



PRODUCT CONFIGURATION

OM SERIES SMALL CAPACITY HIGH PRESSURE METERS

FLAMEC® OM Series, Small Capacity, High Pressure Flow Meters provide volumetric measurement of low flow, clean liquids up to 5800 psi (400 bar). Suitable for applications including metering lubricants, chemicals, grease, additives, and other high viscosity fluids.

FEATURES / BENEFITS

- High accuracy and repeatability, direct volumetric reading
- No requirement for flow conditioning (straight pipe runs)
- Measures both high and low viscosity liquids
- Optional Exd I/IB approval (ATEX, IECEx)
- High pressure rated up to 5580 psi (400 bar)

PRODUCT IDENTIFIER **1**

OM = Oval Gear Meter

METER SIZE **2**

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

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

008 = 1/4" (6 mm), 4-145 GPH (15-550 L/hr)

BODY MATERIAL **3**

H = High Pressure 316L SS
5580 psi (400 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 = Viton™ 5° F min. (-15° C)

3 = Teflon encapsulated Viton™ 5° F min. (-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 Only) (includes SS 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 (Intermediate Pressure Only)

CABLE ENTRIES **8**

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

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

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 [IECEx & ATEX approved]

E2 = Explosion proof Exd I/IB T3...T6 [IECEx & ATEX mines approved]

HR = High resolution Hall Effect output (Hall Effect only) (not available on 008 size) [OM004:11200ppL, OM006:4200ppL]

H1 = Explosion proof - Exd with HR Hi-Res. Hall option [IECEx & ATEX approved] (not available on 008 size)

R3 = Intrinsically Safe RT12 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 backlit rate totalizer with all outputs (Alloy housing with facia protector) [scalable pulse output, backlight]*#

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) [scaled pulse, alarms, 4-20mA, backlight]*#

R5G = RT14 backlit rate totalizer with all outputs (GRN Housing) (with gallons calibration)*#

E0 = EB10 batch controller [2 stage DC batcher & totalizer] (GRN Housing)*#

E0G = EB10 batch controller [2 stage DC batcher & totalizer] (with gallons calibration) (GRN Housing)*#

E18 = E018 backlit rate/tot, pulse, 4-20 mA, lin, HART (AI), Incl. Line Bushing [IECEx & ATEX approved]*#

E19 = E018 backlit rate/tot, pulse, 4-20 mA, lin, HART (SS), Incl. Line Bushing [IECEx & ATEX approved]*#

F18 = F018 backlit rate/tot, pulse out, 4-20mA, 10 pt lin, HART#

F19 = F018 Intrinsically Safe backlit rate/tot, pulse out, 4-20mA, 10 pt lin, HART [IECEx & ATEX approved]*#

F31 = F130 Intrinsically Safe 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)

*Option will de-rate meter pressure ratings by 20%

1	2	3	4	5	6	7	8	9
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SPECIFICATIONS

	OM004	OM006	OM008H
Nominal Size:	1/8" (4 mm)	1/4" (6 mm)	1/4" (6 mm)
Nominal Flow* Range @ 3cP:	0.26-9.6 GPM (1 - 36 L/min)	2.6-27 GPM (2-100 L/min)	4-145 GPM (15-550 L/min)
Accuracy*:	± 1% of reading (± 0.2% of reading with optional RT14)		
Repeatability:	Typically ± 0.03% of reading		
Max. Pressure - High pressure meter (threaded):	5800 psi (400 bar)		
Protection Class:	IP66/67 (NEMA 4X), optional EXd I/IB T3...T6, Integral ancillaries can be supplied with I.S. (Intrinsically Safe)		
Recommended Filtration:	200 mesh (75 µm)		
Electrical:			
Output Pulse Resolution:	Pulses / gallon (Pulses / L) - Nominal		
Reed Switch:	10,600 (2,800)	3,975 (1,050)	1,345 (355)
Hall Effect:	10,600 (2,800)	3,975 (1,050)	2,690 (710)
High Resolution Hall Effect:	42,400 (11,200)	15,900 (4,200)	n/a
Quadrature Pulse (Not available with High Pressure):	10,600 (2,800)	3,975 (1,050)	n/a
Reed Switch Output:	30V (dc) x 200mA Max (Maximum thermal shock 18°F/min [10°C/min])		
Hall Effect Output:	3 wire open collector, 5 - 24V (dc) max, 20mA max.		

*Maximum flow reduces as viscosity increases, see flow de-rating guide.
Max recommended pressure drop is 14.5 psi (1 bar).

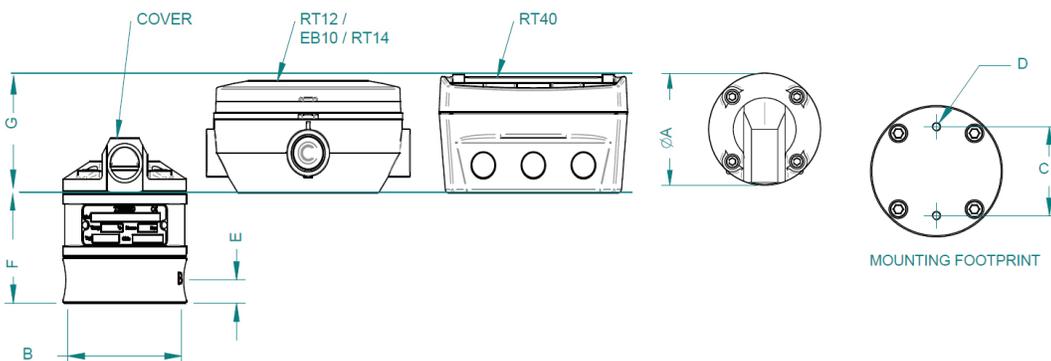
*When used to meter rate, at very low flow rates, the rate can jump, due to resolution (not accuracy).

DIMENSIONS

All dimensions are ± .079" (±2 mm)

	OM004H	OM006H	OM008H
A	2.91" (74 mm)	2.91" (74 mm)	3.93" (100 mm)
B	2.67" (68 mm)	2.67" (68 mm)	3.74" (95 mm)
C	1.97" (50 mm)	1.97" (50 mm)	2.36" (60 mm)
D	M5 x 12	M5 x 12	M5 x 12
E	0.49" (12.5 mm)	0.49" (12.5 mm)	3/8" (8 mm)
F	2.36" (60 mm)	2.36" (60 mm)	3.38" (86 mm)

	EB10 / RT12 / RT14	RT40	COVER
G	2.44" (62 mm)	2.56" (65 mm)	1.26" (32 mm)



APPLICATIONS

- Automotive
- Aviation
- Mining
- Power
- Chemical
- Pharmaceutical
- Food
- Paint
- Petroleum Industries
- Environmental

APPROVALS



NEMA
4X

IP66/67



APPROVALS Guide

	3-A Sanitary Standards, Inc. is an independent, not-for-profit corporation dedicated to advancing hygienic equipment design for the food, beverage, and pharmaceutical industries.
ATEX	European directive describing the equipment allowed in an environment with an explosive atmosphere.
	European Explosive Atmosphere Symbol
	Conformity European. Product has been reviewed to one or more of 21 European directives
	Factory Mutual Approved to US Standards.
	Factory Mutual Approved to Canadian and US standards
	Factory Mutual Approved to Canadian standards
	Federal Communication Commission
	International Electrotechnical Committee logo; use of the logo by an organization only shows an association with the IECEx, it does not infer any compliance with standards.
IPxx	Ingress Protection Code
NEMA	National Electrical Manufacturers Association
	European Directive on Restriction of Hazardous Substances
	Canadian Standards Association
	Canadian Standards Association certified to Canadian and US standards
	Manufacturers, regulators and consumers look to NSF International for the development of public health standards and certification programs that help protect the world's food, water, consumer products and environment.

This guide is a generic explanation of the approval marks listed throughout the catalog. See individual product pages for what approvals apply to what products. Approvals vary by product line and may be dependent on meter application.

For additional approval details, please visit gpi.net/approvals.

	Underwriters Laboratories listed to US standards
	Underwriters Laboratories listed to Canadian and US standards
	Underwriters Laboratories listed to Canadian standards
	European directive on waste electrical and electronic equipment (WEEE)