OM SERIES
SMALL CAPACITY

The **FLOMEC® Small Capacity OM Series Oval Gear** meters are well suited to measurement of very low flow rates of various additives, chemicals, fuels, lubricants, and purified waters. Exceptional accuracy and reliability can be obtained on clean liquids of almost any viscosity.

Particularly when flow rates are very low and the viscosity is high, small capacity OM-Series meters provide exceptional performance, while other technologies can provide disappointing results.

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/IIB approval (ATEX, IECEx)
- Only two moving parts

PRODUCT CONFIGURATION

1 PRODUCT IDENTIFIER
OM = Oval Gear Meter

2 METER SIZE
004 = 4 mm (⅛ inch), 1.0-36 L/hr (0.26-9.5 GPH)
006 = 6 mm (¼ inch), 2-100 L/hr (0.5-27 GPH)
008 = 8 mm (⅜ inch), 15-550 L/hr (4-145 GPH)

3 BODY MATERIAL
A = Aluminum
S = 316 Stainless Steel
N = Intermediate Pressure 316 L SS (100 bar / 1450 PSI)

4 ROTOR MATERIAL/BEARING TYPE
00 = PPS (Not available for 150°C (300°F) 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)

5 O-RING MATERIAL
1 = FKM (Viton™) -15°C minimum (5°F)
3 = PTFE encapsulated FKM (Viton™) -15°C minimum (5°F)
4 = Buna-N (Nitrile) -40°C minimum (-40°F)

6 MAXIMUM TEMPERATURE LIMIT
-2 = 120°C (250°F) max.
-3 = 150°C (300°F) max. (Hall Effect) (Includes SS terminal cover)
-5 = 120°C (250°F) max. (includes integral cooling fin)
-8 = 80°C (176°F) max. (meters with integral instruments) (OM008 with PPS rotors)

7 PROCESS CONNECTIONS
1 = BSPP (G) female threaded (ISO 228)
2 = NPT female threaded

8 CABLE ENTRIES
1 = M20 x 1.5 mm (M16 x 1.5 mm for R4 options)
2 = ½ inch NPT
6 = 3x16 mm drilled holes (for R7/F15/F18/F19/F31)

9 INTEGRAL OPTIONS
__ = Combination Reed Switch and Hall Effect Sensor
SS = SS terminal cover
RS = Reed Switch only - to suit intrinsically safe installations
E1 = Explosion proof Exd IIB T3-T6 (Al & SS meters) [IECEx & ATEX approved]
E2 = Explosion proof Exd I/IIB T3-T6 (SS meters only) [IECEx & ATEX mines approved]
FP = cFMus Approved, USA and Canada, Flameproof Class 1 Zone 1
QP = Quadrature pulse (2 NPN phased outputs) Recommended remote display: F115... (part #1431135)
Q1 = Combination of the E1 & QP Integral Options
HR = High Resolution Hall Effect output (004 – 006 only)
H1 = Combination of the E1 & HR Integral Options
R4 = RT40 backlit rate/tot in Al housing, requires cable entry option 1*#
R5 = RT14 backlit rate/tot with all outputs (GRN Housing)*#
R6 = RT14 IECEx/ATEX Intrinsically Safe rate/tot with 4-20mA and pulse outputs, in GRN housing*#
R7 = RT40 backlit rate/tot in GRN housing*#^
B11 = EB11 dual stage batch controller in GRN housing*#
E18 = E018 backlit rate/tot, pulse, 4-20mA, 10 point linearization, HART, Al body [IECEx & ATEX approved]#
E19 = E018 backlit rate/tot, pulse, 4-20mA, 10 point linearization, HART, SS body [IECEx & ATEX approved]#
F15 = F115 bi-directional flow rate/tot, 4-20mA and pulse outputs, in a GRN housing*#^
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]

	1	2	3	4	5	6	7	8	9
--->>>>	OM	006	A	51	1	-8	2	2	R5

**Temp code 5 required for integral instruments between 80°C (176°F) & 120°C (250°F)*
#Temp code 8 required for integral instruments below 80°C (176°F)
^Requires Cable Entry option 6

Wichita · Sydney
GREAT PLAINS INDUSTRIES GPI®

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SMALL CAPACITY

SPECIFICATIONS

Technology:		Oval Gear		
Accuracy (% of Reading):		±1.0% (±0.2% of reading with optional RT14 with non-linearity correction)		
Housing Material:		**OM004**	**OM006**	**OM008**
Line Sizes:		4 mm (⅛ in.)	6 mm (¼ in.)	8 mm (⅜ in.)
Flow Range:		1-36 L/hr (0.26-9.5 GPH)	2-100 L/hr (0.5-27 GPH)	15-550 L/hr (4-145 GPH)
Repeatability:		Typically ± 0.03% of reading		
Pressure Rating:	Aluminum	15 bar (220 psi)		
	316 Stainless Steel	34 bar (495 psi)		
	Intermediate Pressure Stainless Steel	100 bar (1450 psi)		
Operating Temperature:		-40°C to +150°C (-40°F to +300°F)		
Recommended Filtration:		75 µm (200 mesh)		
Pulse Outputs				
Output Pulse Resolution:		Pulses / L (Pulses / gallon) - Nominal		
Reed Switch:		2800 (10600)	2100 (7950)	355 (1345)
Hall Effect:		5600 (21200)	2100 (7950)	710 (2690)
QP - Quadrature Hall option:		2800 (10600)	1050 (3975)	710 (2690)
HR - High Resolution Hall Effect:		11200 (42400)	4200 (15900)	n/a
Reed Switch Output:		30V (dc) x 200mA max. [max. thermal shock 10°C (18°F) / 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		

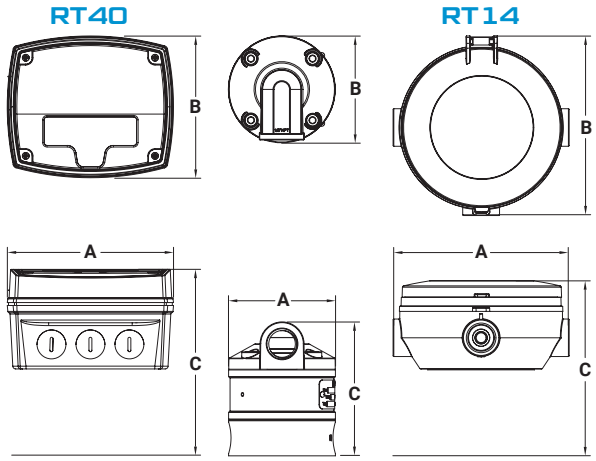
**Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max recommended pressure drop is 1 bar (14.5 psi).*
+When used to meter rate, at very low flow rates, the rate can jump, due to resolution (not accuracy).

APPROVALS / WARRANTY

ATEX IEC IECEx CE 2 YR METER WARRANTY

DIMENSIONS REFERENCE THREADED

	Dimension "A"	Dimension "B"	Dimension "C"
OM004	7.4 cm (2.9 in.)	7.4 cm (2.9 in.)	9.4 cm (3.7 in.)
OM004 RT14	12.2 cm (4.8 in.)	12.4 cm (4.9 in.)	11.9 cm (4.7 in.)
OM004 RT40	11.4 cm (4.5 in.)	9.9 cm (3.9 in.)	12.7 cm (5 in.)
OM006	7.4 cm (2.9 in.)	7.4 cm (2.9 in.)	9.4 cm (3.7 in.)
OM006 RT14	12.2 cm (4.8 in.)	12.4 cm (4.9 in.)	11.9 cm (4.7 in.)
OM006 RT40	11.4 cm (4.5 in.)	9.9 cm (3.9 in.)	12.7 cm (5 in.)
OM008	7.4 cm (2.9 in.)	7.4 cm (2.9 in.)	9.9 cm (3.9 in.)
OM008 RT14	12.2 cm (4.8 in.)	12.4 cm (4.9 in.)	12.2 cm (4.8 in.)
OM008 RT40	11.4 cm (4.5 in.)	9.9 cm (3.9 in.)	13.2 cm (5.2 in.)



APPLICATIONS (Typical application but not limited to)

- Fuel additive injection
- Fuel consumption measurements
- Diesel injector/pump test equipment
- Water treatment chemical dosing (flocculants, surfactants, biocides, etc.)
- Corrosion inhibitor dosing
- Demineralised / RO water dosing or dispensing
- Monitoring of oil or grease lubricants