

OM HIGH PRESSURE (SMALL)



FLOMEC® OM Series, Small Capacity, High Pressure Flow Meters

provide volumetric measurement of low flow, clean liquids up to 400 bar. Suitable for applications including metering lubricants, chemicals, grease, additives, and other high viscosity fluids.

FEATURES/BENEFITS

- High accuracy and repeatability
- No requirement for flow conditioning
- Measures both high and low viscosity liquids
- Optional Exd I/IIB approval (ATEX, IECEx)
- High pressure rated up to 400 bar

PRODUCT CONFIGURATION

PRODUCT IDENTIFIER **1**

OM = Oval Gear Meter

METER SIZE **2**

- 004** = 1/8" (4 mm), 1-36 L/hr
- 006** = 1/4" (6 mm), 2-100 L/hr
- 008** = 1/4" (6 mm), 15-550 L/hr

BODY MATERIAL **3**

H = High Pressure 316L SS 400 bar

ROTOR MATERIAL /BEARING TYPE **4**

- 00** = PPS (Not available for 150° C meters) (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™ min -15° C
- 3** = Teflon encapsulated Viton™ min -15° C
- 4** = Buna-N (Nitrile), minimum -40° C

MAXIMUM TEMPERATURE LIMIT **6**

- 2** = 120° C max.
- 3*** = 150° C max. (Hall Only) (includes SS terminal cover)
- 5** = 120° C max. (includes integral cooling fin)
- 8** = 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/IIB T3...T6 [IECEx & ATEX mines approved]

HR = High resolution Hall Effect output (Hall Effect only) (not available on 008 size)

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

R4 = RT40 backlit rate totaliser with all outputs (Alloy housing with facia protector) [scalable pulse output, backlight]*#

R5 = RT14 backlit rate totaliser with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight]*#

R6 = Intrinsically safe RT14 backlit rate totaliser with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight][IECEx & ATEX approved]*#

R7 = RT40 backlit rate totaliser with all outputs (GRN housing) [scalable pulse output, backlight]*#

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]*#

1 2 3 4 5 6 7 8 9
 --->>>> OM 025 S 51 1 -8 1 1 R5

*Temp code 5 required for integral instruments between 80°C & 120°C

*Temp code 8 required for integral instruments below 80°C

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

SPECIFICATIONS

	OM004H	OM006H	OM008H
Nominal Size:	1/8" (4 mm)	1/4" (6 mm)	1/4" (6 mm)
Nominal Flow* Range @3cP:	0.26-9.6 GPH (1 - 36 L/hr)	2.6-27 GPH (2-100 L/hr)	4-145 GPH (15-550 L/hr)
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.		

APPLICATIONS

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

APPROVALS

*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)

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

