



Acro 900 Series Electric Proportional Pinch Valves

Our standard pinch valves are designed to be either fully opened or closed, but with a growing number of applications where proportional and more accurate control of the fluid within the tube is required, Acro have developed the PE-900 Series motor controlled pinch valve. The pinch valve is controlled by a high force, high accuracy linear drive with integrated encoder.

System Features & Benefits

- > Provides a robust solution for accurate closed loop proportional control and precision fluid management
- > Dependable, compact and cost-effective solution
- > Pinch head designed for washdown and clean rooms
- > Controls high media/fluid pressures up to 75 psig (5.2 barg)
- > Flexible tubing sizes from 0.063" to 1.625" O.D. (1.6 mm to 41.3 mm)

Pinch Valve Benefits:

- > Designed for Bio-Pharma, Bio-Processing, Food and Beverage and Industrial applications where sterility and wash down procedures are needed.
- > Offer reliability and performance when working with hard or larger diameter tubing that requires stronger pinch forces.
- > Specifically designed for disposable tubing
- > Each model contains an easy snap-in tube slot for quick loading and unloading procedures
- > Optional safety caps are available on certain models to address operational hazards
- > Improve your batch yield efficiency and quality

Motor/Controller Benefits:

- > Designed for closed loop control for most accurate and predictable performance
- > Software pre-loaded for easy set-up and operation
- > RoHS/CE Compliant
- > High resolution encoder feedback
- > DIN rail mountable
- > Dynamic input response adapts to system changes



Typical proportional pinch valve markets and applications:

- > Biotechnology
- > Pharmaceuticals
- > Medical devices
- > Diagnostics
- > Bioreactors
- > Bioprocessing Single Use Technology
- > Filtration, TFF (Tangential Flow Filtration)
- > Process Equipment
- > Food and Beverage
- > Analyzers
- > Dispensing, Filling and Mixing: Resin, glue, epoxy, adhesive, paint, slurries, and other media
- > Chromatography
- > Chemical Processing Equipment

MORE DETAILS (PINCH VALVES):

MODEL NUMBER	PE902/PE903	PE904/PE906/PE908	PE912/PE916	PE926
MECHANICAL & ELECTRICAL				
Tube Size O.D. - Inch (mm)	0.063 to 0.188 (1.6 to 4.8)	0.158 to 0.500 (4.0 to 12.7)	0.500 to 1.000 (12.7 to 25.4)	1.000 to 1.625 (25.4 to 41.3)
Tube Wall Thickness Supported - Inch (mm)	0.016 to 0.063 (0.2 to 1.6)	0.031 to 0.063 (0.8 to 1.6)	0.063 to 0.125 (1.6 to 3.2)	0.125 to 0.188 (3.2 to 4.8)
Media Pressure Maximum - psig (barg)	30 (2.1)	45 (3.1)	60 (4.1)	75 (5.2)
Recommended Tubing Durometer	Up to 75 Shore A	Up to 75 Shore A	Up to 75 Shore A	Up to 75 Shore A
Motor Frame Size	NEMA 8	NEMA 11	NEMA 17	NEMA 23
Motor Configuration - Single/Double Stack	Single and Double	Single and Double	Single and Double	Single and Double
Pinch Force - Linear - Lbs (KgF)	Up to 10 (4.5)	Up to 30 (13.6)	Up to 50 (22.7)	Up to 100 (45.4)
Stroke - Inch (mm)	0.50 (12.7)	0.50 (12.7)	1 (25.4)	1.5 (38.1)
Ambient Temp Maximum - °C (°F)	50 (122)	50 (122)	50 (122)	50 (122)
Standard Supply Power - Voltage	24 VDC	24 VDC	24 VDC	24 VDC
Standard Supply Power - Amperage	1 Amp	2 Amps	Up to 2.5 Amps	Up to 5 Amps
Input Control (Analog) Signal Options	0-10 VDC; 4-20 mA	0-10 VDC; 4-20 mA	0-10 VDC; 4-20 mA	0-10 VDC; 4-20 mA
Safety Features	None	None	Optional Cap	Integrated
Recommended Panel Thickness - Inch (mm)	.093 to .250 (2.4 to 6.4)	.093 to .250 (2.4 to 6.4)	.093 to .250 (2.4 to 6.4)	.093 to .250 (2.4 to 6.4)
Weight - oz. (g) Aluminum Model	3.0 - 4.1 (85 - 117)	8.2 - 10.1 (232 - 285)	23.0 - 27.6 (653 - 782)	78.6 - 89.7 (2,230 - 2,530)
Weight - oz. (g) Stainless Steel Model	-	-	31.1 - 35.7 (882 - 1,011)	138 - 149 (3,915 - 4,230)
Length - Inch (mm)	3.30 - 3.73 (83.9 - 94.8)	4.23 - 4.67 (107.5 - 118.6)	7.64 - 8.15 (194.1 - 207.1)	10.95 - 11.67 (278.4 - 296.3)
Width and Depth - Inch (mm)	1.23 (31.2) DIA	1.94 (49.3) DIA	3.00 (76.2) SQ	4.25 (107.9) SQ
Encoder	Differential 500 Line	Differential 1000 Line	Differential 1000 Line	Differential 1000 Line
Stepper type	2-Phase 1.8 Step Angle	2-Phase 1.8 Step Angle	2-Phase 1.8 Step Angle	2-Phase 1.8 Step Angle
Standard Electrical Connections	2 wire DC power, 2 wire analog input signal			
Tube Loading	Side Load Snap in			
Tube Materials	C-Flex; PharMed; Tygon; Pharma; Silicone, Braid Reinforced			
Noise	50 dbA			
Compliance	RoHS, CE			

*Other tubing wall thickness and diameters can potentially be used.
 **Tube material dependent

MORE DETAILS (ELECTRIC MOTOR & CONTROLLER):

Easy setup and connections

- > Standard Power: 24 VDC, up to 5 Amps
- > Input Command Signal: 0-10 VDC and 4-20 mA
- > Serial and USB Connections
- > Motor, controller and input cables provided

