

MULTIPULSE

Medium Capacity

Positive Displacement Flowmeters



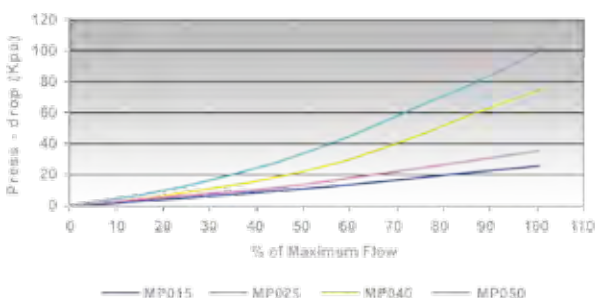
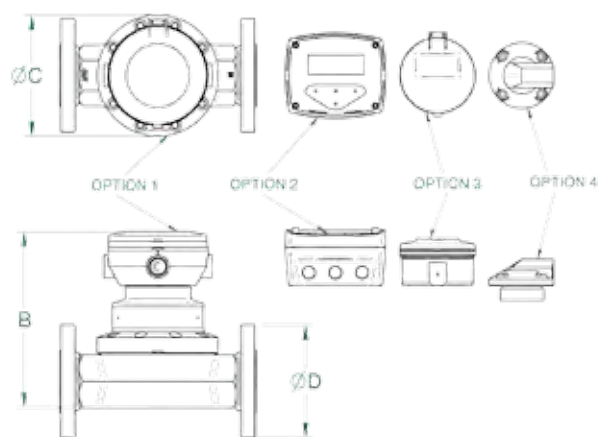
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Multipulse Medium Capacity Positive Displacement Flowmeters

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	1 1/2" (40mm) Alum. & stainless
MP050	2" (50mm) Alum. & stainless

Body material

A	Aluminum
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

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

Cable entries

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

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)



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)			
<i>Maximum pressure (threaded meters)</i>			<i>bar (PSI)</i>		
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				
<i>Electrical - for pulse meters (see also optional outputs)</i>					
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.				

Refer to drawing on page 2

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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