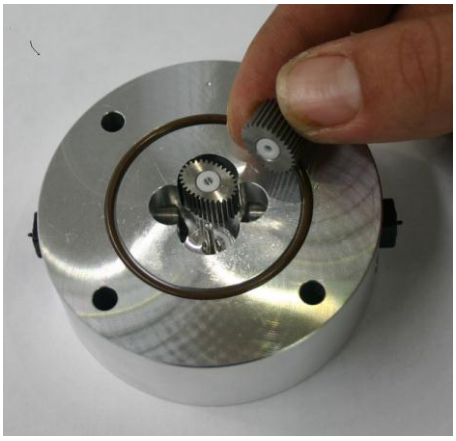
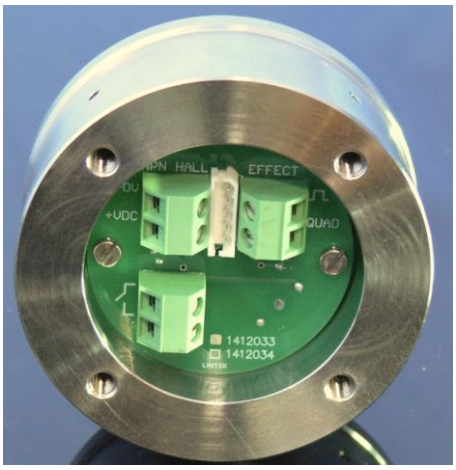
Flomec small capacity flowmeters provide precise volumetric measurement of small quantities of liquids or low flows found in a broad range of industries including automotive, aviation, mining, power, chemical, pharmaceutical, food, paint, petroleum & environmental. Applications include the metering of additives for fuel, consumer products, water treatment & flotation cells, corrosion inhibitors, catalysts, emulsifiers, oils, grease, fragrances, adhesives, solvents, ink & insecticides.

Features / Benefits



- High accuracy & repeatability, direct reading flowmeter
- No requirement for flow conditioning *(straight pipe runs)*
- Stainless Steel rotors (Optional PPS Rotor for OM008 meter)
- Measures high & low viscosity liquids
- Quadrature pulse output option & bi-directional flow
- Integral 4-20mA output option
- Optional Exd I/IIB approval (ATEX, IECEx)
- PF option available for metering pulsating flows

Meter selection



- ***Aluminium*** meters are used for petroleum product including oils and grease, fuels and fuel oils.
- ***Stainless steel*** meters are for the chemical, cosmetic, food and pharmaceutical industries & water based liquids.
- ***Blind pulse*** meters are available with reed switch & Hall Effect outputs. Quadrature pulse & Integral 4-20mA outputs are optional.

Integral instruments

Flomec meter options include integral LCD totalisers, flow rate totalisers & batch controllers. These instruments provide monitoring & control outputs including 4~20mA, scaled pulse, alarms & batch control. Instruments include:

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

(Instruments also available for remote mounting and with I.S. approvals)

General specification

Flow rates : 0.5 ~ 550 litres / hr. (0.16~ 145 USgal/hr.) *
Sizes : 4~8mm (1/8”~3/8” NB)
Materials : Aluminium, 316 Stainless steel

** see also medium& large capacity data sheets for other size meters*

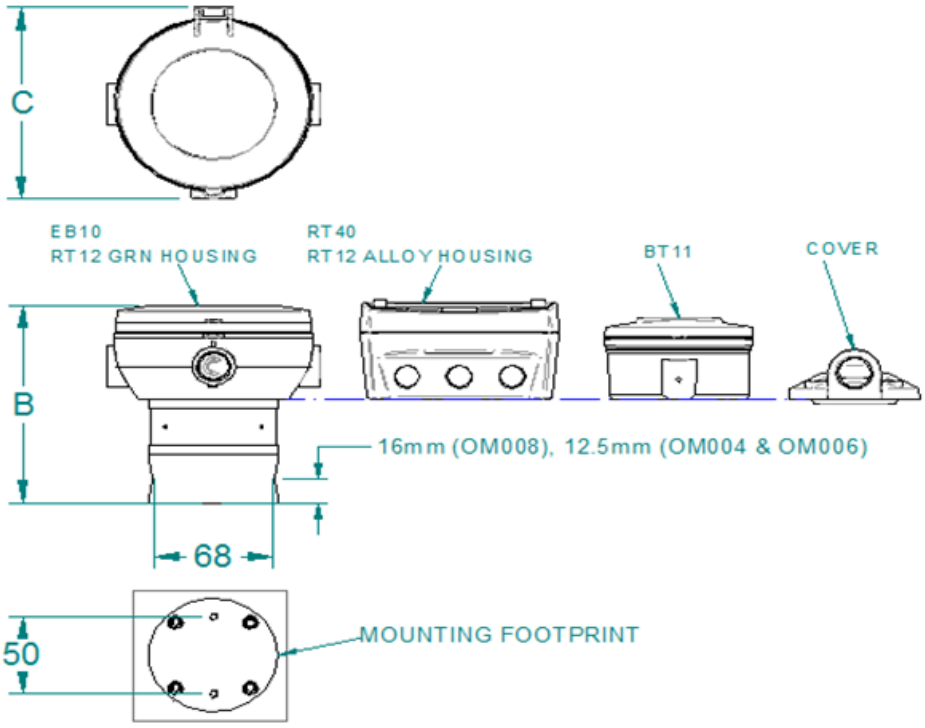
Specifications

Model Prefix:	OM004 (1/8")	OM006 (1/4")	OM008 (3/8")
Nominal size (inches):	4mm (1/8")	6mm (1/4")	8mm (3/8")
*Flow range - (LPH)	(0.5 ~ 36)	(2 ~ 100)	(15 ~ 550)
- (GPH)	(0.13~9.5)	(0.5~27)	(4~145)
**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	-20°C ~ +120°C (-4°F ~ +250°F), refer factory for lower temperature		
Maximum pressure	(Threaded meters)bar (PSI)		
aluminium meters	15 (220)		
316 stainless steel	34 (495)		
Intermediate press. SS meter	100 (1450)	100 (1450)	100 (1450)
high pressure models	400 (5800)	400 (5800)	400 (5800)
Electrical - for pulse meters (see below for optional outputs)			
Output pulse resolution	pulses / litre (pulses / US gallon) - nominal		
Reed switch	2800 (10600)	1050 (3975)	355 (1345)
Hall effect	2800 (10600)	1050 (3975)	710 (2690)
QP-Quadrature Hall option	2800 (10600)	1050 (3975)	710 (2690)
PF-Pulsating Flow (Hall Effect)	2800 (10600)	1050 (3975)	178 (675)
HR-High resolution Hall effect	11200 (42400)	4200 (15900)	N/A
Reed switch output	30Vdc x 200mA max. (maximum thermal shock 10°C (18°F) / 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	75 microns (200 mesh)		

* Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max. recommanded pressure drop is 100Kpa. (14.5 psi).

** QP & PF Options are not available with High Pressure Meters

Over all Dimensions:



ALL DIMENSIONS IN MILLIMETERS ±2mm

	B	B	B	C
OPTION	OM004	OM006	OM008	
EB10/RT12 GRN HOUSING	122	122	129	124
RT40/RT12 ALLOY HOUSING	125	125	132	96
BT	113	113	120	94
COVER	92	92	99	72

Model Coding - Flomec Pulse Meters

Meter Size

OM004	4mm (1/8")	0.5-36 L/hr	0.13-9.5 GPH
OM006	6mm (1/4")	2-100 L/hr	0.5-27 GPH
OM008	8mm (3/8")	15-550 L/hr	4-145 GPH

Body material

A	Aluminum
S	316 stainless steel
N	Intermediate press. 316 SS meter (OM004N ~ OM008N = 100bar max.)
H	High pressure 316 SS (OM004H ~ OM008H = 400bar [5800psi] max.)

Rotor material

0	PPS*-Teflon Filled (Polyphenylene Sulfide)* Only available with OM008 size
5	Stainless steel (all standard OM004 ~ OM008 meters)
7	Keishi cutting of stainless steel rotors (for high viscosity liquids) (Only available with 008 size)

Bearing type

0	No Bearing-PPS rotors only
1	Carbon-Ceramic (Stainless steel rotors only)

O-ring material

1	Viton (standard) -15ºC (5ºF) minimum
2	Ethylene Propylene Rubber (EPR); -40~+120ºC (-40~+250ºF)
3	Teflon encapsulated viton - application specific -15ºC minimum
4	Buna-N (Nitrile) -40~+100ºC (-40~+212ºF)

Temperature limits

-	2	120ºC (250ºF) - see note 1
-	3	*150 ºC (300ºF) max. - (Hall Effect output only); O-Ring code 1 or 3
-	5	*120 ºC (250ºF) max. (Includes integral cooling fin) see note 2
-	8	*80 ºC (180ºF) max. (For OM008 with PPS rotors)

Process connections

1	BSP female threaded
2	NPT female threaded
9	Customer nominated

Cable entries

with B2/B3 options	0	3~6mm cable gland
	1	M20 x 1.5mm
	2	1/2" NPT

Integral options

	00	Nil
	SS	Stainless Steel Terminal Cover
	RS	Reed Switch only -to suit Intrinsically safe installations (I.S)
Not available with high press models	QP	Quadrature pulse (2 NPN Phased outputs)
IECEX & ATEX approved	E1	Explosion proof ~ Exd IIB T4/T6 (Aluminium & stainless meters)
IECEX & ATEX mines approved	E2	Explosion proof ~ Exd I/IIB T4/T6 (stainless meters only)
IECEX & ATEX approved	Q1	Exd with Quadrature pulse (not available with high press. meter)
OM004: 11200ppL,OM006: 4200ppL	HR	High resolution hall effect output (only for OM004 & 006)
IECEX & ATEX approved	H1	Exd with HR Hi-res. Hall Option.(OM004 and OM006 only)
for injected combustion engines	PF	Pulsating flow option (hall effect output only)
IECEX & ATEX approved	P1	Exd with PF pulsating flow option.
with scaleable pulse output	B2	BT11 dual totaliser with pulse output
IECEX & ATEX approved	B3	Intrinsically safe BT11 (I.S.)
Scaled pulse, alarm, 4 ~ 20mA	R0	RT12 Flow Rate Totaliser with all outputs (Alloy housing)
Scaled pulse, alarm, 4 ~ 20mA	R2	RT12 Flow Rate Totaliser with all outputs (GRN housing)
IECEX & ATEX approved	R3	Intrinsically safe RT12 (I.S.)(GRN housing)
Scaled pulse + Backlighting	R4	RT40 large LCD flow rate totaliser (Alloy housing)
2 stage DC batcher and totaliser	E0	EB10 batch controller
Not available with 008 High Press models	FI	Loop powered 4 ~ 20mA analog output; 80ºC (180ºF) max.
	A1	Exd with Loop powered 4-20mA Analogue Output. 80ºC (180ºF) max.
	FH	High resolution hall output with FI option (only for OM004 & 006)
	SB	Specific build requirement

Model No. Example

OM006	s	5	1	1	-	5	1	1	R2

*(1) 120ºC (250ºF) rating for the pulse meter, 80ºC (180ºF) rating with BT, RT, EB & FI options.
See temperature code 5 for higher temperature with BT, RT, & EB
*(2) Cooling fin is fitted with LCD instruments for operation between 80~120ºC (180~250ºF)

Recommended Strainers

ST006S1	6 mm (1/4")-316SS
ST008S1	8 mm (3/8")-316SS