

### SMALL CAPACITY OVAL GEAR FLOWMETERS



# **MICROPULSE GEAR - Small capacity meters**

The Micropulse Oval series PD flowmeters offer a high level of accuracy turndown & repeatability. These precision meters are used for flow rate measurement in flow monitoring & control application and for totalizing in dispensing and batching.

Micropulse gear meters are suitable for use with a wide range of clean liquids including viscous lubricants, chemicals, food bases & non-conductive low viscosity solvents either pumped or gravity fed.

#### **FEATURES:**

- High accuracy & repeatability.
- Measure low & high viscosity liquids.
- Optional electronic registers.
- Certified Exd hazardous area versions in all sizes.

- No need for flow conditioning (straight pipe run etc.)
   Quadrature pulse output option & bi-directional flow.
   Specialty high pressure meters for mining & exploration.

## **STANDARD OPTIONS:**

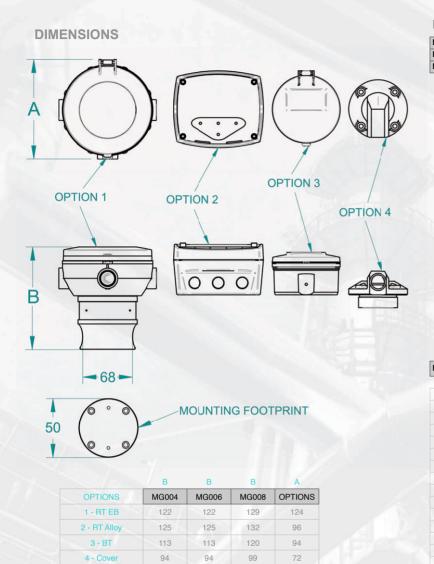
High resolution output, Explosionproof, integral and remote LCD totaliser-batch totaliser, flow rate totalisers, scaled pulse, 4~20mA & flow alarm outputs, electronic batch controllers and pulse flow alarm outputs, processing modules.

#### **GENERAL SPECIFICATIONS**

Model prefix :	MG004	MG006	MG008
Nominal size ( inches )	4mm (1/8")	6mm (1/4")	8mm (3/8")
* Flow range - litres / hr	0.5 ~ 36	2 ~ 100	15 ~ 550
( US gal./hr )	(0.13 ~ 9.5)	(0.5 ~ 27)	(4~145)
Accuracy @ 3cp	±1% o.r. (± 0.2% with optional NL correction)		
Repeatability	typically ± 0.03%		
Temperature range	-20°C ~ +120°C (-4°F ~ +250°F)		
Maximum pressure	bar (P	SI)	
aluminium	15 (220)		
316L stainless	34 (500)		
high pressure stainless	Refer Page 9		
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 o	utputs)	
Output pulse resolution pulse	es / litre (pulses /	US gallon ) - nomir	nal
Reed switch	2800 ( 10600 )	1050 (4000)	355 (1345)
Hall effect	2800 ( 10600 )	1050 (4000)	710 (2690)
High Resolution Hall effect	11220 ( 42470 )	4200 (15900)	N/A
** Reed switch output	30Vdc x 200mA max.		
Hall effect output (NPN)	3 wire open collector, 5~24Vdc, 20mA max.		
* Max. flow is to be reduced as visco	osity increases, max.	pressure drop 100Kpa	(15 psi)



# TECHNICAL INFORMATION SMALL CAPACITY OVALMETERS



#### MODEL CODING MG004 4mm (1/8") MG006 6mm (1/4" MG008 8mm (3/8") Body material s 316 Stainless Steel High Pressure 316 stainless steel Rotor material 316 stainless steel Bearing type 1 Ceran O-ring material Viton ( standard ) -15~+200°C (-5~+400°F) 1 Ethylene Propylene Rubber -150°C (300°F) max. 2 Teflon encapsulated viton -150°C (300°F) max. Buna-N (Nitrile) -65~+100°C (-53~+212°F) Temperature limits 120°C ( 250°F ) - see note 1 120°C ( 250°F ) - see note 2 Process connections 1 BSP female threaded 2 NPT female threaded Cable entries 3~6mm cable gland M20 x 1.5mm 1/2" NPT Model No. Example MG006 S 5 1 1 - 5 1 2 R2 Integral options GRN terminal cover (std.) glass reinforced nylon (GRN) SS Stainless terminal cover IECEx & ATEX approved E1 Explosion proof ~ Exd 2 NPN open collector phased outputs QP Quadrant pulse output IECEx & ATEX approved 01 Exd with Quadrature pulse MG004 = 11200ppL, MG006 = 4200ppL HR High resolution Hall Effect output IECEx & ATEX approved H1 Exd with HR high resolution Hall for injected combustion engines Pulsating flow option (Hall effect only) IECEx & ATEX approved Explosion proof ~ Exd with PF option with scaleable pulse output B2 BT11 dual totaliser Intrinsically safe BT11 (I.S.) IECEx & ATEX approved ВЗ flow rate, totaliser & all outputs RT12 Flow Rate Totaliser R2

R3

R4

FI

E0

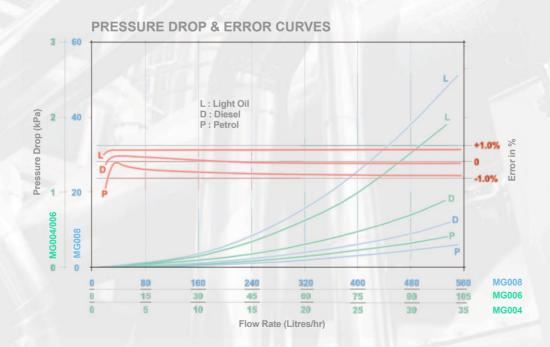
IECEx & ATEX approved

large digit flow rate, totals

adapts to pulse output board

dc powered 2 stage batch controlle

consult factory



Intrinsically safe RT12 (I.S.)

Loop powered 4~20mA output

RT20 Flow Rate Totaliser

Specific build requirement

EB10 batch controller