

Trimec Maxipulse 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. Maxipulse 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*)
- Various rotor material options
- Measures high & low viscosity liquids
- Quadrature pulse output option & bi-directional flow
- Integral 4-20mA output option
- Optional Exd I/IB approval (ATEX, IECEx)

Meter selection

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

- **Aluminium** Maxipulse meters are ideal for petroleum products including oils and grease, fuels and fuel oils.
- **Stainless steel** meters are suited for chemicals, water based products or where aluminium is not suited or permitted.
- **Maxipulse** meters are available as blind meters with pulse output (Reed & Hall Effect) 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 : 35 ~ 2500 litres /min. (10~ 660 USgal/min.) *

Sizes : 80~100mm (3"~4" NB)

Materials : Aluminium, 316 Stainless steel or ductile iron

* see also data sheets for other size meters

NMI Approved Meters

Many applications require the use of NMI approved meters.

Trimec Series Flowmeters 1" and above are available with optional NMI pattern approval with quadrature pulse output.

Blind Pulse
meter



With LCD
Register

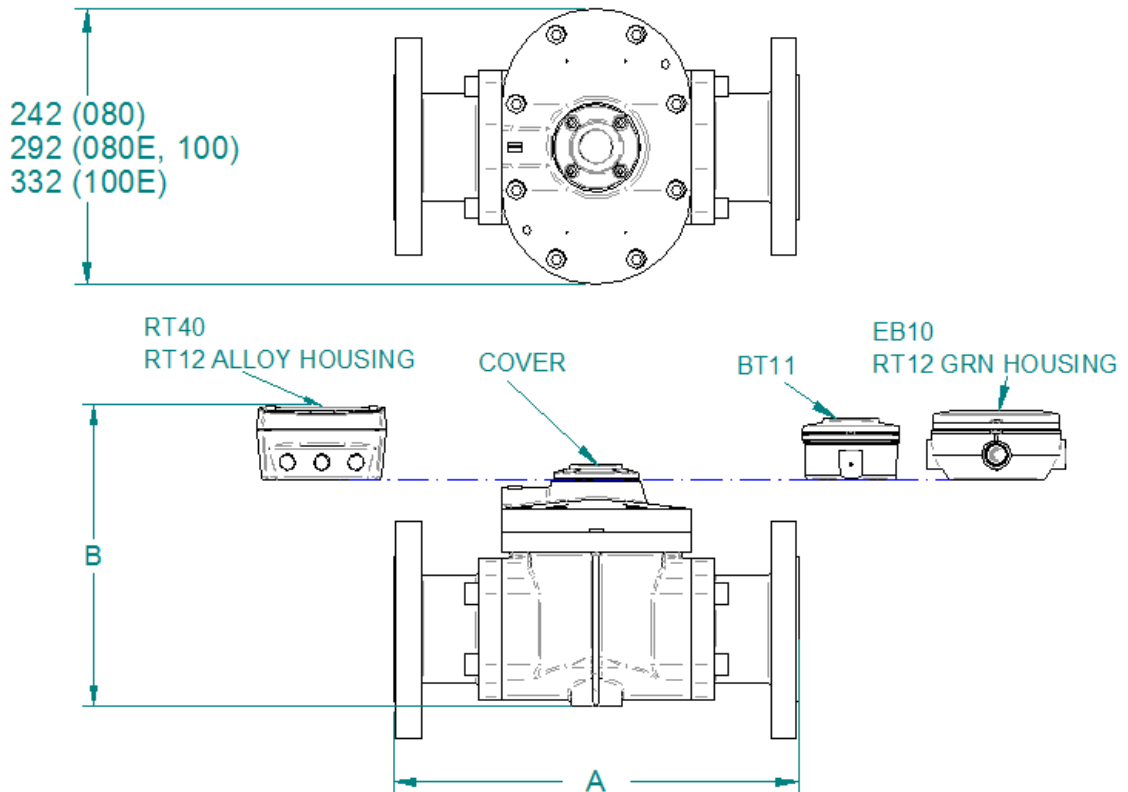


Specifications

Model Prefix	MG080 (3")	MG080 (3") E	MG100 (4")	MG100 (4") E
Nominal size (inches)	80mm (3")	80mm (3") E	100mm (4")	100mm (4") E
*Flow range - litres/min	35 ~ 750	50 ~ 1000	75 ~ 1500	150 ~ 2500
- US gal/min	10 ~ 200	13 ~ 260	20 ~ 400	40 ~ 660
**Accuracy @ 3cp	± 0.5% of reading (accuracy ± 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	12 (175)	12 (175)	10 (145)	10 (145)
316 stainless steel meters	12 (175)	-	-	-
ductile iron	12 (175)	-	10 (145)	-
Electrical - for pulse meters (see below for optional outputs)				
Output pulse resolution	pulses / litre (pulses / US gallon) - nominal			
Reed switch	2.65 (10)	1.55 (5.68)	1.1 (4.15)	0.56 (2.1)
Hall effect	10.65 (40.5)	6.0 (22.7)	4.4 (8.3)	2.24 (8.5)
Quadrature Hall option	5.33 (20)	3.0 (11.36)	2.2 (8.3)	1.12 (4.24)
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	350 microns (40 mesh)			

* Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max. Recommended pressure drop is 100Kpa (15 psi).

Over all Dimensions:



ALL DIMENSIONS ARE IN MILLIMETERS ±2mm

	A	A	A	A		B	B	B	B	B
Modular Fitting	MG080	MG080E	MG100	MG100E	Configuration	MG080-A	MG080-S	MG080E	MG100	MG100E
A.N.S.I. 150	354	382	388	414	EB10/RT12 GRN HOUSING	260	257	277	322	399
DIN 16	354	382	388	414	BT11 REGISTER	252	249	269	314	391
JIS 10K	354	382	388	414	RT40/RT12 ALLOY HOUSING	264	260	281	326	403
B.S.P.	266	294	294	320	COVER	213	206	229	274	352
N.P.T.	266	294	294	320						

Model Coding-



Meter size

MG080	80mm (3")	35-750 L/min	10-200 GPM
MG080	80mm (3" extended flow)	50-1000 L/min	13-260 GPM
MG100	100mm (4")	75-1500 L/min	20-400 GPM
MG100	100mm (4" extended flow)	150-2500 L/min	40-660 GPM

Body material

A	Aluminium
E	Extended flow Aluminium version
S	316L Stainless steel (MG080 meter only)
D	Ductile iron (Consult factory for availability)

Rotor material

0	PPS-Teflon Filled (Polyphenylene Sulfide) (Not available for MG100E)
1	Keishi cutting Teflon Filled-PPS rotors (Not available for MG100E)
4	Aluminium (Aluminium meters only)
5	Stainless steel (MG080 meter only)
6	Keishi cutting of Aluminium rotors (for high viscosity liquids)
7	Keishi cutting of stainless steel rotors (for high viscosity liquids)

Bearing type

0	No bearing (PPS rotors only)
1	Carbon-Ceramic (Standard with Stainless steel rotors)
4	Hardened steel roller bearings (Aluminium 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 (+5°F) minimum
4	Buna-N (Nitrile) -40~+100°C (-40~+212°F)

Temperature limits

	2	120°C (250°F) - see note 1
080A or 080S Hall only	3	*150 °C (300°F) max.
& for o-ring code 1 or 3	5	*120 °C (250°F) max. (Includes integral cooling fin) see note 2

Process connections

	1	BSP female threaded
	2	NPT female threaded
	3	* Tri-clamp hygienic ferrules
	4	ANSI-150 RF flanges
	5	ANSI-300 RF flanges
	6	PN16 DIN flanges
	7	JIS10kg/cm2 flanges
	9	CustMGER nMGinated

* tri-clamp ferrules are 1/2" larger than the meter size

Cable entries

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 I/IB T4/T6 (stainless meters only)
	Q1	Exd with Quadrature pulse
	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.)
	R4	RT40 large LCD flow rate totaliser (Alloy housing)
	E0	EB10 batch controller
	FI	Loop powered 4 ~ 20mA analog output(80°C max)
	A1	Exd with Loop powered 4 ~ 20mA analog output(80°C max)
	SB	Specific build requirement

MG080 A 4 4 1 5 1 1 R2 (refer factory for model availability)

#1 (Meter close couple option with strainer/Air-Eliminator, please refer factory for part no. or strainer data sheet)

*(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)



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