



Positive Displacement Flowmeters

Small capacity flowmeters

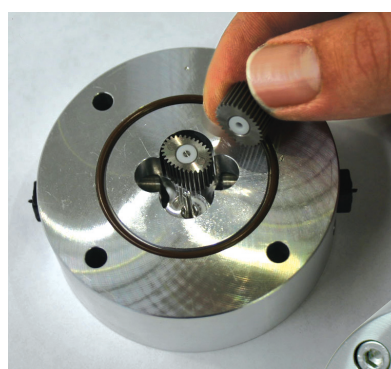
FLAMEC small capacity flowmeters provide precise volumetric measurement of small quantities of liquids or low flows found in a broad range of industries including automotive, aviation, mining, power, chemical, pharmaceutical, food, paint, petroleum & environmental. Applications include the metering of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

FEATURES/BENEFITS

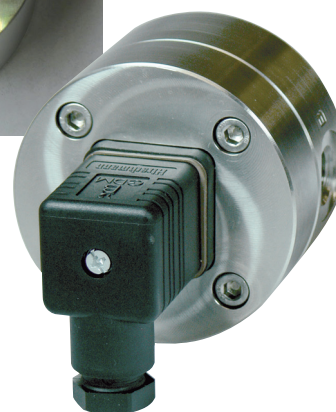
- High accuracy & repeatability, direct reading flowmeter
- No requirement for flow conditioning (straight pipe runs)
- Stainless steel rotors
- Measures high & low viscosity liquids
- Quadrature pulse output option & bi-directional flow

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 a reed switch & open collector outputs. Quadrature pulse outputs are optional.



Two oval shaped gears (rotors) are the only moving parts within the measuring chamber



Pulse meter

INTEGRAL INSTRUMENTS

FLAMEC 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 5 digit reset, 8 digit cumulative totaliser.
- RT 6 digit reset, cumulative totaliser & flow rate.
- EB 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*



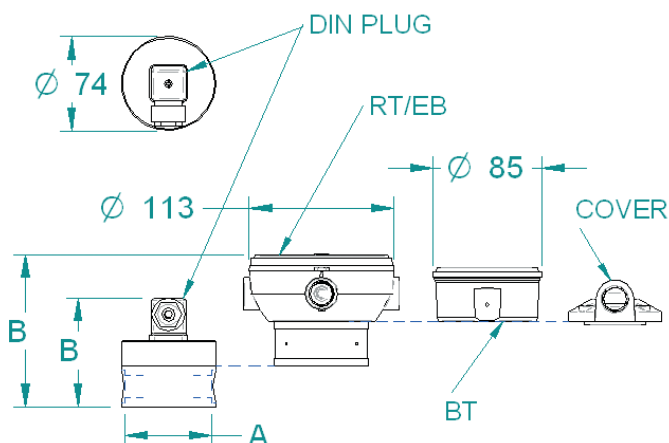
Specifications

Model prefix :	OM004	OM006	OM008
Nominal size (inches)	4mm (1/8")	6mm (1/4")	8mm (3/8")
Flow range - litres / hr (US gal./hr)	0.5 ~ 36 (0.13 ~ 9.5)	2 ~ 100 (0.5 ~ 27)	15 ~ 550 (4 ~ 145)
Accuracy @ 3cp	±1% o.r. (± 0.2% with optional RT12 using NLC)		
Repeatability	typically ± 0.03%		
Temperature range	-20°C ~ +120°C (-4°F ~ +250°F)		
Maximum pressure			
aluminium	15 bar (220 psig)		
316L stainless	34 bar (500 psig)		
high pressure stainless	refer factory		
Protection class	IP66/67 (NEMA4X), optional Exd IIB T6 or I.S.		
Recommended filtering	75 micron (200 mesh) minimum		
Electrical - for pulse meters (see also optional outputs)			
Output pulse resolution	pulses / litre (pulses / US gallon) - nominal		
Reed switch	2890 (10940)	2100 (7950)	355 (1345)
Hall effect	2890 (10940)	2100 (7950)	710 (2690)
** Reed switch output	30Vdc x 200mA max.		
Hall effect output (NPN)	3 wire open collector, 5-24Vdc max., 20mA max.		
Optional functions			
Display	flowrate, total (accumulative & resettable)		
Preset batching	1 & 2 stage high speed batch control		
Optional outputs			
Flow	4 ~ 20mA, high & low flow rate alarms		
Pulse	scaled pulse (programmable), pulse amplifier		

* Max. flow is to be reduced as viscosity increases, max. press. drop 100Kpa. (15 psi)

** Maximum thermal shock 10°C (50°F) / min. applies to the reed switch

DIMENSIONS



ALL DIMENSIONS IN MILLIMETERS

	A	Configuration	B	B
Thread			OM004/006	OM008
B.S.P.	68	DIN PLUG	79	86
N.P.T.	68	RT/EB REGISTER	112	119
		BT REGISTER	103	110
		COVER	92	99

Model coding

OM004	4mm (1/8")
	6mm (1/4")
OM008	8mm (3/8")

Body material

A	Aluminum
S	316 Stainless Steel
H	High Pressure 316SS

Rotor material

5	316 stainless steel
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Bearing type

1	Ceramic
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O-ring material

1	Viton (standard) -15~+200°C (-5~+400°F)
2	Ethylene Propylene Rubber -150°C (300°F) max.
3	Teflon encapsulated viton -150°C (300°F) max.
4	Buna-N (Nitrile) -65~+100°C (-53~+212°F)

Temperature limits

2	120°C (250°F) - see note 1
5	120°C (250°F) - see note 2

Process connections

1	BSP female threaded
2	NPT female threaded

Cable entries

with DIN plug & BT11 only	0	3-6mm cable gland
	1	M20 x 1.5mm
	2	1/2" NPT

Model No. Example

OM006	S	5	1	1	-	5	1	2	R2
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Integral options

IECEX & ATEX approved	QP	Quadrature pulse output
	E1	Explosion proof ~ Exd
accum. & reset totals, pulse output	Q1	Exd with Quadrature pulse
	B2	BT11 dual totaliser
	B3	Intrinsically safe BT11 (I.S.)
	R2	RT12 Flow Rate Totaliser
	R3	Intrinsically safe RT12 (I.S.)
	E0	EB10 batch controller
consult factory	SB	Specific build requirement

(1) 120°C (250°F) rating of the pulse meter, 80°C (180°F) rating with BT, RT & EB options.

See temperature code 5 for higher temperature with BT, RT, & EB

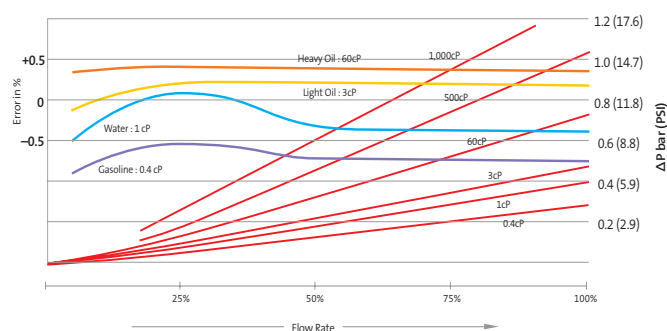
(2) Cooling fin is fitted with integral instruments for operation from 80~120°C (180~250°F)

Recommended strainer

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



ACCURACY & PRESSURE DROP



FLMEC

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



Data sheet No. DSOMSML-0307