

**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.

## 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



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



Pulse meter



## 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	400 bar ( 5800 psig )		
Protection class	IP66/67 (NEMA4X), optional Exd IIB T6 or I.S.		
Recommended filtering	75 micron ( 200 mesh ) minimum		
<b>Electrical - for pulse meters (see also optional outputs)</b>			
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.		
<b>Optional functions</b>			
Display	flowrate, total (accumulative & resettable)		
Preset batching	1 & 2 stage high speed batch control		
<b>Optional outputs</b>			
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

## Model coding

OM004	4mm ( 1/8" )
OM006	6mm ( 1/4" )
OM008	8mm ( 3/8" )

### Body material

A	Aluminium
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

0	3-6mm cable gland
1	M20 x 1.5mm
2	1/2" NPT

with DIN plug & BT11 only

### Model No. Example

OM006 S 5 1 1 - 5 1 2 R2

2 NPN open collector phased outputs	IECEX & ATEX approved
IECEX & ATEX approved	
IECEX & ATEX approved	
accum. & reset totals, pulse output	IECEX & ATEX approved
IECEX & ATEX approved	
flow rate, totals & all outputs	IECEX & ATEX approved
IECEX & ATEX approved	
dc 2 stage batch controller	consult factory

### Integral options

QP	Quadrature pulse output
E1	Explosion proof - Exd
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.)
EO	EB10 batch controller
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

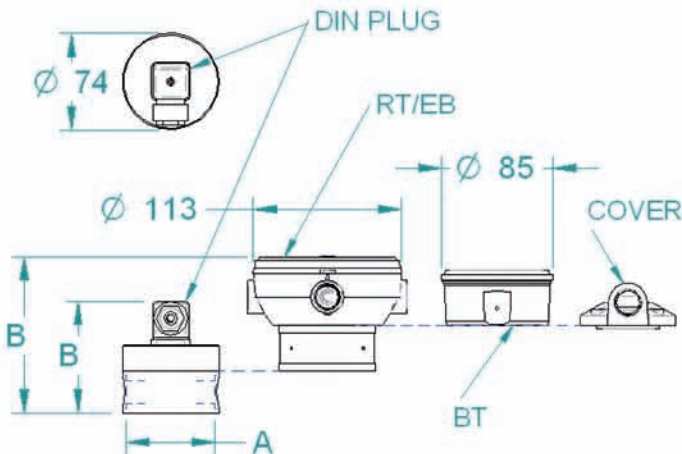
(2) Cooling fin is fitted with integral instruments for operation from 80-120°C (180-250°F)

## Recommended strainer

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



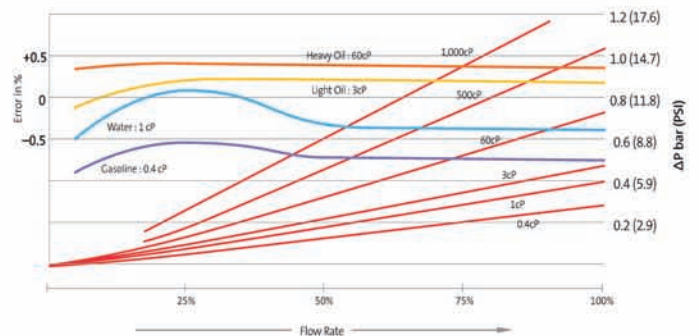
## DIMENSIONS



ALL DIMENSIONS IN MILLIMETERS

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

## ACCURACY & PRESSURE DROP



# FLOMECC

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

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