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.
- Optional Exd I/IIB 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 (80mm), 10-200 GPM (35-750 LPM)

080E = 3 inch Extended Flow (80mm), 13-260 GPM (50-1000 LPM)

0100 = 4 inch (100mm), 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)
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)
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.
-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)
-8 = 80° C

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 in. 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/IIB 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]
B2 = BT11 totalizer with pulse output [with scalable pulse output]
B3 = Intrinsically safe BT11 with pulse output [IECEx & ATEX approved]
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]
R5 = RT14 option
E0 = EB10 batch controller [2 stage DC batcher & totalizer
F18 = F018 backlit rate/tot. pulse out, 4-20mA, 10 pt lin, HART
F19 = F018 Intrinisic Safe, backlit rate/tot. pulse out, 4-20mA, 10 pt lin, HART

1 2 3 4 5 6 7 8 9 10

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

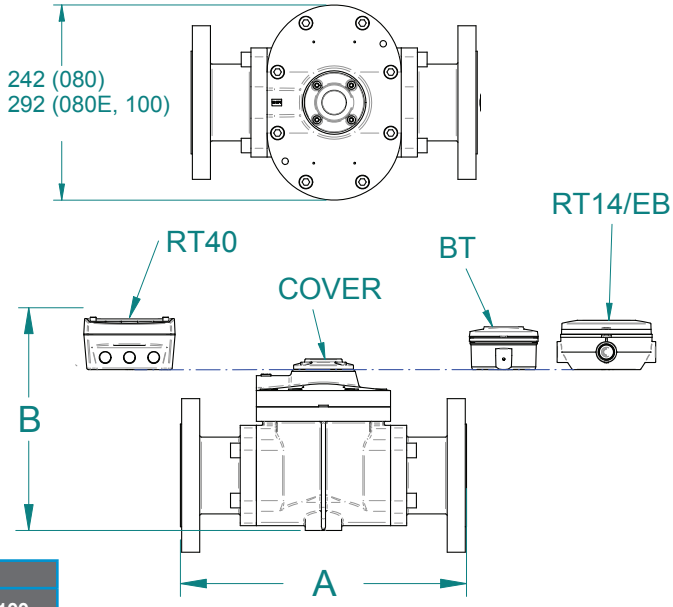
SPECIFICATIONS

	OM080	OM080E	OM100
Nominal Size:	3 in. [80mm]	3 in. [80mm]	4 in. [100mm]
Nominal Flow Range @ 3cP:	35-750 L/min	50-1000 L/min	75-1500 L/min
	10 - 200 USG/min	13 - 260 USG/min	20 - 400 USG/min
Accuracy:	±0.5% of reading (±0.2% of reading with optional RT14)		
Repeatability:	Typically ± 0.03% of reading		
Temperature Range:	-40˚C - +120˚C [-40˚F - +250˚F]		
Max. Pressure (Aluminum):	12 Bar [175 psi]	12 Bar [175 psi]	10 Bar [145 psi]
Max. Pressure (Stainless Steel):	12 Bar [175 psi]	n/a	n/a
Protection Class:	IP66/67 (NEMA4XI. Optional Exd I/118 T4/T6, integral ancillaries can be supplied I.S. (Intrinsically Safe)		
Recommended Filtration:	40 Mesh (350 Microns)		
Output Pulse Resolution - Pulse per Litre [Pulse per USG] - Nominal			

	OM080	OM080E	OM100
Reed Switch:	2.65 [10.0]	1.55 [5.68]	1.10 [4.15]
Hall Effect:	10.7 [40.5]	6.00 [22.7]	4.40 [8.30]
QP Quadrature Hall Effect:	5.33 [20.0]	3.00 [11.4]	2.20 [4.15]
Read Switch Output:	30Vdc x 200mA max. (maximum thermal shock 10oC [18oF]/minute)		
Hall Effect Output:	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		
	OM080	OM080E	OM0100
Flanged	13.9 (354)	15.0 (382)	15.3 (388)
Threaded	10.5 (266)	11.6 (294)	11.6 (294)

CONFIGURATION	B			
	OM080A	OM080S	OM080E	OM0100
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	10.3 (264)	10.2 (260)	11.0 (281)	12.8 (326)
COVER	8.4 (213)	8.1 (206)	9.0 (229)	10.7 (274)

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

APPROVALS

CE

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**