



### MAXIPULSE GEAR - Large capacity meters

Trimec large capacity flowmeters are suited for receipt verification, loading, un-loading & distribution management at petroleum depots, mine sites, marine, aviation & industrial facilities.

Common applications involve fuels, oils, solvents, alcohols along with the blending of Bio-fuels & ethanol fuels either pumped or gravity fed. The meters are compact & light weight in construction, important benefits when used in mobile installations or within confined spaces.

#### FEATURES :

- High accuracy & repeatability.
- Measure low & high viscosity liquids.
- Optional mechanical & 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.
- Optional integral check valves.

#### STANDARD OPTIONS :

*Flanged process connections, Explosionproof, Mechanical registers, integral and remote LCD totaliser-batch totaliser, flow rate totalisers, scaled pulse, 4~20mA & flow alarm outputs, electronic batch controllers and pulse processing modules.*

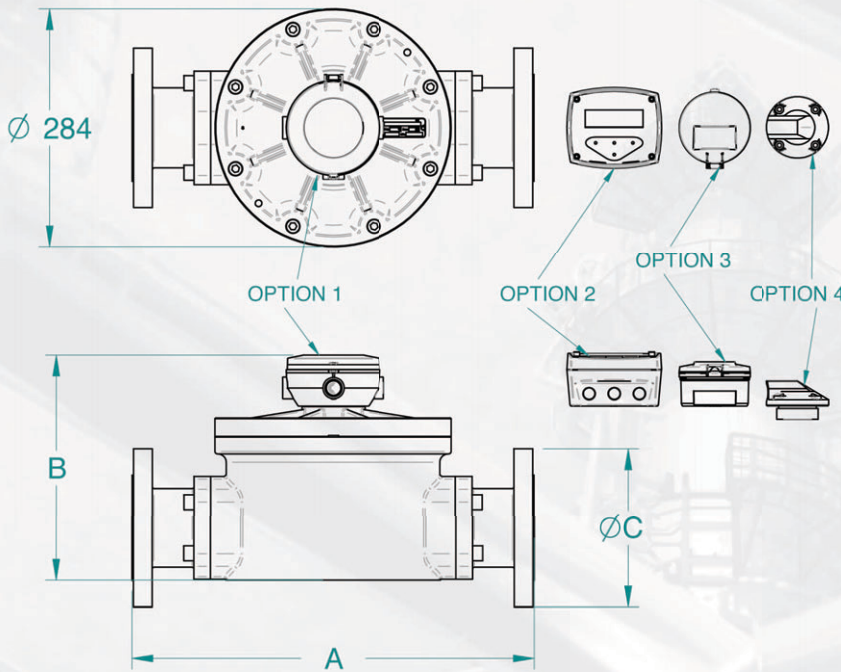
### GENERAL SPECIFICATIONS

Model prefix :	<b>MG080E</b>	<b>MG100</b>
Nominal size ( inches )	80mm ( 3" )	100mm ( 4" )
* Flow range ( litres / min )	50 ~ 1000	75 ~ 1500
* Flow range ( gal / min )	13 ~ 260	20 ~ 400
Accuracy @ 3cp	± 0.2% of reading (15:1 turndown) ± 0.5% for 20:1	
Repeatability	typically ± 0.03%	
Temperature range	-20°C ~ +120°C ( -4°F ~ +250°F )	
<b>Maximum pressure ( threaded meters )</b>		
aluminium	12 bar (180 psig)	10 bar (150 psig)
Ductile iron	12 bar (180 psig)	10 bar (150 psig)
Protection class	IP66/67 (NEMA4X), optional Exd IIB T6 or I.S.	
Recommended filtering	350 microns ( 40 mesh ) minimum	
<i>Electrical - for pulse meters (see also optional outputs)</i>		
Output pulse resolution	pulses / litre ( pulses / US gallon ) - nominal	
Reed switch	1.55 ( 5.87 )	1.1 ( 4.15 )
Hall effect	6.2 ( 23.5 )	4.4 ( 16.6 )
Quadrature Hall option	3.1 ( 11.8 )	2.2 ( 8.3 )
** Reed switch output	30Vdc x 200mA max.	
Hall effect output	3 wire NPN open collector, 5~24Vdc, 20mA max.	

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

# TECHNICAL INFORMATION LARGE CAPACITY OVALMETERS

## DIMENSIONS



All dimensions in millimeters

Modular Process	A	A	ØC	ØC	Option	B	B
Connections	MG080H	MG100	MG080H	MG100		MG080H	MG100
ANSI 150 Flange	482	482	190	229	1 - RT EB	270	315
DIN 16 Flange	482	482	200	220	2 - RT ALLOY	274	319
JIS 10K Flange	482	482	185	210	3 - BT 11	262	307
BSP Screwed	394	394	-	-	4 - COVER	238	283
NPT Screwed	394	394	-	-			

## MODEL CODING

<b>MG080E</b>	80mm
<b>MG100</b>	100mm (4")

<b>Body material</b>	
<b>A</b>	Aluminum

<b>Rotor material</b>	
<b>4</b>	Aluminum

<b>Bearing type</b>	
<b>4</b>	Hardened steel needle roller bearings

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

<b>Temperature limits</b>	
- <b>2</b>	120°C (250°F) - see note 1
- <b>5</b>	120°C (250°F) - see note 2

<b>Process connections</b>	
<b>1</b>	BSP female threaded
<b>2</b>	NPT female threaded
<b>4</b>	ANSI-150 RF flanges
<b>5</b>	ANSI-300 RF flanges
<b>6</b>	PN16 DIN flanges
<b>9</b>	Customer nominated

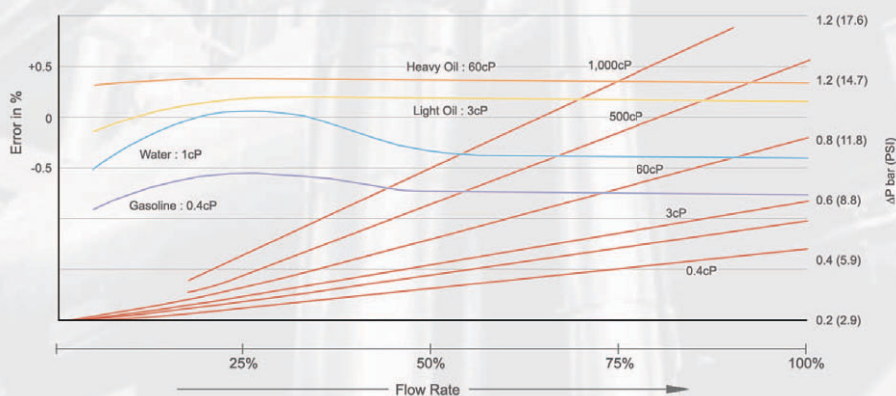
<b>Cable entries</b>	
with B2 & B3 options only	<b>0</b> 3-6mm cable gland
	<b>1</b> M20 x 1.5mm
	<b>2</b> 1/2" NPT

Model No. Example

<b>MG100</b>	<b>A</b>	<b>4</b>	<b>4</b>	<b>1</b>	-	<b>5</b>	<b>4</b>	<b>2</b>	<b>R2</b>
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glass reinforced nylon (GRN)	<b>SS</b>	GRN terminal cover (std.)
IECEX & ATEX approved	<b>E1</b>	Stainless terminal cover
2 NPN open collector phased outputs	<b>QP</b>	Explosion proof ~ Exd
IECEX & ATEX approved	<b>Q1</b>	Quadrant pulse output
for injected combustion engines	<b>Q1</b>	Exd with Quadrature pulse
IECEX & ATEX approved	<b>PF</b>	Pulsating flow option
with scaleable pulse output	<b>P1</b>	Explosion proof ~ Exd with PF option
IECEX & ATEX approved	<b>B2</b>	BT11 dual totaliser
flow rate, totaliser & all outputs	<b>B3</b>	Intrinsically safe BT11 (I.S.)
IECEX & ATEX approved	<b>R2</b>	RT12 Flow Rate Totaliser
Large backlite LCD digits	<b>R3</b>	Intrinsically safe RT12 (I.S.)
adapts to pulse output board	<b>R4</b>	RT20 Flow Rate Totaliser
dc powered 2 stage batch controller	<b>FI</b>	Loop powered 4~20mA output
consult factory	<b>E0</b>	EB10 batch controller
	<b>SB</b>	Specific build requirement

## ACCURACY CURVES & PRESSURE DROP



for individual data sheets:  
[www.trimecind.com](http://www.trimecind.com)