

MULTIPULSE

Medium Capacity

Positive Displacement Flowmeters



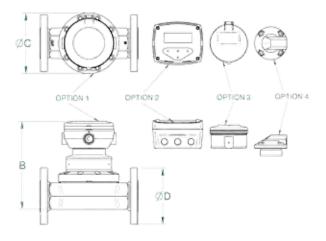


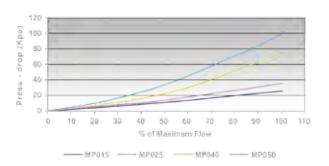




Multipulse Medium Capacity Positive Displacement Flowmeters

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

- Flows: 0.2~330 litres/min (0.05~90 US gal/min)
- Sizes: 15, 20, 25, 40 & 50mm ($^{1}/_{2}$ ", $^{3}/_{8}$ ", 1", $1^{1}/_{2}$ "& 2") connections
- High accuracy & repeatability, direct reading flowmeter
- No requirement for flow conditioning (straight pipe runs etc.)
- Intrinsically safe & explosion proof models available
- · Quadrature pulse output option & 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 meters 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 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.

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

Multipulse 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.

Applications Include

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



MODEL CODING



MP015	1/2" (15mm) Alum. & stainless
MP020	3/4" (20mm) UPVC only
MP025	1" (25mm) Alum. & stainless
MP040	11/2" (40mm) Alum. & stainless
MP050	2" (50mm) Alum. & stainless

Body material

Α	Aluminum
S	316 Stainless Steel
Н	High Pressure 316 stainless
Р	UPVC (5 bar max, 40ºC 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 -150ºC (300ºF) max.
3	Teflon encapsulated viton -150ºC (300ºF) 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

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

with B2 & B3 options only

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

ModelNo. 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	В2	BT11 dual totaliser
IECEx & ATEX approved	В3	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	EO	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
- Cooling fin fitted to integral instruments for operation from 80~120°C (180~250°F) (2)



GENERAL SPECIFICATIONS

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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 re					
Improved accuracy		± 0.2% of rat	e with optiona	al NL correctio	n			
Repeatability			ypically ± 0.03					
Temperature range		-40°C ∼ +2	200°C (-40°F ^	~ +390°F)				
Maximum pressure (threaded)	meters)	bo	ar (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	1							
Electrical - for pulse meters (se	e also option	al 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 c	ollector, 5~24	Vdc, 20mA ma	ıx.			

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

All dimensions in millimeters +/-		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	
ØС	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	-	-	-	-

Trimec Flow Products Pty Ltd (ABN 23 153 409 888) Unit 21/51 Kalman Drive Boronia, Vic., AUSTRALIA, 3155 Ph: +61 (0)3 9937 1811

Fax: +61 (0)3 9729 1960

E: sales@trimec-fp.com.au

W: www.trimec-fp.com.au

Authorized Distributor

