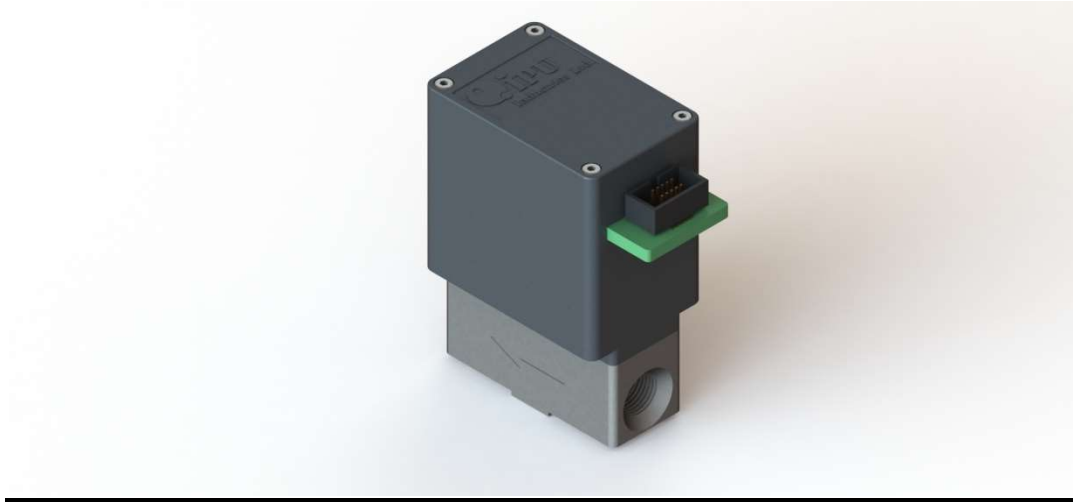


MINIATURE Proportional Valve IPBV



0 – 10, 0-50, 0-100, 0-200 liters per minute

IPU's Piezoelectric Proportional Valves have been especially designed to operate in open and closed loop. Closed loop operation requires an external control unit.

IPU-IPBV Piezoelectric Proportional Valve is a processor-controlled valve that accepts 4-20mA and/or 0-5 VDC control signal inputs. The IPU-IPBV accurately controls the flow of liquids and gases in industrial, pharmaceutical medical and biotechnology environments.

A plunger activated by a piezoelectric actuator with special sealing tip, moves in 0.001 mm (0.00002

inch) increments to precisely control the aperture of an orifice through which the gas or liquid flows. The piezoelectric actuator is capable to deliver a force of up to 500 grams to enable operating pressure of up to 150 PSI

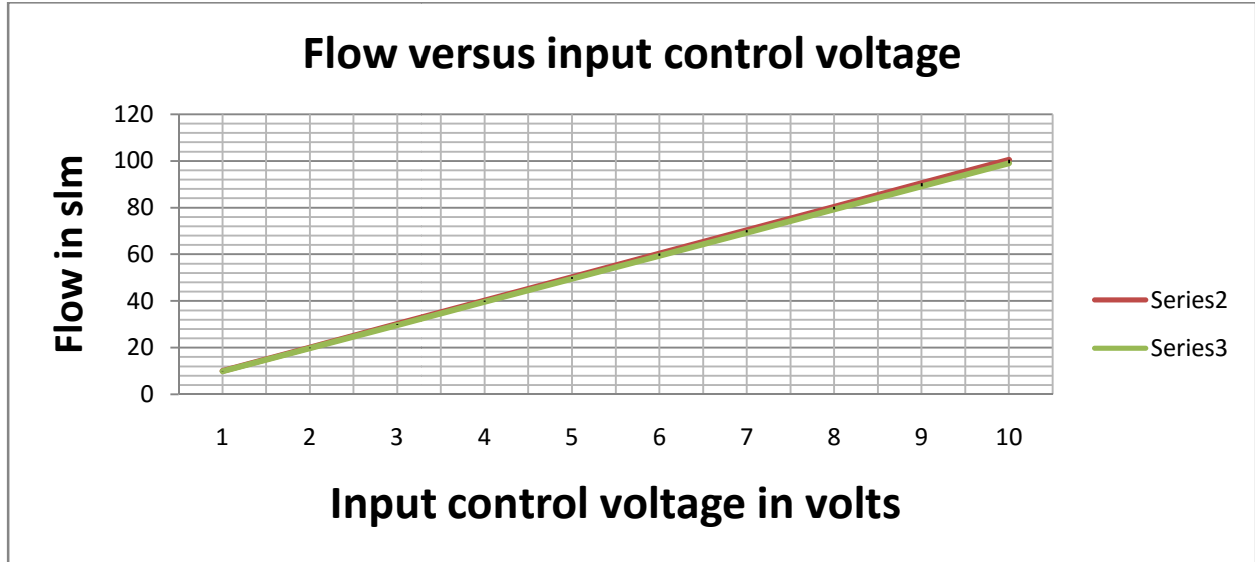
The high resolution displacement of the plunger that enables high accuracy process control is achieved by using a piezoelectric actuator and a precise encoder to measure and control the actuator displacement. A microprocessor integrated within an electronic circuit board converts the control signal to precise position of the plunger

Performance Benefits & advantages

Flow rates adjustable between 0% and 100% of rating flow rate can also be regulated by a range of electrical inputs (sensors, transmitters, PLC, etc.) via IPU Control Unit.

Suitable for use in liquids, air/gas, and low vacuum

- High resolution:
- Fast response time
- High application flexibility
- Safe operation in explosive ambient
- High accuracy
- High reliability
- Energy efficient
- Low production cost
- Easy to calibrate



[Series 2 increasing input signal](#)
[Series 3 decreasing input signal](#)

Specification

Operating pressure	0 to 10 bar
Orifice	1.2 mm, 2mm, 3mm
Back pressure	10% of the inlet pressure
Flow	0 – 10, 0-50, 0-100, 0-200 liters per minute
Voltage	12 V 24V
Power Consumption	< 4 W
Internal feedback sensor	Magnetic encoder
Hysteresis	< 0.5% FS
Linearity	< 0.5% FS
Sensitivity	< 0.5% FS
Repeatability	< 0.5% FS
Response time	< 10ms
Temperature range ambient	5 ÷ 50°C
Temperature range media	5 ÷ 50°C
Temperature range storage	-40 ÷ 75°C
Life expectancy (cycles)	10M
Leakage	<0.6ml/min @ pmax
Fluids	Air, inert gases, steam @ 140°C, non aggressive liquids

Weight: 75 grams

Dimensions

