

Flomec small capacity flowmeters

Volumetric flow measurement of clean liquids or low flows used in automotive, aviation, mining, power, chemical, pharmaceutical, food, paint, petroleum industries and environmental applications.

For metering additives for fuel, consumer products, water treatment and flotation cells, corrosion inhibitors, catalysts, emulsifiers, oils, grease, fragrances, adhesives, solvents, ink and insecticides. .

Features / Benefits

- High accuracy and repeatability, direct volumetric reading
- No requirement for flow conditioning (straight pipe runs)
- Stainless Steel rotors (Optional PPS Rotor for OM008 meter)
- Measures high and low viscosity liquids
- Quadrature pulse output option and bi-directional flow
- Optional Exd I/IIIB approval (ATEX, IECEx)
- PF option available for metering pulsating flows
- Only two moving parts

Meter Selection

- **Aluminium** meters for petroleum products (oils and grease, fuels and fuel oils)
- **Stainless steel** meters for the chemical, cosmetic, food and pharmaceutical industries (water based liquids)
- **Blind pulse** meters available with reed switch and Hall Effect outputs. Optional Quadrature pulse and Integral 4-20mA outputs available

Integral Instruments

Options include integral LCD totalisers, flow rate totalisers and batch controllers (4-20mA, scaled pulse, alarms and batch control)

- BT LCD 5-digit reset, 8-digit cumulative totaliser
- RT12 LCD 6-digit reset, cumulative totaliser and flow rate, analog and pulse outputs
- RT40 LCD 6-digit reset, cumulative totaliser and flow rate. Backlit Display
- EB LCD 6-digit 2 stage batcher and cumulative totaliser

(Available for remote mounting and with I.S. approvals)

General Specification

Flow Rates: 0.16 - 145 US gal/hr. (0.5 - 550 litres / hr.)*

Sizes: 1/8" - 3/8" NB (4 - 8mm)

Materials: Aluminium, 316 Stainless steel

NMI Approved Meters

Meters 1" and above available with optional NMI pattern approval and quadrature pulse output

National Measurement Institute (NMI) Weights and Measures Approval – Australia

* See also [Medium and Large Capacity](#) data sheets for other size meters.

Specifications



Model Prefix:	OM004 (1/8")	OM006 (1/4")	OM008 (3/8")
Nominal size (inches):	1/8" (4mm)	1/4" (6mm)	3/8" (8mm)
*Flow range - (GPH):	(0.13-9.5)	(0.5-27)	(4-145)
- (LPH):	(0.5 - 36)	(2 - 100)	(15 - 550)
**Accuracy @ 3cp:	± 1% of reading (accuracy is ± 0.2% of reading with optional RT12 with non-linearity correction)		
Repeatability:	Typically ± 0.03% of reading		
Temperature range:	-4° F - +250° F (-20° C - +120° C), refer factory for lower temperature		
Maximum pressure:	PSI (bar) Threaded Meter		
Aluminium meters:	220 (15)		
316 stainless steel:	495 (34)		
Intermediate press. SS meter:	1450 (100)		
High pressure models:	5800 (400)		

Electrical - for pulse meters (see below for optional outputs)

Output pulse resolution:	Pulses / gallon (Pulses / litre) - nominal		
Reed switch:	10600 (2800)	3975 (1050)	1345 (355)
Hall effect:	10600 (2800)	3975 (1050)	2690 (710)
QP-Quadrature Hall option:	10600 (2800)	3975 (1050)	2690 (710)
PF-Pulsating Flow (Hall Effect):	10600 (2800)	3975 (1050)	675 (178)
HR-High resolution Hall effect:	42400 (11200)	15900 (4200)	N/A
Reed switch output:	30Vdc x 200mA max. [maximum thermal shock 18° F (10° C) / minute]		
Hall effect output (NPN):	3 wire open collector, 5-24Vdc max., 20mA max.		
Optional outputs:	4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control		

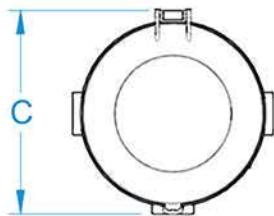
Physical

Protection class:	IP66/67 (NEMA4X), optional Exd I / IIB T4/T6, integral ancillaries can be supplied I.S. (intrinsically safe)
Overall dimensions:	Refer Below
Recommended filtration:	200 mesh (75 microns)

- * Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max. recommended pressure drop is 100Kpa. (14.5 psi)
- ** QP and PF Options are not available with High Pressure Meters

All dimensions are
inches ± .079 (millimeters ±2mm)

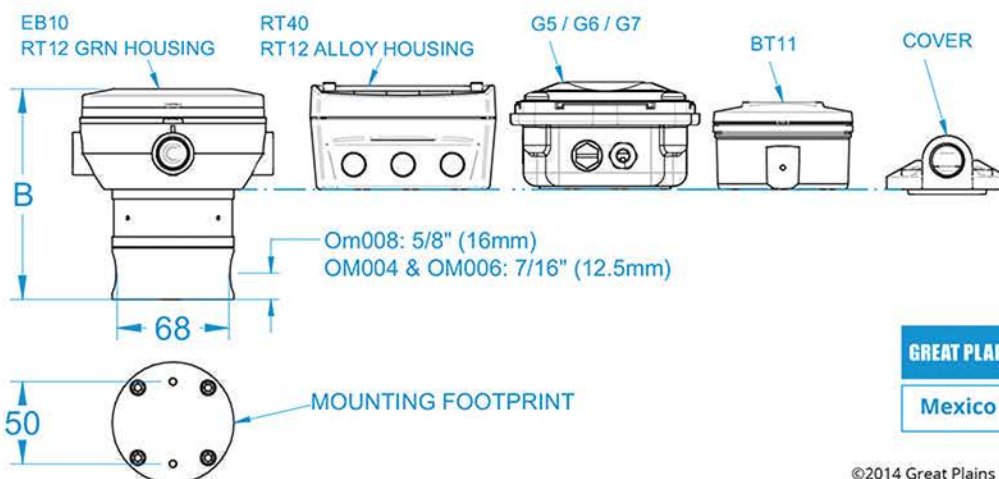
OPTION	B			C
	OM004	OM006	OM008	
EB10 / RT12 GRN HOUSING	4.8 / 122	4.8 / 122	5.0 / 129	4.9 / 124
RT40 / RT12 ALLOY HOUSING, G5 / G6 / G7	4.9 / 125	4.9 / 125	5.2 / 132	3.8 / 96
BT	4.4 / 113	4.4 / 113	4.7 / 120	3.7 / 94
COVER	3.6 / 92	3.6 / 92	3.9 / 99	2.8 / 72



Service & Warranty: For technical assistance, warranty replacement or repair contact your Flomec distributor or GPI:

In North or South America: **888-996-3837 / GPI.net**

Outside North or South America: **+61 2 9540 4433 / flomec.com.au**



MODEL CODING

FLOMEC™ OM™ Oval Gear Pulse Meter	
*Includes MG oval gear meters	
Model	Size
OM004™	1/8" (4mm) 0.5~36 L/hr 0.13~9.5 GPH
OM006™	1/4" (6mm) 2~100 L/hr 0.5~27 GPH
OM008™	3/8" (1/4" high press.) (8mm) 15~550 L/hr 4~145 GPH
Body material	
A	Aluminium
S	316L Stainless Steel
N	Intermediate pressure 316L SS meters (100 bar [1450psi])
H	High Pressure 316SS (400bar [5800psi], 008H has 1/4" connection)
Rotor material	
0	PPS - Teflon filled (Polyphenylene Sulfide) (not available for 150°C meters) only available in OM008
1	Keishi cut PPS rotors (for high viscosity liquids) (not available for 150°C meters) only available in OM008
5	Stainless steel (standard on OM004 & OM006, optional on other sizes)
7	Keishi cut stainless steel rotors (for high viscosity liquids) only available in OM008
Bearing type	
0	No Bearing (PPS rotors only) only available in OM008
1	Carbon Ceramic (stainless steel rotors only)
O-ring material	
1	Viton (standard) -15°C minimum (-5°F)
2	EPR (Ethylene Propylene Rubber) - for ketones only
3	Teflon encapsulated viton
4	Buna-N (Nitrile), -40°C minimum (-40°F)
Temperature limits	
2	120°C (250°F) max. (reduced to 80°C when fitted with integral instruments)
3	150°C (300°F) max. (Hall only, not avail. w/ HP meters) (SS terminal cover)
5	*120°C (250°F) max. (includes integral cooling fin)
8	80°C (176°F) max. (applies only to OM008 with PPS rotors)
Process connections	
1	BSPP (G) female threaded
2	NPT female threaded
Cable entries	
0	3~6mm cable gland or no cable entry (004~008 sizes & H bodies)
1	M20 x 1.5mm (M16 x 1.5mm for R0 and R4 options)
2	1/2" NPT
6	3 x 16mm drilled holes (for F instruments only)
Integral options	
	Nil
	SS Stainless steel terminal cover
	RS Reed Switch only - to suit Intrinsically safe installations
	E1 Explosionproof Exd IIB T4/T6 (aluminum & stainless meters)
	E2 Explosionproof Exd I/IIIB T4/T6 (stainless meters only)
	E3 ANZEx certified Exd IIB T4/T6
	E4 ANZEx certified Exd I/IIIB T4/T6 (mines approval, SS meters only)
	QP Quadrature pulse (2 NPN phased outputs)
	Q1 Explosionproof Exd (with quadrature pulse but n/a with HP meter)
	HR High resolution Hall effect output (Hall Effect only)
	H1 Explosionproof ~ Exd with HR Hi-res. Hall option
	PF Pulsating flow option (Hall effect output only)
	P1 Explosionproof ~ Exd with PF pulsating flow option
	B2 *BT11 totaliser with pulse output
	B3 *Intrinsically safe BT11 with pulse output
	R0 *RT12 rate totaliser with all outputs (Alloy housing)
	R0P *RT12 rate totaliser (Alloy housing with fascia protector)
	R2 *RT12 rate totaliser with all outputs (GRN housing)
	R3 *Intrinsically safe RT12 with all outputs (GRN housing)
	R4 *RT40 rate totaliser with backlit large digit LCD (Alloy housing)
	R4P *RT40 rate totaliser (Alloy housing with fascia protector)
	E0 *EB10 batch controller
	G5 GG500 display
	G6 GX500 display with 4-20mA transmitter
	G7 GA500 4-20mA transmitter
	E10 ATEX/IECEx Exd E110 backlit rate/tot, pulse, 4-20mA (Al)
	E11 ATEX/IECEx Exd E110 backlit rate/tot, pulse, 4-20mA (SS)
	E12 ATEX/IECEx Exd E112 backlit rate/tot, pulse, 4-20mA, 16 pt lin. (Al)
	E13 ATEX/IECEx Exd E112 backlit rate/tot, pulse, 4-20mA, 16 pt lin. (SS)
	E18 ATEX/IECEx Exd E018 backlit rate/tot, pulse, 4-20mA, lin, HART (Al)
	E19 ATEX/IECEx Exd E018 backlit rate/tot, pulse, 4-20mA, lin, HART (SS)
	F10 F110 backlit rate/tot, pulse out and 4-20mA
	F11 Intrin. safe F110 backlit rate/tot, pulse out and 4-20mA
	F12 F112 backlit rate/tot, pulse out, 4-20mA and 10 pt lin.
	F13 Intrin. safe F112 backlit rate/tot, pulse out, 4-20mA and 10 pt lin.
	F16 F116 backlit Differential/Sum indicator, pulse out and 4-20mA
	F18 F018 backlit rate/tot, pulse out, 4-20mA, 10 pt lin, HART
	F19 Intrin. Safe F018 backlit rate/tot, pulse, 4-20mA, 10 pt lin, HART
	SB Specific build requirement
Exclusive to B2,B3, G5, G6, G7 options	
IECEx & ATEX approved	
IECEx & ATEX mines approved	
ANZEx approved	
ANZEx mines approved	
not available with high press models	
IECEx & ATEX approved	
N/A FOR OM008	
N/A FOR OM008	
for injected combustion engines	
IECEx & ATEX approved	
with scaleable pulse output	
IECEx & ATEX approved	
scaled pulse, alarms, 4~20mA	
scaled pulse, alarms, 4~20mA	
scaled pulse, alarms, 4~20mA	
IECEx & ATEX approved	
scaleable pulse output, backlight	
scaleable pulse output, backlight	
2 stage DC batcher & totaliser	
IECEx & ATEX approved	
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IECEx & ATEX approved	

* Temp code 5 required with integral LCD instruments when operating temperature falls between 80°C (180°F)~120°C (250°F)

Model No.	Example								
OM006	S	5	1	1	-	5	1	1	R2