

**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:

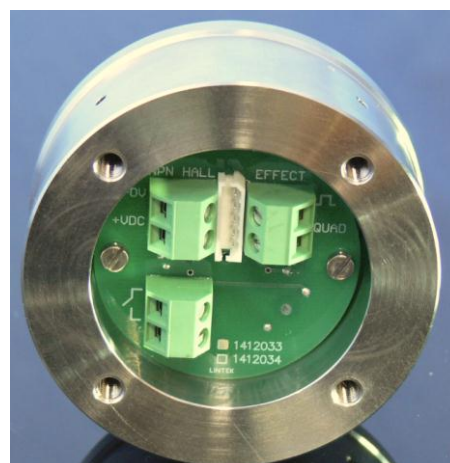
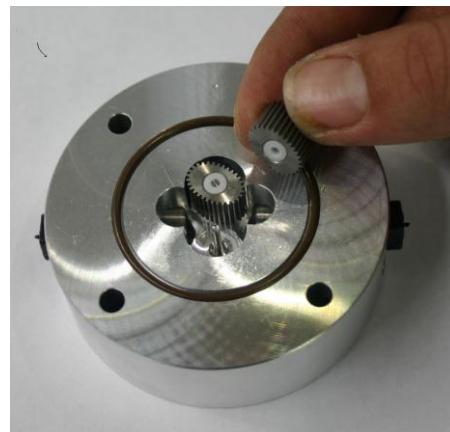
- BT LCD 5 digit reset, 8 digit cumulative totaliser.
- RT12 LCD 6 digit reset, cumulative totaliser & flow rate, analog and pulse outputs.
- RT40 LCD 6 digit reset, cumulative totaliser & flow rate. Backlit Display
- EB LCD 6 digit 2 stage batcher & cumulative totaliser.

(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

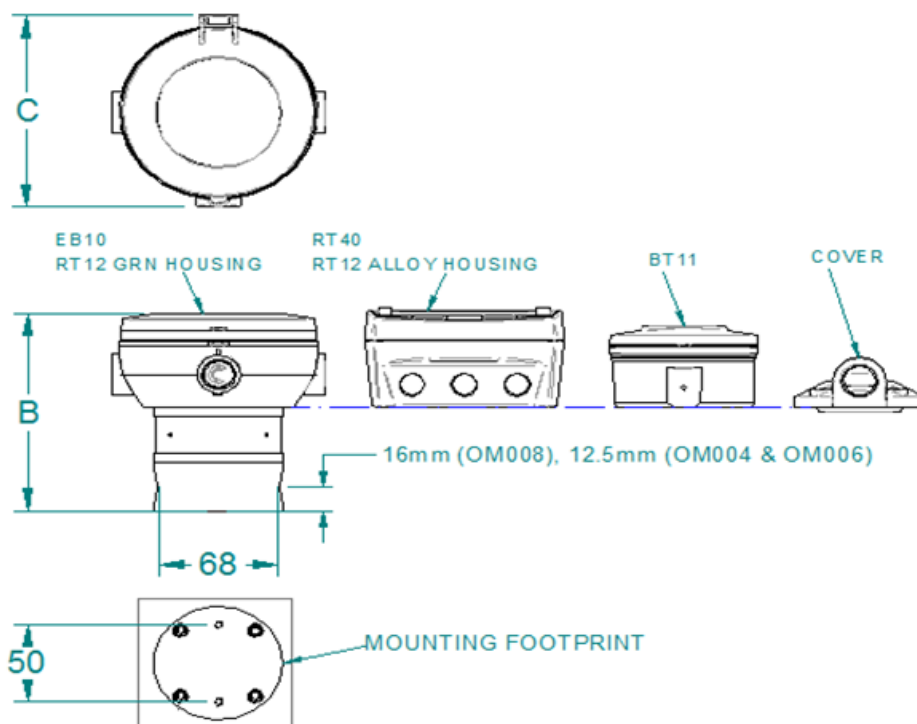
\* see also **medium& large capacity** data sheets for other size meters



## 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)
<b>Electrical</b> - 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		
<b>Physical</b>			
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. recommended 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

OPTION	B	B	B	C
	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 ) -15°C (5°F) minimum
2	Ethylene Propylene Rubber (EPR); -40~+120°C ( -40~+250°F )
3	Teflon encapsulated viton - application specific -15°C minimum
4	Buna-N ( Nitrile ) -40~+100°C ( -40~+212°F )

#### Temperature limits

2	120°C ( 250°F ) - see note 1
3	*150 °C (300°F) max. - (Hall Effect output only ); O-Ring code 1 or 3
5	*120 °C (250°F) max. (Includes integral cooling fin) see note 2
8	*80 °C (180°F) 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/IB 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
	FI	Loop powered 4 ~ 20mA analog output; 80°C (180°F) max.
Not available with 008 High Press models	A1	Exd with Loop powered 4-20mA Analogue Output. 80°C (180°F) 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
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\*(1) 120°C (250°F) rating for the pulse meter, 80°C (180°F) 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 80~120°C (180~250°F)



### Recommended Strainers

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