OM SERIES
MEDIUM CAPACITY



The **FLOMEC® Medium Capacity OM-Series Oval Gear** meters are well suited to precise measurement of fuels, oils, solvents, alcohols, mildly aggressive chemicals, and various other clean industrial liquids.

Flow rates from 1 L/min to 450 L/min combined with low pressure drop, and various hazardous area certifications make the medium capacity OM-Series meters well suited to almost any liquid transfer or dispensing application whether pumped or gravity-fed.

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

1 PRODUCT IDENTIFIER
OM = Oval Gear Meter

2 METER SIZE
015 = 15 mm (½ in.), 1-40 L/min (0.26-10.6 GPM)
025 = 25 mm (1 in.), 10-150 L/min (2.6-40 GPM)
040 = 40 mm (1½ in.), 15-250 L/min (4-66 GPM) **050** = 50 mm (2 in.), 30-450 L/min (8-118 GPM) with SS Rotors
050 = 2 inch (50 mm), 30-500 L/min (8-130 GPM) with PPS Rotors

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

4 ROTOR MATERIAL/BEARING TYPE
00 = PPS [Not available for 150°C (300°F) meters] / No bearing
10 = Keishi cut PPS (for high viscosity liquids) [not available for 150°C (300°F) meters] / No bearing
51 = Stainless Steel / Carbon Ceramic
71 = Keishi cut Stainless Steel (For high viscosity liquids) / Carbon Ceramic

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
0 = No fittings (Not available on 015 size)
1 = BSPP (G) female threaded (ISO 228)
2 = NPT female threaded
3 = Sanitary Fittings (½ in. larger than meter size)
4 = ANSI-150 RF Flanged
5 = ANSI-300 RF Flanged
6 = PN16 DIN Flanged

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 = Stainless Steel 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)
QPN = Quadrature pulse (2 NPN phased outputs) with Australian NMI & NZ approval for trade sale (1, 1.5, and 2 inch only)
Q1 = Combination of the E1 & QP Integral Options
Q1N = Explosion Proof Exd (IECEx & ATEX) with Quadrature pulse with Australian NMI & NZ approval for trade sale (1, 1½, and 2 inch only)
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	025	A	51	2	-5	2	1	R4

**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®

OM SERIES
MEDIUM CAPACITY

SPECIFICATIONS

Technology:	Oval Gear			
Accuracy (% of Reading):	±0.5% (accuracy is ±0.2% with optional RT14 with non-linearity correction)			
Housing Material:	**OM015**	**OM025**	**OM040**	**OM050**
Line Sizes:	15 mm (½ in.)	25 mm (1 in.)	40 mm (1½ in.)	50 mm (2 in.)
Flow Range:	1-40 L/min (0.26-10.6 GPM)	10-150 L/min (2.6-40 GPM)	15-250 L/min (4-66 GPM)	SS 30-450 L/min (8-120 GPM) PPS 30-500 L/min (8-130 GPM)
Repeatability:	Typically ± 0.03% of reading			
Pressure Rating:				
Aluminum:	68 bar (990 PSI)	68 bar (990 PSI)	30 bar (435 PSI)	20 bar (285 PSI)
Intermediate Pressure Al:		138 bar (2000 PSI)		
316 Stainless Steel:	68 bar (990 PSI)	68 bar (990 PSI)	30 bar (435 PSI)	38 bar (550 PSI)
Intermediate Pressure SS:	100 bar (1450 PSI)	100 bar (1450 PSI)	50 bar (725 PSI)	50 bar (725 PSI)
Operating Temperature:	-40°C to +150°C (-40°F to +300°F) Refer to factory for lower temperature			
Recommended Filtration:	150 µm (100 mesh)			
Pulse Outputs				
Output Pulse Resolution:	Pulses / L (Pulses / gallon) - Nominal			
Reed Switch:	84 (318)	27 (102)	14 (53)	6.5 (25)
Hall Effect:	168 (636)	107 (405)	14 (53)	26 (99)
QP - Quadrature Hall option:	168 (636)	54 (204)	14 (53)	13 (49)
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).*

APPLICATIONS (Typical application but not limited to)

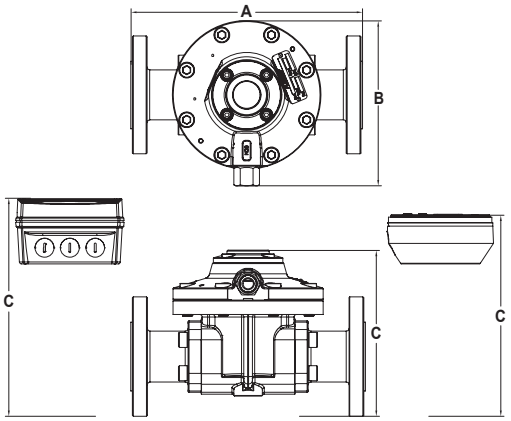
- Diesel fuel
- Petrol (gasoline) w/ or w/o ethanol content
- Biofuels
- Kerosene
- Glycols / Anti-Freeze
- Diesel Exhaust Fluid (DEF / Adblue®)
- Lubricating oils and greases
- Edible oils
- Solvents
- Resins and adhesives

DIMENSIONS REFERENCE THREADED

	Dimension "A"	Dimension "B"	Dimension "C"
OM015	11.2 cm (4.4 in.)	13 cm (5.1 in.)	9.9 cm (3.9 in.)
OM015 RT14	12.2 cm (4.8 in.)	13.7 cm (5.4 in.)	14 cm (5.5 in.)
OM015 RT40	11.4 cm (4.5 in.)	13 cm (5.1 in.)	15.5 cm (6.1 in.)

DIMENSIONS REFERENCE FLANGE

	Dimension "A"	Dimension "B"	Dimension "C"
OM025	23.6 cm (9.3 in.)	14 cm (5.5 in.)	14.2 cm (5.6 in.)
OM025 RT14	23.6 cm (9.3 in.)	14.5 cm (5.7 in.)	18.3 cm (7.2 in.)
OM025 RT40	23.6 cm (9.3 in.)	14 cm (5.5 in.)	19.8 cm (7.8 in.)
OM040	24.9 cm (9.8 in.)	17.8 cm (7 in.)	17.8 cm (7 in.)
OM040 RT14	24.9 cm (9.8 in.)	17.8 cm (7 in.)	21.6 cm (8.5 in.)
OM040 RT40	24.9 cm (9.8 in.)	17.8 cm (7 in.)	23.4 cm (9.2 in.)
OM050	27.7 cm (10.9 in.)	20.1 cm (7.9 in.)	19.6 cm (7.7 in.)
OM050 RT14	27.7 cm (10.9 in.)	20.1 cm (7.9 in.)	23.6 cm (9.3 in.)
OM050 RT40	27.7 cm (10.9 in.)	20.1 cm (7.9 in.)	25.1 cm (9.9 in.)



APPROVALS / WARRANTY

ATEX IEC IECEx CE 2 YR METER WARRANTY

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