

General Description

The Model VC-350A Series Control Valves control hot or chilled water in heating or air conditioning systems. The WEI 3-way valves may be piped as mixing or diverting service, and used for two position or throttling applications.

Actuator Specifications:

Diaphragm Area: 50 sq in. (323 sq cm)
Diaphragm material: Replaceable beaded molded

neoprene

Diaphragm Pressure: 30 psi (207 kPa) max.

Service Connection: 1/8" FNPT

Range (nominal): 5-10 psi (34 to 69 kPa)

standard,

3-8 & 8-13 psi (21-55 & 55-

90 kPa) available

Max. Stroke: 1" (25.4 mm)

Ambient Temp: -20 to 220° F (-29 to 104° C)

Action: Air-to-push-down Housing: Die cast aluminum

WEI Valve Specifications:

Type: 3-way

Flanges: ANSI Class 125

Body: Cast Iron
Trim: Forged Brass
Stem: Stainless Steel

Packing: Spring-loaded TFE/EPDM

Wiper O-Ring EPDM

Max. Pressure: 200 psi up to 150° F

(1.38 MPa up to 65° C) 165 psi up to 281° F (1.14 MPa up to 138° C)

Seat Leakage: ANSI Class III

Process Temp 20 to 281° F (-7 to 138° C)

Max. Pressure Drop: 35 psi (241 kPa) Stroke: 1" (25.4 mm)

Size		2-1/2"	3"	4"
Cv	Port A	95	120	190
	Port B	115	120	190

Sales Manual Section 170 Product Specification Model VC-350A



Model VC-350A 50 Sq In Diaphragm Actuated Control Valve



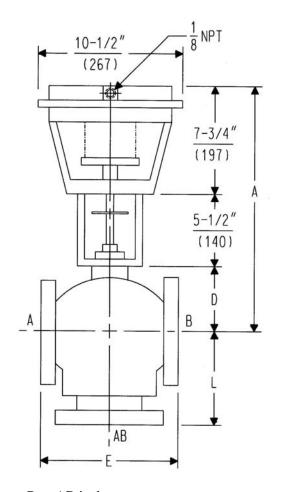
Sizes 2-1/2", 3", & 4"

Features and Benefits:

- Rugged die cast aluminum housing
- Replaceable beaded molded neoprene diaphragm
- Adjustable start-to-stroke point
- Excellent close-off capability with WEI valve up to 35 psi (241 kPa)
- Patented balanced design

invensys.

Dimensions:



WEI	DIMENSIONS				
VALVE SIZE	A	D	E	L	
2-1/2"	14-7/16	4-3/16"	8-9/16"	5-7/16"	
	(443)	(106)	(217)	(138)	
3"	17-5/8	4-3/8"	9-1/2"	6-3/8"	
	(448)	(111)	(241)	(162)	
4"	18-5/16	5-1/16"	11-1/2"	8-7/16"	
	(465)	(129)	(292)	(214)	

INCH (mm)

Port AB is the common port.

Port A is open when the stem is down (high end of actuator range).

Port B is open when the stem is up (low end of actuator range).

CAUTION – EPDM components (packing & wiper o-ring) are not suitable for use with petroleum-based compounds.

VALVE SIZING

All Robertshaw valve capacities are stated in terms of Cv. Use of the flow coefficient Cv offers a standard approach for valve sizing regardless of type. Cv ratings for Robertshaw valves are determined experimentally in accordance with procedures recommended by the Fluid Controls Institute.

Valve sizes may be calculated using the Cv formulas or Robertshaw's Flo-Rule (valve sizing slide rule) for any set of flow conditions.

When capacity requirements (pounds of steam per hour, gallons of water per minute, cubic feet of gas per hour, etc.), the supply pressures, pressure drops, and nature of the fluid are known, the numerical Cv value can be obtained. This can be compared with the Cv ratings tabulated for the various valve styles in the "Valve Characteristics" tables in this product specification or on the Cv tables furnished with the Flo-Rule.

MODEL NUMBER CODING:

VC-350A - 5 - WEI - 300 - AA

Basic Control Valve Series								
Actuat	or Ran	ge						
	3	=	3 to 8 psi (21 to 55 kPa)					
	5	=	5 to 10 psi (34 to 69 kPa) Standard					
	8	=	8 to 13 psi (55 to 90 kPa)					
Valve S	Style -							
	WEI	=	3-way Cast Iron Type WEI					
Valve S	Size &	Connec	tions					
	250	=	2-1/2" Class 125 Flanged Ends					
	300	=	3" Class 125 Flanged Ends					
			4" Class 125 Flanged ends					
Positio	ner & l	I/P Tra	nsducer (assembled to actuator)					
	A	=	None					
Pressu	Pressure Reducing Valve (assembled to actuator)							
	A	=	None					

ORDERING INFORMATION

When ordering specify:

- 1. Quantity.
- 2. Control Valve Model Number per above.
- 3. Medium through the valve.
- 4. Any special characteristics of flowing medium.
- 5. Supply pressure to valve.
- 6. Pressure drop.
- 7. Shipping & invoicing instructions.



U.S.A. & Canada Robertshaw Industrial Products 1602 Mustang Drive Maryville, Tennessee 37801 Phone: (865) 981-3100 Fay: (865)

Phone: (865) 981-3100 Fax: (865) 981-3168 http://www.robertshawindustrial.com

Exports

Invensys Controls 1701 Byrd Avenue P.O. Box 26544

Richmond, Virginia 23261-6544

Phone: (804) 756-6500 Fax: (804) 756-6561

Q-4175 (10/05)

Printed in U.S.A.