

Trimec Micropulse Range of positive displacement flowmeters offer a high level of accuracy and repeatability. These precision meters are used for flowrate measurement in flow monitoring and control applications and for totalizing in dispensing and batching. Micropulse meters are suitable for use with a wide range of clean liquids including viscous lubricants, chemicals, food bases and non-conductive low viscosity solvents either pumped or gravity fed.

Features / Benefits

- High accuracy & repeatability, direct reading flowmeter
- No requirement for flow conditioning (*straight pipe runs etc*)
- Stainless steel rotors (Optional PPS Rotor for MG008 Size)
- Measures high & low viscosity liquids
- Quadrature pulse output option & bi-directional flow
- Integral 4-20mA output option
- Optional Exd I/IB approval (ATEX, IECEx)
- PF option available for metering pulsating flows

Meter selection

Meters are selected based on flow range, pressure, temperature, material compatibility and functionality.

- **Aluminium** Micropulse meters are ideal for petroleum products including oils and grease, fuels and fuel oils.
- **Stainless steel** meters are suited for chemicals, water based products and the food, cosmetic and pharmaceutical industries.
- **Micropulse** meters are available as blind meters with pulse output or with integral or remote totalisers, flow rate displays or preset batch controllers.
- **Pulse meter** outputs can be interfaced to most electronic displays or instrumentation. Quadrature pulse & Integral 4-20mA outputs are optional.

Integral instruments

Trimec 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:

- 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

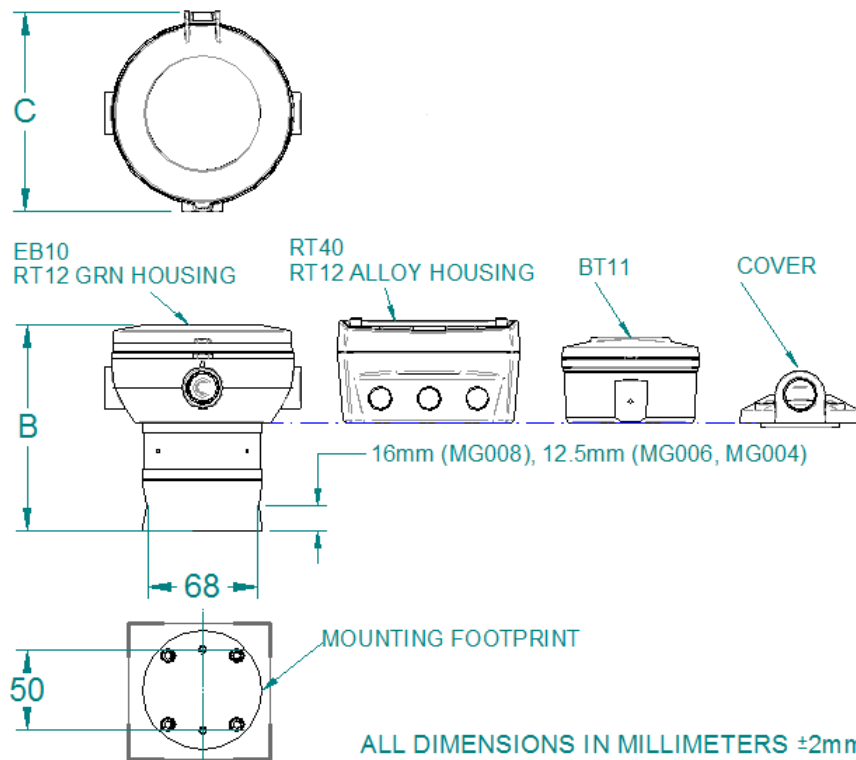


Specifications

Model Prefix:	MG004 (1/8")	MG006 (1/4")	MG008 (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)
Electrical - 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		
Physical			
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			

* see also maxipulse & multipulse gear data sheets for other size meters

Over all Dimensions



	B	B	B	C
CONFIGURATION	MG004	MG006	MG008	
EB10/RT12 GRN HOUSING	122	122	129	124
RT40/ RT12 ALLOY HOUSING	125	125	132	96
BT11	113	113	120	94
COVER	92	92	99	72

Model Coding-



Preset Batcher

Rate Totaliser



Batch Totaliser



Integral Instruments

Meter Size			
MG004	4mm (1/8")	0.5-36 L/hr	0.13-9.5 GPH
MG006	6mm (1/4")	2-100 L/hr	0.5-27 GPH
MG008	8mm (3/8")	15-550 L/hr	4-145 GPH

Body material	
A	Aluminum
S	316 stainless steel
N	Intermediate press. 316 SS meter (MG004N ~ MG008N = 100bar max.)
H	High pressure 316 SS (MG004H ~ MG008H = 400bar [5800psi] max.)

Rotor material	
0	PPS*-Teflon Filled (Polyphenylene Sulfide)* Only available with MG008 size
5	Stainless steel (all standard MG004 ~ MG008 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)
QP	Quadrature pulse (2 NPN Phased outputs)
E1	Explosion proof ~ Exd IIB T4/T6 (Aluminium & stainless meters)
E2	Explosion proof ~ Exd IIB T4/T6 (stainless meters only)
Q1	Exd with Quadrature pulse (not available with high press. meter)
HR	High resolution hall effect output (Hall Effect only for MG004 & 008)
H1	Exd with HR Hi-res. Hall Option. (MG004 and OM006 only)
PF	Pulsating flow option (hall effect output only)
P1	Exd with PF pulsating flow option.
B2	BT11 dual totaliser with pulse output
B3	Intrinsically safe BT11 (I.S.)
R0	RT12 Flow Rate Totaliser with all outputs (Alloy housing)
R2	RT12 Flow Rate Totaliser with all outputs (GRN housing)
R3	Intrinsically safe RT12 (I.S.)(GRN housing)
R4	RT40 large LCD flow rate totaliser (Alloy housing)
E0	EB10 batch controller
FI	Loop powered 4 ~ 20mA analog output; 80°C (180°F) max.
A1	Exd with Loop powered 4-20mA Analogue Output. 80°C (180°F) max.
FH	High Resolution hall output with FI option (only for MG004 & 006)
SB	Specific build requirement

Model No.	Example
MG006	S 5 1 1 - 5 1 1 R2

*(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



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