

LOWFLO FLOWMETER

The Lowflo uses the pelton wheel principle to measure the extremely low flow rates required in process plants, research facilities and laboratories. It will cover flow ranges from 1 to 420 litres/hour.

High accuracy and repeatability ✓

Improve your process
Reduce waste

Easily maintained ✓

Long life bearings
Well proven
Access the internals without removing the body from the line
Low pressure drop

Robust construction ✓

Stainless steel
Withstands high pressure and temperature

High quality manufacture ✓

Individual calibration certificates
ISO 9001 certified company



Application

The Lowflo flowmeter is used to measure extremely low flow rates of clean liquids, chemicals, additives, demineralised water, oil and fats. Applications include dosing of chemicals, batching, injection into food and animal feeds processes, blending, monitoring and pH adjustment.

Instrumentation

The pulse from the flowmeter is fed into an instrument and can be used for flow rate indication, totalising, blending, dosing, controlling and batching. The flowmeter can be used in hazardous areas. Apollo provide a range of instruments to suit your application.

Principle of Operation

The PFA Pelton wheel rotor has stainless steel rods embedded within the tips of the vanes. Tungsten carbide balls are integral to the rotor. The tungsten balls of the rotor spin in sapphire cups mounted in stainless steel bearing housings.

The flow of liquid causes the rotor to turn and a proximity sensor detects the passing of the rotor tips. The speed of the rotor and the frequency of the signal is directly proportional to the flow rate.

Calibration

All Lowflo flowmeters are individually calibrated with water and are traceable to national standards. We provide you with a test certificate for each meter showing the number of pulses per litre, which is used to set the instrumentation.

Installation

To achieve the best results from your flowmeter it should be mounted into the pipework with its sensor lying horizontally. The flowmeter should be maintained full of liquid prior to and throughout measurement.

Construction

The Lowflo has a strong stainless steel body that is corrosion resistant and withstands high pressures. The flowmeter is designed for use on clean liquids although particles up to 200 micrometres can be entrained in the liquid without any effect on the overall performance.

The two wire Namur sensor is fitted into the headcap of the flowmeter and is supplied with a 2 metre length of cable for connection to remote instruments.

APOLLO

Lowflo Flowmeter

Flowmeter Specification

Flow ranges:	1-10 litres/hour 1-25 litres/hour 3-60 litres/hour 2-97 litres/hour 5-150 litres/hour 10-250 litres/hour 20-350 litres/hour * 30-420 litres/hour *
Linearity:	+/- 1% of full scale * +/- 1% of reading
Repeatability:	+/- 0.2% reading
Nominal pulses/litre:	8000 (1-10 litres/hour) 5500 (1-25 litres/hour) 4800 (2-97 litres/hour) 2750 (3-60 & 5-150 litres/hour) 1850 (10-250 litres/hour) 1200 (20-350 litres/hour) 1050 (30-420 litres/hour)

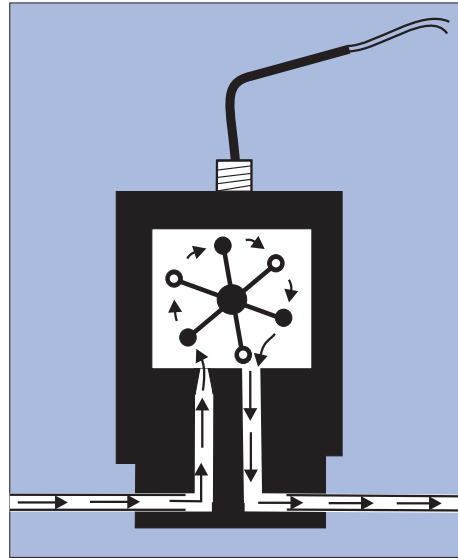
(each flowmeter is individually calibrated on water and will have its own unique K. factor)

Maximum working pressure:	69 bar
Body connections:	1/4" BSP internal
Maximum temp:	100°C
Maximum viscosity:	20 cst
Weight:	1.2 Kg

Materials of Construction

Body, cartridge and jet:	316 stainless steel
Headcap:	316 stainless steel
Rotor:	PFA 316 stainless steel tips
Bearings:	Tungsten carbide balls Synthetic sapphire cups
Gasket:	Mica

Lowflo Flow Diagram



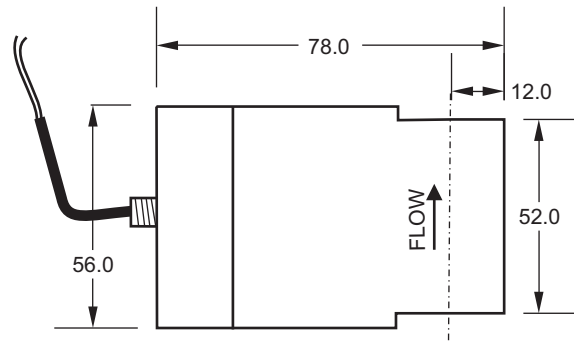
Sensor Specification

Type:	Namur
Power supply:	8VDC
Max. temp:	100°C
Output:	Current pulse High level > 3 mA Low level < 1 mA

Intrinsically Safe Version

The flowmeter can be used in Intrinsically Safe areas. The Namur sensor is certified to EEx ia IIC T6/T3

Dimensions



Dimensions in mm

Contact our flow measurement specialists for advice on your application

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