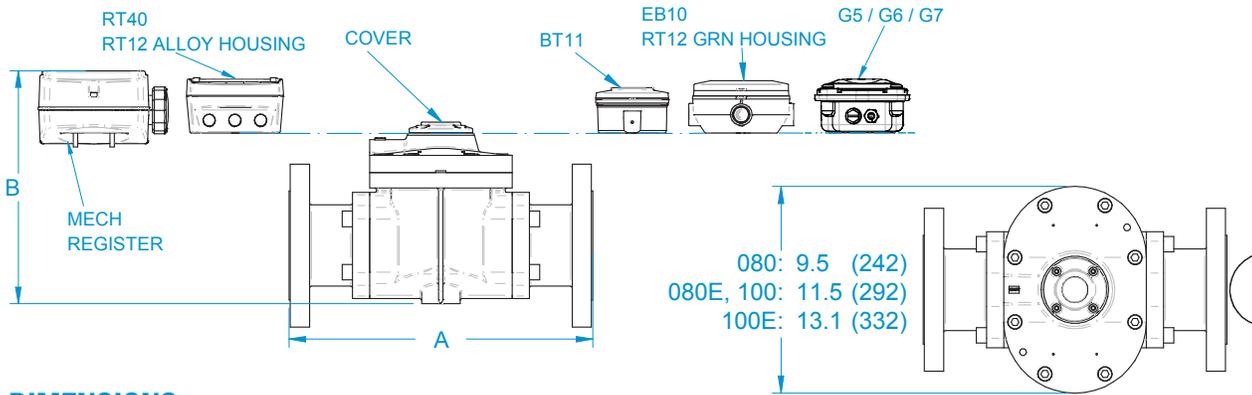
# SPECIFICATIONS

<b>Meter Size:</b>	OM080 - 3 inch (76mm)		
	OM080E - 3 inch (76mm)		
	OM0100 - 4 inch (102mm)		
<b>*Flow Range:</b>	OM080	10-200 GPM	35-75 LPM
	OM080E	13-260 GPM	50-1000 LPM
	OM0100	20-400 GPM	75-1500 LPM
<b>**Accuracy @3cp:</b>	± 0.5% of reading (accuracy is ± 2.0% of reading with optional RT12 with non-linearity correction)		
<b>Repeatability:</b>	Typically ± 3.0% of reading		
<b>Temperature Range:</b>	-4° F to +250° F (-20° C to +120° C) refer to factory for lower temperature		
<b>Pressure Rating Threaded Meter - PSI (bar):</b>	OM080   OM080E   OM0100		
Aluminum	175 (12)   175 (12)   145 (10)		
316 Stainless Steel	175 (12)   N/A   N/A		
<b>Recommended Filtration:</b>	40 mesh (350 microns)		

<b>Electrical:</b>	OM080   OM080E   OM0100		
<b>Output Pulse Resolution:</b>	Pulses / gallon (Pulses / litre) - Nominal		
Reed switch	10.00 (2.65)   5.68 (1.55)   4.15 (1.10)		
Hall effect	40.50 (10.70)   22.70 (6.0)   16.60 (4.40)		
Quadrature Hall option	20.00 (5.33)   11.40 (3.00)   8.30 (2.20)		
Reed switch output	30Vdc x 200mA max. [maximum thermal shock 18° F (10° C) / minute]		
Hall Effect output (NPN)	3 wire open collector, 5-24Vdc 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 100Kpa (14.5 psi).

\*\*Accuracy ±1% of reading with M-Series mechanical registers and accuracy ±0.5% of reading with V-Series mechanical register.



# DIMENSIONS

All dimensions are inches ± .079 (millimeters ±2mm)

MODULAR FITTING	A			CONFIGURATION	B			
	OM080	OM080E	OM0100		OM080A	OM080S	OM080E	OM0100
A.N.S.I. 150 DIN16 JIS 10K	13.9 (354)	15.0 (382)	15.3 (388)	EB10/RT12 GRN Housing	10.2 (260)	10.1 (257)	10.9 (277)	12.7 (322)
				BT11 Register	9.9 (252)	10.2 (259)	10.6 (269)	12.3 (314)
				RT40/RT12 Alloy Housing, G5 / G6 / G7	10.3 (264)	10.2 (259)	11.0 (281)	12.8 (326)
B.S.P N.P.T.	10.5 (266)	11.6 (294)	11.6 (294)	Cover	8.4 (213)	8.1 (206)	9.0 (229)	10.7 (274)
				Mech. Register	10.6 (270)	N/A	11.3 (288)	13.1 (333)

# 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

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

# APPROVALS



Wichita · Sydney · Mexico City

