

Metering Valves

High Resolution Control Valves and
Standard Cartridge Valves

Customer Value Proposition:

Porter metering valves are designed for extremely precise control in low flow gas and liquid applications. They are available as valve cartridges, integrally mounted in flowmeters and in-line valve assemblies with straight or angle patterned bodies. All in-line valve assemblies have 1/8" female NPT inlet and outlet ports.



High Resolution Control Valves

The HR Series High Resolution Control Valves contain unique design features that make them the ultimate choice for precise low flow control.

- Spring loaded, non rising adjustment stem with 56-pitch thread provides smooth, non-reversing flow characteristics and 15-turn resolution.
- Non-rotating stainless steel valve pin with precision ground flat gives exact control.
- Valve pin o-ring guarantees positive shut-off without stem damage.
- Self-lubricating orifice liner assures long life
- Seven available needle tapers expand valve capacity



Standard Cartridge Valves

Porter's Standard Cartridge Valves (SCV) are economical, multi-purpose valve assemblies. Available in 3 needle tapers, they are ideal for a wide spectrum of low flow applications.

Specifications

Capacities for High Resolution Control Valves

Needle Size (HRVC)		0	1	2	3	4	5	6
Max Flow	cc/min.- Helium	95	220	450	1250	3600	12500	50000
	cc/min.- Water	2	6	15	30	100	200	900

Capacities for Standard Cartridge Valve

Needle Size (SCV)		1	2	3
Max Flow	cc/min.- Helium	25000	35000	55000
	cc/min.- Water	700	1000	1200

Note: Capacities are typically measured with water or helium at 10 psig supply pressure and atmospheric pressure downstream. Capacities vary for different fluids and operating conditions.

Ratings: Maximum Operating

	Temperature °F	Pressure PSIG
Brass Model	160	250
Stainless Steel Model	250	250

Connections: 1/8" Female NPT (integral)

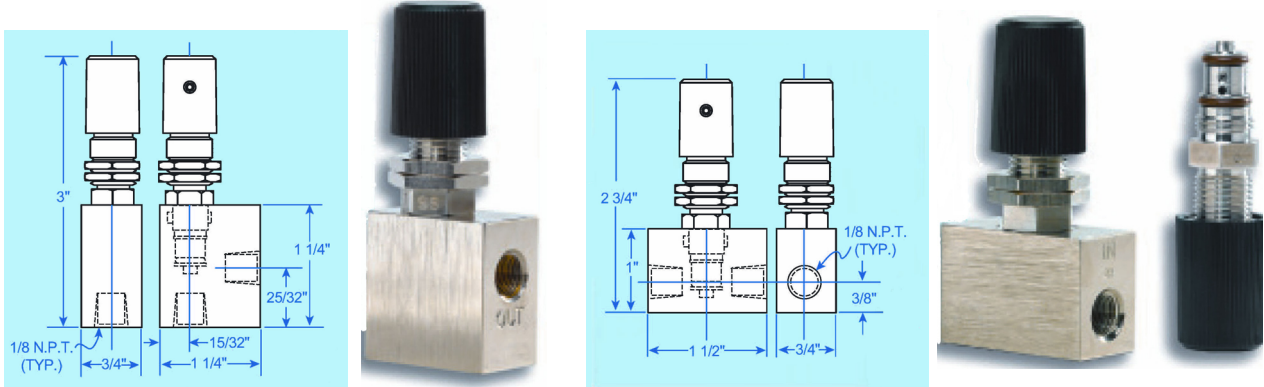
Materials of Construction

Model	Body	Valve Pin	Valve Pin Holder	O-Rings	Orifice
HRCV Brass	Nickel Plated Brass	316 SS	Brass	Buna N	Brass w/ Fluorosint® liner
HRCV Stainless Steel	316 SS	316 SS	316 SS	Viton	316 SS w/ Fluorosint® liner
SCV Brass	Nickel Plated Brass	316 SS	316 SS	Buna N	Brass
SCV Stainless Steel	316 SS	316 SS	316 SS	Viton	316 SS

High Resolution Control Valves

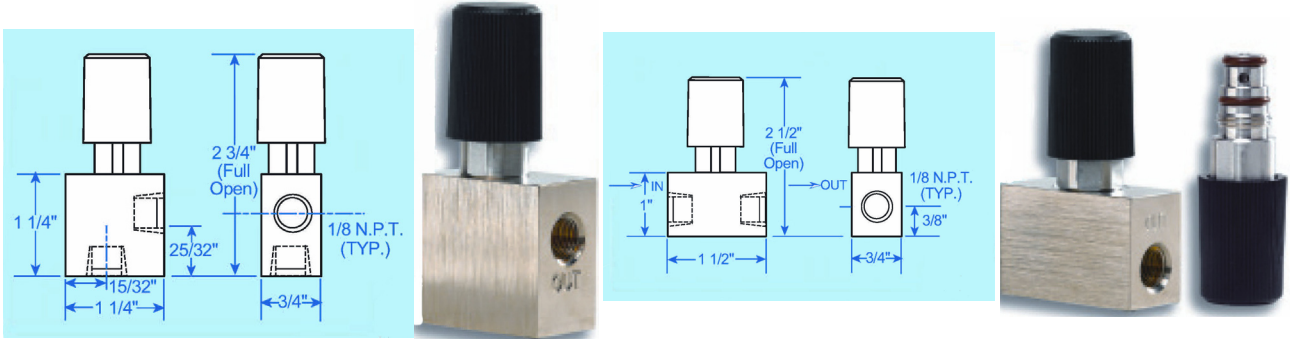
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Torque Guard

Porter standard cartridge valves are available with the exclusive torque guard stop mechanism. Torque guard eliminates stem damage caused by over tightening of the valve at shut-off. The torque guard system consists of a specifically designed knob with a stop pin pressed into an aluminum knob insert and a mechanical detail on the packing nut that engages the stop pin and prevents clockwise rotation beyond a predetermined point. During final test, the knob is adjusted so that the stop pin and packing nut engage precisely at shut-off. This combination eliminates the possibility of over tightening and the resultant stem damage.

Ordering Information

<p>Ordering Information Model Number and Description</p> <p>Control Valve Example:</p> <div style="text-align: center; border: 1px solid white; padding: 5px; display: inline-block;"> HRCV B 1 S </div> <p>Basic Model</p> <p>HRCV (High Resolution) SCV (Standard Cartridge)</p> <p>Body Material</p> <p>B - Brass S - Stainless Steel</p> <p>Needle Size</p> <p>0 thru 6 (HRCV only) 1 thru 3 (SCV only) 1 - TG (Torque Guard Taper 1) 1 - TG (Torque Guard Taper 2)</p> <p>Connection Configuration</p> <p>A - Angle S - Straight</p>	<p>Valve Cartridge Only Example:</p> <div style="text-align: center; border: 1px solid white; padding: 5px; display: inline-block;"> SC 3 B </div> <p>Valve Configuration</p> <p>HR (High Resolution) SC (Standard Cartridge)</p> <p>Needle Size</p> <p>0 thru 6 (HR only) 1 thru 3 (SC only) 1 - TG (Torque Guard Taper 1) 1 - TG (Torque Guard Taper 2)</p> <p>Material</p> <p>A - Aluminum B - Brass S - Stainless Steel</p>	<p>To order, specify:</p> <ul style="list-style-type: none"> Model Number Fluid Flow Rate Operating Pressure (inlet and outlet) Operating Temperature Materials of Construction
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WARNING

FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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