

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
- Measures high & low viscosity liquids
- Quadrature pulse output option & bi-directional flow

Meter selection

- **Aluminum** meters are used for petroleum products 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 & open collector outputs. Quadrature pulse 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.
- RT LCD 6 digit reset, cumulative totaliser & flow rate.
- EB LCD 6 digit 2 stage batcher & cumulative totaliser.

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

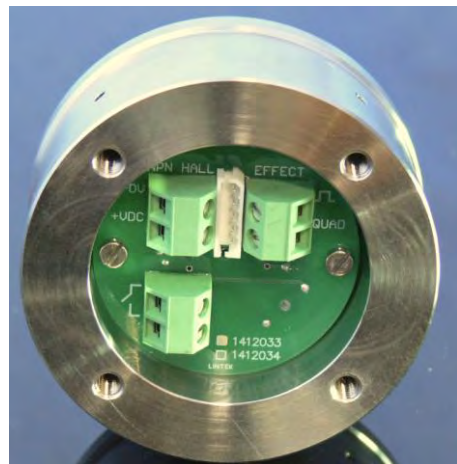
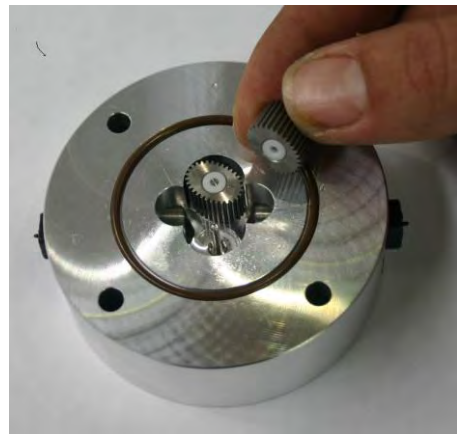
General specification

Flow rates : 0.5 ~ 550 litres / hr. (0.16~ 145 USgal/hr) *

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

Materials : Aluminum or 316 Stainless steel

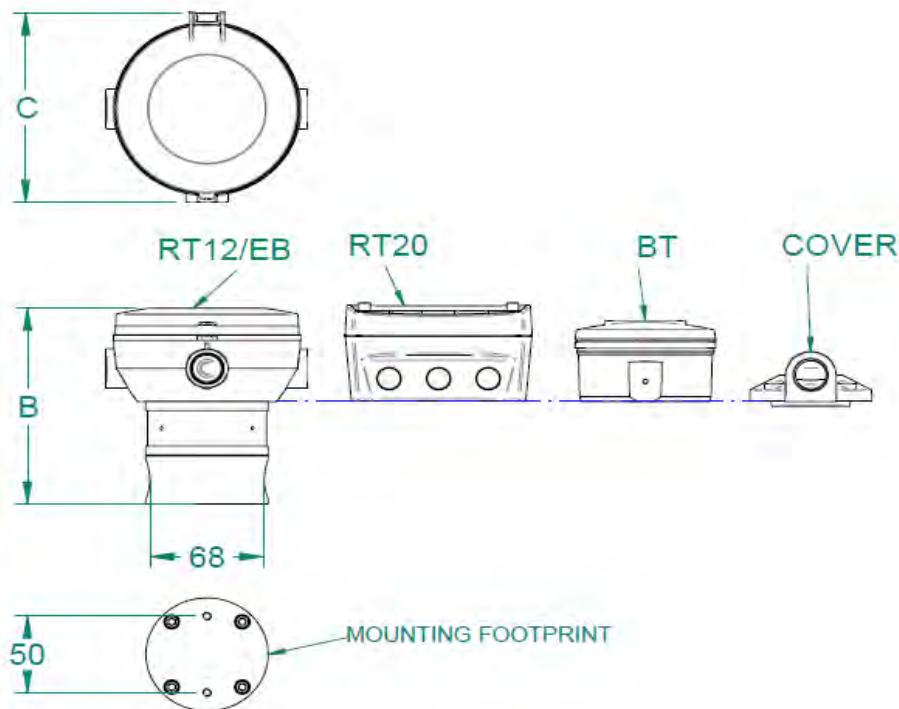
* see also *medium & large capacity* data sheets for other size meters



Specifications

Nominal size (inches):	4mm (1/8")	6mm (1/4")	8mm (3/8")/ high press 6mm(1/4")
*Flow range - (LPH) litres/min	(0.5 ~ 36)	(2 ~ 100)	(15 ~ 550)
- (GPH) US gal/min	(0.13~9.5)	(0.5~27)	(4~145)
**Accuracy @ 3cp	± 1% of reading		
Repeatability	typically ± 0.03% of reading (accuracy is ± 0.2% of reading with optional RT12 with non-linearity correction)		
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 (500)		
Intermediate press. SS meter	100 (1500)	100 (1500)	100 (1500)
high pressure models	400 (5880)	400 (5580)	400 (5580)
Electrical - for pulse meters (see below for optional outputs)			
Output pulse resolution	pulses / litre (pulses / US gallon) - nominal		
Reed switch	2800 (10600)	1050 (3975)	354 (1340)
Hall effect	2800 (10600)	1050 (3975)	708 (2680)
Quadrature Hall option	2800 (10600)	1050 (3975)	708 (2680)
High resolution Hall effect	11200 (42392)	4200 (15897)	-
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)		
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. (15 psi).			
* Maximum flow may be increased by 10% for intermittent refuelling periods.			

Over all Dimensions:



ALL DIMENSIONS IN MILLIMETERS ±2mm

	B	B	B	C
OPTION	OM004	OM006	OM008	
RT12/EB	122	122	129	124
RT20	125	125	132	96
BT	113	113	120	94
COVER	92	92	99	72

Model Coding - Flomec Pulse Meters



Meter size

OM 004	4mm (1/8")	0.5-36 L/hr	0.13-9.5 GPH
OM 006	6mm (1/4")	2-100 L/hr	0.5-27 GPH
OM 008	8mm (3/8") / High press 6mm(1/4")	15-550 L/hr	4-145 GPH

Body material

A	Aluminum
S	316 stainless steel
N	Intermediate press. 316L SS meter (OM 004N – OM 008N = 100bar max.)
H	High pressure 316 SS (OM 004H – OM 008H= 400bar [5580psi] max.)

Rotor material

0	TF-PPS rotors (OM008 only)
5	Stainless steel (all standard OM004 – OM008 meters and all stainless steel models only)
7	Keishi cutting of stainless steel rotors (for high viscosity liquids)

Bearing type

1	Ceramic (Standard with Stainless steel rotors)
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O-ring material

1	Viton (standard) -15→+200°C (-5→+400°F)
2	Ethylene Propylene Rubber (EPR)- for ketones only
3	Teflon encapsulated viton - application specific
4	Buna-N (Nitrile) -65→+100°C (-53→+212°F)

Temperature limits

2	120°C (250°F) - see note 1
3	*150 °C (300°F) max. - (Hall Effect output only)
5	*120 °C (250°F) max. (Includes integral cooling fin) see note 2
8	*80 °C (180°F) max. (TF-PPS rotors and/or with BT,RT,EB options without cooling fin)

Process connections

1	BSP female threaded
2	NPT female threaded
4	ANSI-150 RF flanges
5	ANSI-300 RF flanges
6	PN16 DIN flanges
7	JIS 0kg flanges
9	Customer nominated

Cable entries

with B2/B3 options	0	3-6mm cable gland
	1	M20 x 15mm
	2	1/2" NPT

Integral options

	00	Nil
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
OM004: 1200ppL, OM006: 4200ppL	HR	High resolution hall effect output (Hall Effect only)
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	RT20 large LCD flow rate totaliser
2 stage DC batcher and totaliser	E0	EB10 batch controller
	FI	Loop powered 4 ~20mA analog output
	SB	Specific build requirement

Closed couple options

1	Back pressure wafer check valve within meter inlet flange
2	Aluminium air eliminator-strainer close coupled to meter
3	Above options 1 and 2 close coupled to meter
8	Aluminium strainer only close coupled to meter

Model No. Example

OM 006	S	5	5	1	5	1	1	R2	3
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*(1) 120°C (250°F) rating for the pulse meter, 80°C (180°F) rating with PPS Rotor and/or BT, RT & EB 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

ST004S1	4mm (1/8") - 316SS
ST006S1	6mm (1/4") - 316SS
ST008S1	8mm (3/8") - 316SS

FLOMECC

In the interest of product development, the design & specifications may alter without notification

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