

Universal clamp-on tubing pinch valve: Intuitive, versatile, and reliable flow control

Data Sheet

ProConnex® Pinch Valves

ProConnex® Pinch Valves, powered by Artesyn® technology, enable reliable fluid control of tubing flow paths, regardless of their materials of construction. Intuitive tool-free clamp-on installation, executed in a simple 3-step sequence, enables quick and intuitive operation for very fine flow control.

The unique central pinch point in its specific encapsulated valve seat offers the highest closure reliability and consistency in flow output, even after multiple pinch cycles.

The valve bodies are manufactured from high end 316 L stainless steel, ensuring compliance with highest quality standards. The ProConnex® Pinch Valves are available in a variety of sizes with specific valve seats which allow the fitting of regular and braided tubing from 6.4 mm (¼ in.), up to 25.4 mm (1 in.) internal diameter (ID).



Features	Benefits
Intuitive, tool free installation	Operator ease of use Safe & reliable processing
Hemispherical closure	Highest closure resistance & reliability Consistent flow over pinching cycle Minimized tubing wear
Stem position visibility	Easy verification of valve position for operators
One hardware size, multiple tube materials	Versatility to use variety of tubing materials (regular or braided)
Clamp over existing single-use tube	Eliminate unnecessary junctions Reduced validation effort
Reusable valve body	Reduce consumable complexity & cost
Manual or pneumatic valve options*	Reduced operator errors with automated fluid control
Optional supportive bracket	Integration onto existing hardware

* Further actuator options can be found on the ProConnex® Pneumatic Actuator Assemblies for Pinch Valves Data Sheet.

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Applications

Applications range from simple transfer line control up to complex automated unit operations using either manual or pneumatic pinch valves.

Upstream

- Media and Buffer Preparation
- Cell Clarification Harvest
- Perfusion
- Filtration
- Mixing

Downstream

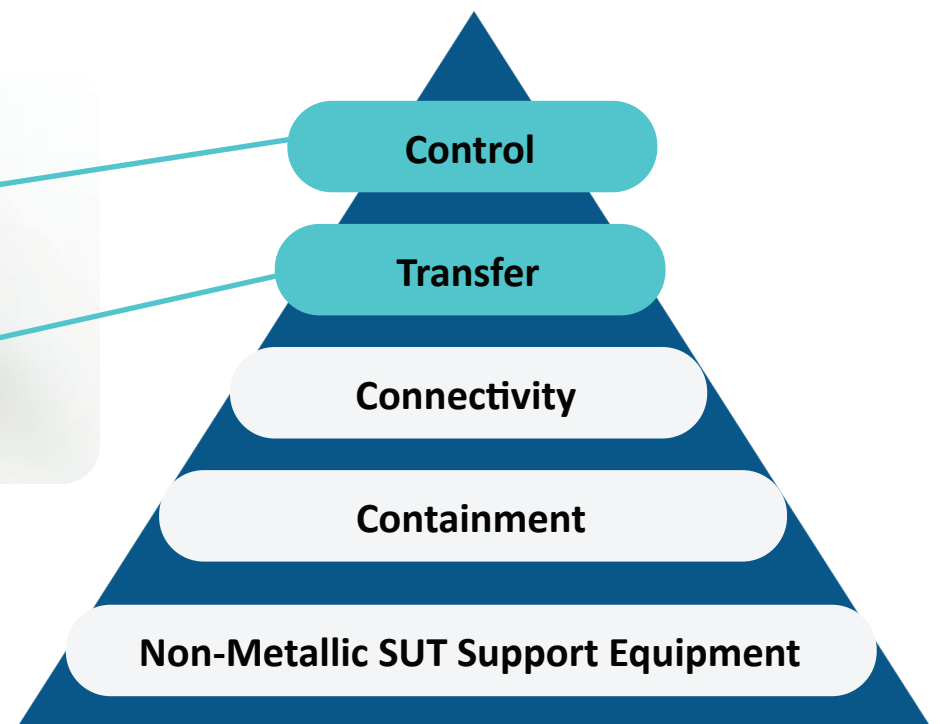
- Filtration
- Chromatography
- Buffer Exchange
- Virus Inactivation
- Concentration
- Fractionation
- Transfer
- Finish Filling
- Mixing



Single-Use Vertical Integration

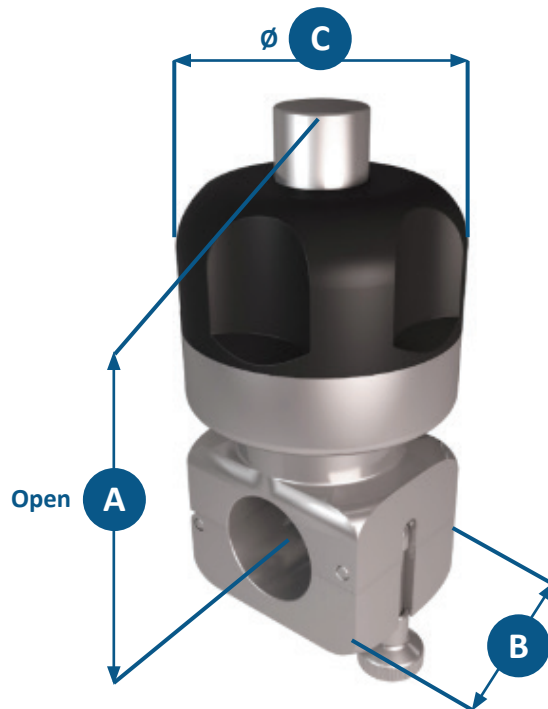
Repligen ProConnex® fluid management solutions enable you to control, transfer, contain, and connect throughout your entire workflow with nearly limitless customization options built to your unique needs. Our open-source approach to vertical integration offers supply chain management of your complete assembly, providing the flexibility and security of supply you need to move your process forward.

Further optimize your fluid path assembly with Repligen's extruded silicone tubing, manufactured to meet the stringent physical and quality requirements of biopharmaceutical applications, including pump tubing from .062 - 1.00 ID, platinum cured tubing in 50 and 65 durometer, and braid reinforced tubing from 0.125 - 1.00 ID.



Critical Parameters - Manual

Valve Size	A	B	C	Weight
1/4 in. (6.4 mm) x 7/16 in. (11.1 mm)	2.3 in (59 mm)	1 in (25 mm)	1.5 in (38 mm)	0.3 kg
1/4 in (6.4 mm) x 1/2 in (12.7 mm)	2.3 in (59 mm)	1 in (25 mm)	1.5 in (38 mm)	0.3 kg
3/8 in (9.5 mm) x 5/8 in (15.9 mm)	2.4 in (61 mm)	1 in (25 mm)	1.5 in (38 mm)	0.3 kg
1/2 in (12.7 mm) x 3/4 in (19.1 mm)	2.8 in (71 mm)	1 in (25 mm)	1.5 in (38 mm)	0.3 kg
1/2 in (12.7 mm) x 7/8 in (22.2 mm)	2.8 in (71 mm)	1 in (25 mm)	1.5 in (38 mm)	0.4 kg
3/4 in (19.1 mm) x 1 in (25.4 mm)	4.1 in (104 mm)	1.5 in (38 mm)	2.4 in (60 mm)	0.9 kg
3/4 in (19.1 mm) x 1 1/8 in (28.6 mm)	4.1 in (105 mm)	1.5 in (38 mm)	2.4 in (60 mm)	1.2 kg
1 in (25.4 mm) x 1 3/8 in (34.9 mm)	5.2 in (132 mm)	2.0 in (51 mm)	3.0 in (76 mm)	1.8 kg

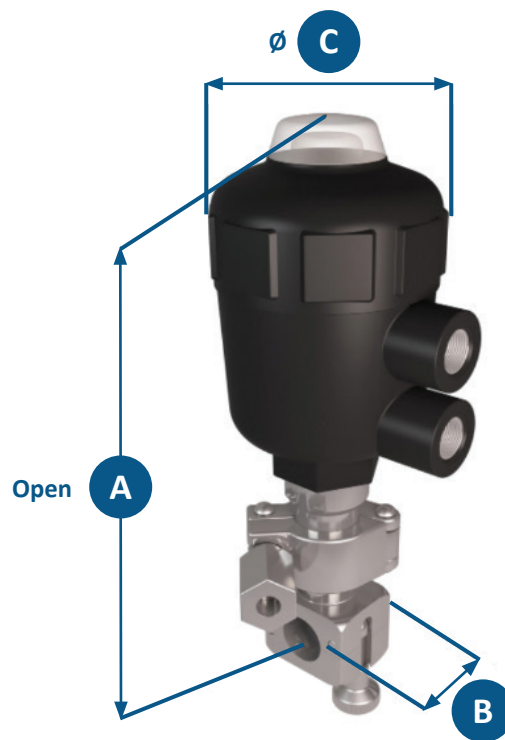


Critical Parameters - Pneumatic

Valve description	A	B	C*	Weight
1/4 in. (6.4 mm) x 7/16 in. (11.1 mm)	6.3 in (160 mm)	1 in (25 mm)	2.0 in (50 mm)	0.8 kg
3/4 in (6.4 mm) x 1/2 in (12.7 mm)	6.3 in (160 mm)	1 in (25 mm)	2.0 in (50 mm)	0.8 kg
3/8 in (9.5 mm) x 5/8 in (15.9 mm)	6.3 in (160 mm)	1 in (25 mm)	2.0 in (50 mm)	0.8 kg
1/2 in (12.7 mm) x 3/4 in (19.1 mm)	6.3 in (160 mm)	1 in (25 mm)	2.4 in (63 mm)	0.9 kg
1/2 in (12.7 mm) x 7/8 in (22.2 mm)	6.3 in (160 mm)	1 in (25 mm)	2.4 in (63 mm)	0.9 kg
3/4 in (19.1 mm) x 1 in (25.4 mm)	7.5 in (190 mm)	1.5 in (38 mm)	3.1 in (63 mm)	1.9 kg
3/4 in (19.1 mm) x 1 1/8 in (28.6 mm)	7.5 in (190 mm)	1.5 in (38 mm)	3.1 in (63 mm)	1.9 kg
1 in (25.4 mm) x 1 3/8 in (34.9 mm)	8.9 in (227 mm)	2.0 in (51 mm)	4.0 in (80 mm)	3.0 kg

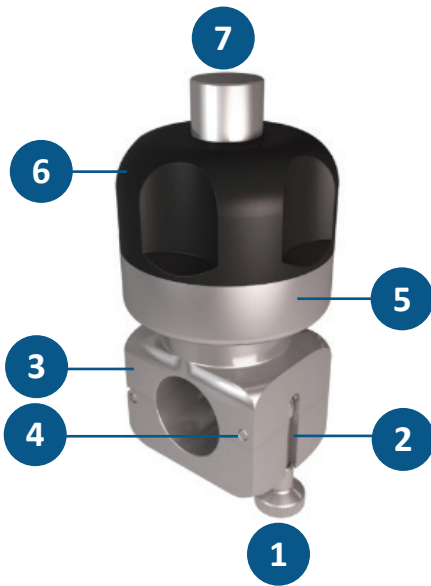
* Actuator size

Input	Position Feedback	Actuator Operating Pressure	Actuator Max Pressure	Air Port
Air	Position Indicator only	6 bar/85 - 90 psi	10 bar/150 psi	G 1/4" for all sizes



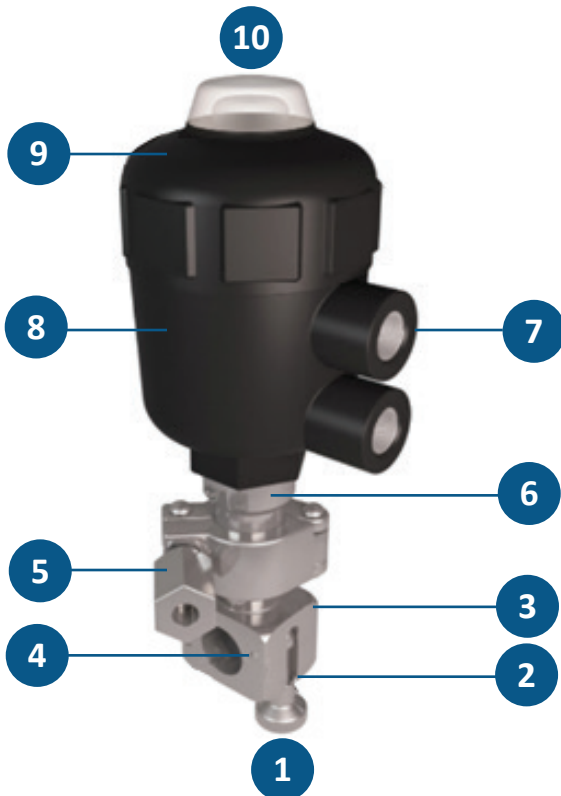
Materials of Construction

Manual Pinch Valve



Number	Component	Material
1	Lock knob	Stainless steel 316 L
2	Swing arm	Stainless steel 18-8
3	Valve body	Stainless steel 316 L
4	Body pins	Stainless steel 316 L
5	Lower handle	Stainless steel 316 L
6	Handle	Polyetherimide (PEI)
7	Stem	Stainless steel 316 L

Pneumatic Pinch Valve



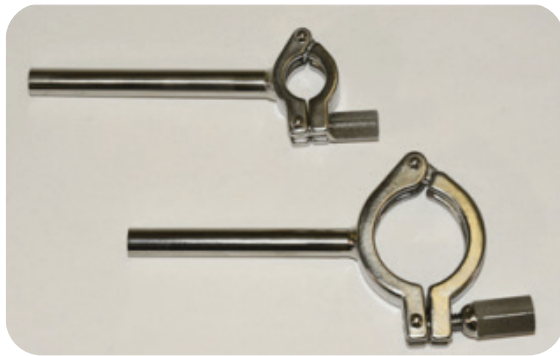
Number	Component	Material
1	Lock knob	Stainless steel 316 L
2	Swing arm	Stainless steel 18-8
3	Valve body	Stainless steel 316 L
4	Body pins	Stainless steel 316 L
5	Assembly clamp	Stainless steel 304
6	Actuator body	Stainless steel 316 L
7	Air Ports 1/4 in BSP	Stainless steel 304
8	Actuator housing	Polyamide (PA)
9	Actuator cap	Polyamide (PA)
10	Indicator lens	Polycarbonate (PC)

Accessories - Brackets and Handles

Brackets

Additional bracket’s purpose is to simplify integration into existing hardware.

Description	Matching Valve Size	Valve Version	Part Number
Mini sanitary ½ in clamp with rod bracket	1/4 in, 3/8 in, 1/2 in, 3/4 in	Pneumatic Only	ARTD001031
Sanitary 1 ½ in clamp with rod bracket	1 in	Pneumatic Only	ARTD001030
Universal bracket	All	All	ARTGA005515



Handles

Optional handle is to ease operating open & close state of the manual valve.

Description	Matching Valve Size	Valve Version	Part Number
PEI 38 Series Manual Pinch Valve Handle Adapter	1/4 in, 3/8 in, 1/2 in	Manual Only	PVU38HA
PEI 60 Series Manual Pinch Valve Handle Adapter	3/4 in	Manual Only	PVU60HA
PEI 76 Series Manual Pinch Valve Handle Adapter	1 in	Manual Only	PVU76HA



Ordering Information - Valves Hardware

Tubing Type (ID x OD)	Manual Valve Part Number	Pneumatic Valve Part Number*
1/4 in (6.4 mm) x 7/16 in (11.1 mm)	PVS0250X043716	PVS0250X043719
1/4 in (6.4 mm) x 1/2 in (12.7 mm)	PVS0250X050016	PVS0250X050019
3/8 in (9.5 mm) x 5/8 in (15.9 mm)	PVS0375X062516	PVS0375X062519
1/2 in (12.7 mm) x 3/4 in (19.1 mm)	PVS0500X075016	PVS0500X075019
1/2 in (12.7 mm) x 7/8 in (22.2 mm)	PVS0500X087516	PVS0500X087519
3/4 in (19.1 mm) x 1 in. (25.4 mm)	PVS0750X100016	PVS0750X100019
3/4 in (19.1 mm) x 1 1/8 in (28.6 mm)	PVS0750X112516	PVS0750X112519
1 in (25.4 mm) x 1 3/8 in (34.9 mm)	PVS1000X137516	PVS1000X137519

* Further actuator options can be found on the ProConnex Pneumatic Actuator Assemblies for Pinch Valves Data Sheet.

Other sizes are available upon request.

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