

## TRIMEC Micropulse/Multipulse/Maxipulse Gear

### Positive Displacement Flowmeters.

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

#### 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. **Multipulse** meters are available as blind meters with pulse output or with integral or remote totalisers, flow rate displays or preset batch controllers. These instruments provide a local LCD display, monitoring and control outputs including 4-20mA, scaled pulse, flow alarms outputs or batch control. **Pulse meters** outputs can be interfaced to most electronic displays or instrumentation. The reed switch is used when external power is not available and can be used in intrinsically safe loops. The output from the hall sensor is an NPN open collector providing high speed solid state pulses ideal for precise dispensing and batch control.



**Micropulse**



**Multipulse**



**Maxipulse**

#### Common Features:

- ◆ High accuracy & repeatability, direct reading flowmeter.
- ◆ No requirement for flow conditioning (straight pipe runs etc).
- ◆ Simple to install, easy to service (low number of parts).
- ◆ Stainless steel or aluminium models.
- ◆ Measures high & low viscosity liquids.
- ◆ Measures conductive & non-conductive clean liquids.
- ◆ Available with a variety of outputs and functions.
- ◆ Intrinsically safe & explosion proof models available.
- ◆ Quadrature pulse output option & bi-directional flow.

Operating temperature:	-10~120°C.
Repeatability:	typically ±0.03%.
Protection:	IP66/67 (NEMA4X), optional Exd IIB T6 or I.S.
Reed switch output:	30V dc x 200mA max.
Hall effect output:	3 wire open collector, 5~24Vdc max., 20mA max.
Control outputs:	two 1A NPN open collectors, 24Vdc max.
	two SPDT 5A relays (with ac & DIN powered versions).
Electrical connection:	M20 x 1.5mm or ½" NPT female threaded .

MODEL	DESCRIPTION	PRICE
<b>MG006</b>	<b>Micropulse Gear</b> - Small Capacity. Accuracy @ 3cp: ±1%. Max pressure: Aluminium = 15 bar. 316SS = 34 bar. Recommended filtering: 75 micron minimum. Flow range: 2~100 litres/hr. Nominal size: 6mm. Output pulse resolution: Reed switch: 2100 pulses/litre. Hall effect: 2100 pulses/litre.	
	<b>MG006A</b> Body: Aluminium ¼" BSP.	\$958.00
	<b>MG006S</b> Body: 316 stainless steel ¼" BSP.	\$1205.00
<b>MG008</b>	Flow range: 15~550 litres/hr. Nominal size: 8mm. Output pulse resolution: nominal. Reed switch: 2100 pulses/litre. Hall effect: 2100 pulses/litre.	
	<b>MG008A</b> Body: Aluminium 3/8" BSP.	\$1040.00
	<b>MG008S</b> Body: 316 stainless steel 3/8" BSP.	\$1305.00
<b>Micro Option</b>	High pressure 316 stainless steel. Max pressure = 400 bar.	POA
<b>MG025A</b>	<b>Multipulse Gear</b> - Medium Capacity. Accuracy @ 3cp: ±0.5%. Recommended filtering: 250 micron minimum. Flow range: 10~150 litres/min. Nominal size: 25mm. Output pulse resolution: nominal. Reed switch: 27 pulses/litre. Hall effect: 107 pulses/litre. Quadrature Hall option: 54 pulses/litre quad.	
	Body: Aluminium 1" BSP.	\$1793.00
	<b>MG025S</b> Max pressure: 68 bar. Body: 316 stainless steel 1" BSP. Max pressure: 100 bar.	\$3765.00
<b>MG80HA</b>	<b>Maxipulse Gear</b> - Large Capacity. Accuracy @ 3cp: ±0.5%. Body: Aluminium. Recommended filtering: 350 micron minimum. Flow range: 50~1000 litres/min 4" BSP. Max pressure: 12 bar. Nominal size: 80mm. Output pulse resolution: Reed switch: 1.5 pulses/litre. Hall effect: 6 pulses/litre. Quadrature Hall option: 3 pulses/litre quad.	
	Body: Aluminium.	\$7520.00
	<b>MG100A</b> Flow range: 75~1500 litres/min 4" BSP. Max pressure: 10 bar. Nominal size: 100mm. Output pulse resolution: nominal. Reed switch: 1.1 pulses/litre. Hall effect: 4.4 pulses/litre. Quadrature Hall option: 2.1 pulses/litre quad.	\$9590.00
<b>ALL Options</b>	Optional functions and/or outputs (with RT, BT & EB instruments).	POA

# Positive displacement flowmeter



- ◆ Metered liquids range from non conductive low viscosity solvents through to extremely viscous lubricants, chemicals and food bases.
- ◆ No stagnate chambers to harbour contaminants.
- ◆ No restrictions on mounting orientation and the flowmeter may be operated under vacuum flow, pumped flow or gravity flow conditions.
- ◆ Particularly suited to batching and dispensing duties.
- ◆ Meter performance is independent of flow profile eliminating the need for straight pipe runs.
- ◆ Multipulse flowmeter utilise the oscillating piston design principle. The only moving part.
- ◆ Intrinsically Safe = Reed switch output (without Hall device fitted) + approved intrinsically safe barrier.



**APPLICATIONS:**

316L Stainless Steel		Aluminium
Alcohols	Margarine	Gasoline
Acetic acid	Mayonaise	Fuel oils
Caustic soda	Molasses	Ketones
Ethanol	PVA glue	Lube oils
Fuel additives	Resin	Greases
Glucose	Tallow	Solvents
Hexane	Urethane	
Insecticides	Water	
Latex	Xylene	
Liquid sugar	Yeast	
<b>UPVC</b>		
Specialist applications		
Sodium hypochlorite		
Photographic solutions		

## TRIMEC MULTIPULSE

### Positive displacement flowmeter.

**Positive displacement flowmeter with two independent pulse output signals which are linearly proportional to volumetric flow rate.**

**Materials:**

Body: manifold and terminal cover: 316L SS, Aluminium or UPVC.  
 Piston: PEEK – polyetheretherketone (standard) or optional carbon filled teflon.  
 O-ring: Viton (standard) or optional EPDM, teflon or Buna-N (nitrile).  
 Partition: 316L SS (standard) or optional Ceramic (for non-lubricating liquids).

Temperature: a. -40~60°C. (UPVC meters, max 40°C).  
 b. +10~120°C.  
 c. +60~150°C (output 2 only).

Accuracy: ±0.5% of rate.  
 Reed switch output: 30Vdc max. voltage / 20mA max current.  
 Square wave output: 5~24Vdc / 20mA max. 3 wire NPN open collector.  
 Protection: IP67. - Optional, Ex d IIB T6 (Class 1, Division 1).

**Output 1:** Reed switch output. Voltage free contact closure.  
 The reed switch is classed as a 'simple device' and can be used in hazardous areas when connected via an approved intrinsically safe barrier.

**Output 2:** Square wave output.  
 An open collector pulse output produced by a solid state Hall Effect device. This three wire device requires 5~24Vdc excitation voltage and produces a high resolution NPN square wave conditioned output.

MODEL	DESCRIPTION			PRICE
<b>MP15S</b>	Material:	316L SS.	100 bar max.	\$2460.00
<b>MP15A</b>	Material:	Aluminium.	30 bar max.	\$1280.00
<b>MP15H</b>	Material:	316L SS.	350 bar max.	\$3410.00
	Size:	15mm.	½" BSPP.	
	Flow range:	10~500 litres/hour.		
	Output:	Reed switch.	200 pulses/litre.	
		Square wave.	400 pulses/litre.	
<b>MP25S</b>	Material:	316L SS.	100 bar max.	\$3030.00
<b>MP25A</b>	Material:	Aluminium.	80 bar max.	\$1700.00
<b>MP25H</b>	Material:	316L SS.	200 bar max.	\$3850.00
<b>MP20P</b>	Material:	UPVC.	4 bar max.	\$3030.00
	Size:	25mm.	1" BSPP.	
	Flow range:	120~3000 litres/hour.		
	Output:	Reed switch.	20 pulses/litre.	
		Square wave.	100 pulses/litre.	
<b>MP40S</b>	Material:	316L SS.	100 bar max.	\$4935.00
<b>MP40A</b>	Material:	Aluminium.	80 bar max.	\$3370.00
<b>MP40H</b>	Material:	316L SS.	250 bar max.	\$5635.00
	Size:	40mm.	1½" BSPP.	
	Flow range:	250~8000 litres/hour.		
	Output:	Reed switch.	7.3 pulses/litre.	
		Square wave.	44 pulses/litre.	
<b>MP50S</b>	Material:	316L SS.	38 bar max.	\$6785.00
<b>MP50A</b>	Material:	Aluminium.	20 bar max.	\$4085.00
	Size:	50mm.	2" BSPP.	
	Flow range:	700~20000 litres/hour.		
	Output:	Reed switch.	2.5 pulses/litre.	
		Square wave.	20 pulses/litre.	
<b>OPTIONS</b>				
For process connections of: NPT, Tri-clamp, Flanges.				POA
Integrally mounted electronic register: RT12-1DO Flowrate totaliser, Loop powered, pulse out and alarms.				\$1413.00
Note: These must be remotely mounted if the operating temperature exceeds 80°C.				