

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

Body and Bonnet	316/316L stainless steel barstock	
Innervalue	316/316L stainless steel barstock trims Characteristics: equal percentage, linear or special	
Clamps	304 or 316 stainless steel	
Gaskets	Standard Optional	Viton® (FKM) Silicone, EPDM or Kalrez®
O-Rings	Standard Optional	Viton (FKM) Silicone, EPDM or Kalrez
Actuator Housing	Standard Optional	Epoxy-coated aluminum 316/316L stainless steel

ACTUATOR CHOICES

Standard	Air-to-open, fail close (ATO) Air-to-close, fail open (ATC)
Optional	316 stainless steel actuator
Optional	ATO or ATC with integral top mounted positioner
Optional	ATO or ATC with side mounted positioner
Signal Ranges	3-15#, 3-27#, 6-30# (3-9#, 9-15# with positioner)
Electronic Actuator	Electric actuators up to 200 pounds of thrust



Shown with optional stainless steel actuator

STANDARD FEATURES

- Sizes: 1/2", 3/4", 1" and 1-1/2"
- Pressure vs temperature rating:
300 psi @ 75° F, 150 psi @ 300° F
- 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

OPTIONS

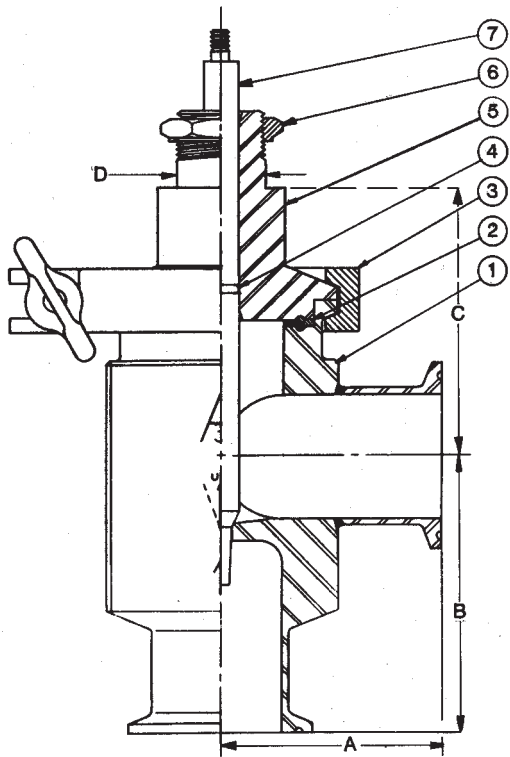
- | | |
|---|--|
| <input type="checkbox"/> Manual Handwheel | <input type="checkbox"/> Certifications |
| <input type="checkbox"/> Filters | <input type="checkbox"/> Electric Actuator |
| <input type="checkbox"/> Positioners | <input type="checkbox"/> Limit Switches |
| <input type="checkbox"/> I/P Transducers | <input type="checkbox"/> Regulators |

Custom bracketing available with each option.

OTHER VALVES

Badger Meter® manufactures many 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.

DIMENSIONS



Item	Description
1	Body
2	Body – bonnet gasket
3	Body – bonnet clamp
4	O-ring
5	Bonnet
6	Yoke locknut
7	Inner valve

Dimensions in Inches (mm)

Size	A	B	C	D	Stroke
1/2 in. (13 mm)	1.56 in. (40 mm)	1.56 in. (40 mm)	2.75 in. (70 mm)	0.875 in. (22 mm)	0.562 in. (14 mm)
3/4 in. (19 mm)		1.69 in. (43 mm)	2.62 in. (67 mm)		
1 in. (25 mm)	2.75 in. (70 mm)	2.62 in. (67 mm)	3.12 in. (79 mm)		
1-1/2 in. (38 mm)		2.87 in. (73 mm)	2.87 in. (73 mm)		

INNERVALVE CHART

Valve Size	Trim Designation	CV	KV	Nom. Rangeability		Orifice Port Diameter	Port Area (in. ²)
		Coefficient		Linear	(=%)		
1-1/2 in.	20	20.00	17.24	40:1	60:1	1.00"	0.7854
	15	15.00	12.93	40:1	60:1	1.00"	0.7854
1 in. and 1-1/2 in.	10	10.00	8.62	40:1	60:1	0.75"	0.4420
	8	8.00	6.90	40:1	60:1	0.75"	0.4420
3/4 in., 1 in., and 1-1/2 in.	6	6.00	5.17	40:1	60:1	0.75"	0.4420
	5	5.00	4.31	40:1	60:1	0.50"	0.1964
1/2 in., 3/4 in., 1 in., and 1-1/2 in.	4	4.00	3.45	40:1	60:1	0.50"	0.1964
	A	3.00	2.59	40:1	60:1	0.50"	0.1964
	B	2.00	1.72	40:1	60:1	0.375"	0.1105
	C	1.25	1.08	40:1	60:1	0.375"	0.1105
	D	0.80	0.69	40:1	60:1	0.375"	0.1105
	E	0.50	0.43	40:1	60:1	0.375"	0.1105
	F	0.32	0.28	30:1	40:1	0.156"	0.0192
	G	0.20	0.17	30:1	40:1	0.156"	0.0192
	H	0.13	0.11	30:1	40:1	0.156"	0.0192
	I	0.08	0.07	30:1	40:1	0.156"	0.0192
J	0.05	0.04	30:1	40:1	0.156"	0.0192	

Control. Manage. Optimize.

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