

### DESCRIPTION

The SCV-85 Research Control® Valves are compact control valves designed to meet the manufacturing standards established by the 3A Symbol Council.

### APPLICATIONS

Valves of the SCV-85 type are well suited to automated control systems found in biotechnology, pharmaceutical and food processes.

- Pressure
- Temperature
- Product injection
- Flow control in fermentation reactors
- Control of gas blankets in closed vessels
- Catalyst, defoamer and additive initiation

### MATERIALS OF CONSTRUCTION

<b>Size</b>	½ inch, ¾ inch, 1 inch and 1 ½ inch
<b>Body - Bonnet</b>	316/316L Stainless Steel Barstock
<b>Innervalve</b>	316/316L Stainless Steel Barstock Trims Characteristics: Equal Percentage, Linear or Special
<b>Clamps</b>	304 or 316 Stainless Steel
<b>Gaskets</b>	Standard: Viton (FKM) Optional: Silicone, EPDM or Kalrez
<b>“O” Rings</b>	Standard: Viton (FKM) Optional: Silicone, EPDM or Kalrez
<b>Actuator Housing</b>	Standard: Epoxy Coated Aluminum Optional: 316/316L Stainless Steel

### STANDARD FEATURES

- Manufactured to 3A Symbol standards
- Self-draining design
- Quick disassembly with clamps
- Choice of ends: butt-weld, Tri-Clamp®
- Designed for STEAM-IN-PLACE and CLEAN-IN-PLACE
- Internal finish: 16 Ra



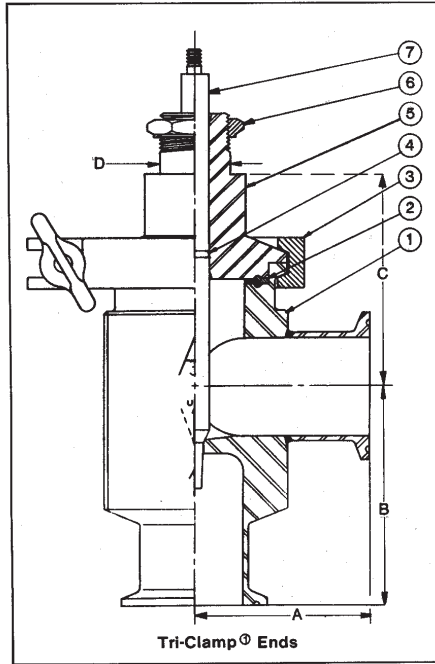
Image shown with optional stainless steel actuator

### ACTUATOR CHOICES

<b>Standard</b>	Air-to-open, fail close Air-to-close, fail open
<b>Optional</b>	316 Stainless Steel Actuator
<b>Optional</b>	ATO or ATC with integral top mounted positioner
<b>Optional</b>	ATO or ATC with side mounted positioner
<b>Signal Ranges</b>	3-15#, 3-27#, 6-30# (3-9#, 9-15# with positioner)
<b>Electronic Actuator</b>	We offer a wide choice of electric actuators up to 200 pounds of thrust.

### OTHER AVAILABLE VALVES

Research Control Valves manufactures many different models of both standard and specialty control valves, conventional as well as sanitary designs. If your needs for small control valves can be served with a custom designed valve, please contact your area representative for assistance.



**Description of Items**

1. Body
2. Body-Bonnet gasket
3. Body-Bonnet clamp
4. "O" ring
5. Bonnet
6. Yoke locknut
7. Inner valve

**Dimensions**

	1/2"	3/4"	1"	1 1/2"
A:	1.56"	1.56"	2.75"	2.75"
B:	1.56"	1.69"	2.62"	2.87"
C:	2.75"	2.62"	3.12"	2.87"
D:	.875" All sizes			
Stroke Length:	.562" All sizes			

**Press./Temp. Rating**

300 PSI @ 75 Deg. F  
 150 PSI @ 300 Deg. F

**INNERVALVE CHART**

Valve Size	Trim Designation	CV	KV	Nom. Rangeability		Orifice Port Diameter	Port Area (in. 2)
		Coefficient		Linear	(=%)		
1-1/2"	20	20.00	17.24	40:1	60:1	1.00"	.7854
1-1/2"	15	15.00	12.93	40:1	60:1	1.00"	.7854
1", 1-1/2"	10	10.00	8.62	40:1	60:1	.75"	.4420
1", 1-1/2"	8	8.00	6.90	40:1	60:1	.75"	.4420
1", 1-1/2"	6	6.00	5.17	40:1	60:1	.75"	.4420
3/4", 1", 1-1/2"	5	5.00	4.31	40:1	60:1	.50"	.1964
3/4", 1", 1-1/2"	4	4.00	3.45	40:1	60:1	.50"	.1964
1/2", 3/4", 1", 1-1/2"	A	3.00	2.59	40:1	60:1	.50"	.1964
1/2", 3/4", 1", 1-1/2"	B	2.00	1.72	40:1	60:1	.375"	.1105
1/2", 3/4", 1", 1-1/2"	C	1.25	1.08	40:1	60:1	.375"	.1105
1/2", 3/4", 1", 1-1/2"	D	0.80	0.69	40:1	60:1	.375"	.1105
1/2", 3/4", 1", 1-1/2"	E	0.50	0.43	40:1	60:1	.375"	.1105
1/2", 3/4", 1", 1-1/2"	F	0.32	0.28	30:1	40:1	.156"	.0192
1/2", 3/4", 1", 1-1/2"	G	0.20	0.17	30:1	40:1	.156"	.0192
1/2", 3/4", 1", 1-1/2"	H	0.13	0.11	30:1	40:1	.156"	.0192
1/2", 3/4", 1", 1-1/2"	I	0.08	0.07	30:1	40:1	.156"	.0192
1/2", 3/4", 1", 1-1/2"	J	0.05	0.04	30:1	40:1	.156"	.0192

**AVAILABLE OPTIONS**

- Manual Handwheel
- Filters
- Positioners
- I/P Transducers
- Certifications
- Electric Actuator
- Limit Switches
- Regulators

Custom bracketing available with each option.

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