

## MULTIPULSE POSITIVE DISPLACEMENT FLOWMETERS



Designed  
and  
Manufactured  
for Customer  
Value



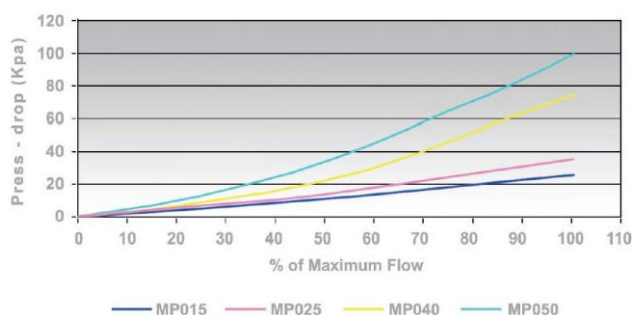
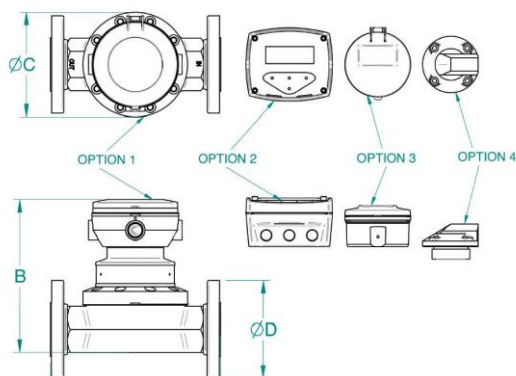
Proudly manufactured in Australia



## Multipulse Medium Capacity

### Positive Displacement Flowmeters

The Multipulse range of positive displacement flowmeters offer a high level of accuracy and repeatability. These precision flowmeters are used for flow rate measurement in flow monitoring and control applications and for totalising in dispensing and batching. Multipulse flowmeters 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.



## Applications Include

Alcohols, acetic acid, caustic soda, ethanol fuels, grease, glucose, ink, insecticides, latex emulsions, liquid sugar, margarine, mayonnaise, molasses, resins, tallow, urethane, water xylene, liquid yeast, oils, grease and fuels.

## Feature / Benefits

- Flows: 0.2~330 litres/min (0.05~90 US gal/min)
- Sizes: 15, 20, 25, 40 and 50mm ( ½", ¾", 1", 1 ½", and 2" connections)
- High accuracy and repeatability, direct reading flowmeter
- No requirement for flow conditioning (straight pipe runs etc.)
- Intrinsically safe and explosion proof models available
- Quadrature pulse output and bi-directional flow

## Calibration – PD Flowmeters

All Trimec Flow Products positive displacement (PD) flowmeters are flow tested and each is supplied with an individual calibration certificate. Calibration is traceable to the National Measurements Institute (NMI) Australia. PD flowmeters, due to their application on a wide range of liquid viscosities, are calibrated at one point. Multipoint calibration for PD flowmeters is available on request at an additional charge.

## Meter Selection

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

**Aluminium Multipulse flowmeters** are ideal for petroleum products including oils and grease, fuels and fuel oils.

**Stainless Steel Flowmeters** are suited for chemical, water based products and the food, cosmetic and pharmaceutical industries.

**UPVC (SAP) Flowmeters** (20mm size only) are ideally suited for special applications associated with corrosive fluids such as sodium hypochlorite, acids, photographic solutions or any chemical compatible with UPVC

**Multipulse Flowmeters** 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.

## MODEL CODING

MP015	1/2" ( 15mm ) Alum. & stainless
MP020	3/4" ( 20mm ) UPVC only
MP025	1" ( 25mm ) Alum. & stainless
MP040	1 1/2" ( 40mm ) Alum. & stainless
MP050	2" ( 50mm ) Alum. & stainless

### Body material

A	Aluminium
S	316 Stainless Steel
H	High Pressure 316 stainless
P	UPVC ( 5 bar max, 40°C max )

### Piston material

2	PEEK - optional in all meters - 150°C ( 300°F ) max.
3	PTFE - standard in all meters - 120°C ( 250°F )
9	Special materials - eg. for 200°C ( 400°F )

### Partition material

1	Ceramic ( for abrasive liquids )
2	316 Stainless Steel ( standard )
3	UPVC

### 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~+125°C ( -53~+250°F )

### Temperature limits

- 1	-40 to 60°C ( +40 to 140°F )
- 2	120°C ( 250°F ) - see note 8
- 3	150°C ( 300°F ) - PEEK piston, NPN output
- 4	40°C ( 100°F ) - UPVC meters
- 5	120°C ( 250°F ) - see note 9
- 6	200°C ( 400°F ) - coil output

### Process connections

1	BSP ( RP ) 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

### Cable entries

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

\* Triclamp ferrules are 1/2" larger than the meter size

with B2 & B3 options only

### Model No. Example

MP015	S	2	2	1	-	2	1	2	R2
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### Integral options

glass reinforced nylon ( GRN )		GRN terminal cover (std.)
	SS	Stainless terminal cover
IECEX & ATEX approved	E1	Explosion proof ~ Exd
2 NPN open collector phase outputs	QP	Quadrature pulse output
IECEX & ATEX approved	Q1	Exd with Quadrature pulse
accum. & reset totals, pulse output	B2	BT11 dual totaliser
IECEX & ATEX approved	B3	Intrinsically safe BT11 (I.S.)
flow rate, totals & all outputs	R2	RT12 Flow Rate Totaliser
IECEX & ATEX approved	R3	Intrinsically safe RT12 (I.S.)
large backlit LCD digits	R4	RT40 Flow Rate Totaliser
adapts to pulse output board	F1	Loop powered 4~20mA output
dc powered 2 stage batch controller	E0	EB10 batch controller
consult factory	SB	Specific build requirement

- (1) 120°C (250°F) for pulse meters, 80°C (180°F) rating with BT, RT & EB options.  
See temperature code 5 for higher temperature with BT, RT, & EB
- (2) Cooling fin fitted to integral instruments for operation from 80~120°C (180~250°F)

## GENERAL SPECIFICATIONS

Model prefix :	MP015	MP020	MP025	MP040	MP050	
Nominal size mm ( " )	15 (1/2")	20 (3/4")	25 (1")	40 (1.5")	50 (2")	
Flow range ( litres / min )	0.2~10	2~50	2~50	4~140	12~330	
Flow range ( USG / min )	0.05~2.7	0.5~13	0.5~13	1.1~37	3.2~90	
Accuracy @ 3cp	*+/-1% o.r. +/- 0.5% of reading					
Improved accuracy	± 0.2% of rate with optional NL correction					
Repeatability	typically ± 0.03%					
Temperature range	-40°C ~ +200°C ( -40°F ~ +390°F )					
Maximum pressure ( threaded meters )			bar ( PSI )			
Aluminium	30 (440)	-	60 (870)	30 (440)	20 (300)	
316L stainless	100 (1500)	-	60 (870)	60 (870)	30 (440)	
high pressure stainless	350 (5150)	-	150 (2175)	150 (2175)	-	
UPVC (SAP meters)	4 (60)					
Protection class	IP66/67 (NEMA4X), optional Exd IIB T4 / T6 or I.S.					
Recommended filtering	150 microns ( 100 mesh ) minimum					
Electrical - for pulse meters ( see also optional outputs )						
Output pulse resolution	pulses / litre ( pulses / US gallon )					
Reed switch	200 (760)	20 (76)	20 (76)	7.3 (28)	2.5 (9.5)	
Hall effect	400 (1520)	100 (380)	100 (380)	44 (167)	20 (76)	
** Reed switch output	30Vdc x 200mA max.					
Hall effect output (NPN)	3 wire open collector, 5~24Vdc, 20mA max.					

\* Within nominal spans of MP015 ( 0.2~1.7, 1.7~5 & 5~10 litres/min )

All dimensions in millimeters +/- 2mm

Refer to drawing on page 2

Option Fitted	MP015	MP020	MP025	MP040	MP050
1	143	158	179	201	234
2	134	161	170	192	225
3	147	150	170	192	238
4	111	128	147	169	168
ØC	75	98	98	140	168

Connections	A				ØC			
	MP015	MP025	MP040	MP050	MP015	MP025	M-040	MP050
ANSI 150 Flange	132	152	224	253	89	108	127	152
ANSI 300 Flange	145	170	239	268	95	124	156	165
DNI 16 Flange	140	165	235	258	95	115	150	165
DNI 40 Flange	144	173	253	270	95	115	150	165
BSP Screwed	100	117	175	202	-	-	-	-
NPT Screwed	100	117	175	202	-	-	-	-

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