

V-4334 Three-Way Cast Brass Valve for 5/8 in. O.D. Tubing S.A.E. 45° Flared Connections

The V-4334 three-way valve is designed to accurately regulate the flow of hot or cold water in small room air conditioning units. The V-3000 actuator has a die cast aluminum housing and a molded, synthetic rubber diaphragm that provides a constant effective area through the valve travel. By loosening a single set screw, the complete actuator assembly can be removed, without disturbing the remainder of the valve assembly.

The valve has two modulating plugs which provide a characterized relationship between valve lift and flow at a constant pressure drop.

Operation

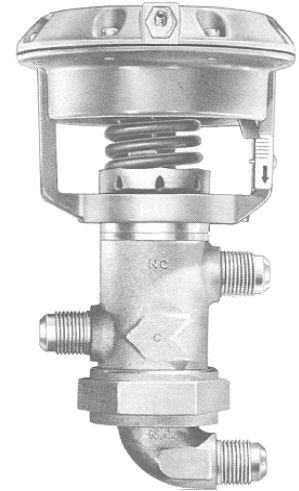
Air pressure from a pneumatic controller is applied to the diaphragm of the actuator which moves the piston against the forces of the internal spring and the fluids. The piston will move the valve plugs to a position where the diaphragm pressure and fluid forces are balanced against the spring force. These fluid forces will cause the operating range to shift from the nominal spring range.

A V-9502 Positioner can be used with this valve where sequential operation is desired or positioning power is required. For adjusting instructions, refer to V-9502 Product Data.

Installation

It is recommended that the V-4334 be mounted in an upright position in a conveniently accessible location. Sufficient clearance must be allowed for actuator and trim removal. The V-4334 must be piped with the flows in the directions indicated by the arrows.

Note: Control air tubing must be disconnected before servicing. Failure to do so may result in personal injury.



V-4334 with V-3000 Actuator and Valve Position Indicator

Specifications

Product	V-4334 Three-Way Valve		
Body Rating	250 PSIG (1750 kPa)		
Max Temperature	281F (140°C)		
Body Style & Sizes	3-Way — 5/8 in. Connections (N.P.T.)		
Normal Position	Upper Port	Closed — Control Signal Opens	
	Lower Port	Open — Control Signal Closes	
Control Air Connection	Barbed Fitting for 5/32 or 1/4 in. O.D. Polytubing		
Max Control Pressure	30 PSIG (210 kPa)		
Spring Ranges (Nominal)	4 to 8 or 9 to 13 PSIG (28 to 56 or 63 to 91 kPa)		
Flow Characteristic	Characterized Modulating		
Material	Trim	Stem	Stainless Steel
		Plug	Brass
	Body	Cast Brass with Natural Finish	
	Actuator	Die Cast Aluminum with Enamel Finish	
Ambient Temp. Limits	-10 to 150F (-23 to 66°C)		
Max Storage Temp.	150F (66°C)		
Accessories (Order Separately)	V-9502 Positioner (V-9502-15) Valve Position Indicator (V-3000-10)		

*The performance specifications for this equipment are nominal and conform to generally acceptable industry standards. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

Application and Drawing Identification

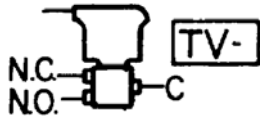


Table 1: Nominal Valve Properties

Size in.	C _v /k _v Factor	Spring Range PSIG kPa	V-4334 Code Number
			with V-3000 Actuator
5/8	4.7	4-8	1001
		28-56	
	4	9-13	1002
		63-91	

Dimensions in./mm

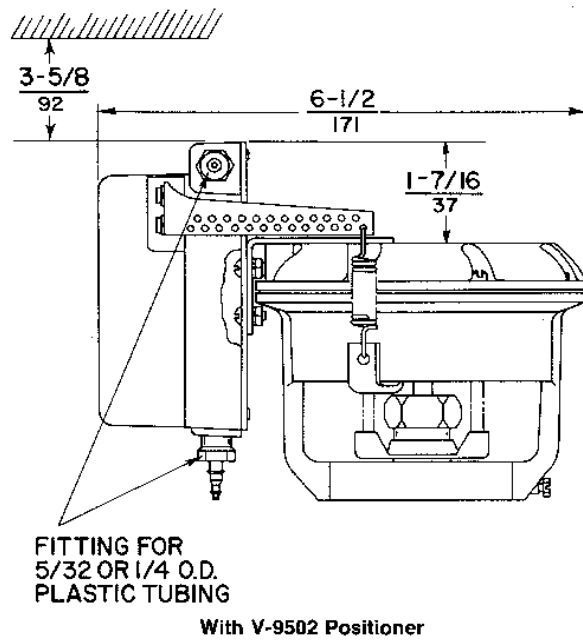
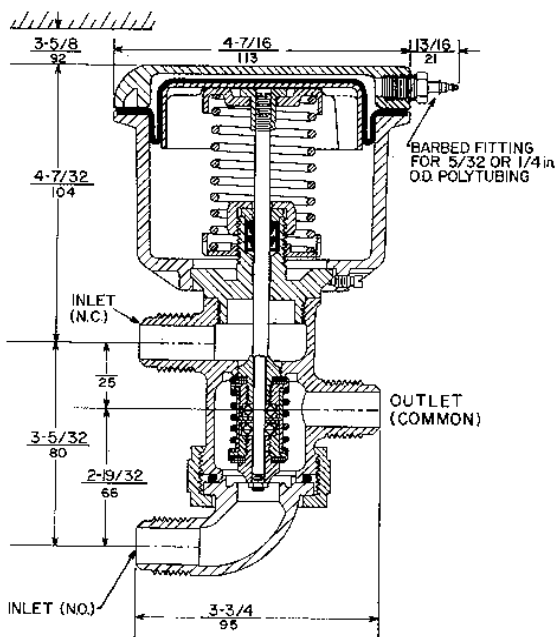


Table 2: Repair Parts

Item	Code Number	Description
Spring Kits*	V-4332-6001	Spring Kit, 4-8 psig, 5/16 in. stroke for V-3212, V-3970, V-4322 (1/2 and 3/4), V-4332, V-4333 (1/2), V-4334 (5/8), and VT Valve with V-3000-1 or V-3000-2 Actuator.
	V-3752-6022	Spring Kit, 9-13 psig, 5/16 in. stroke for V-3011, V-3020, V-3212, V-3752, V-3755, V-3970, V-4322 (1/2 and 3/4), V-4334 (5/8), V-4332, V-4333, V-5416, V-7416 (1/2), V-6143 (3/8 and 3/4), and VT Valve with V-300-1 or V-3000-2 Actuator.
Reconditioning Kits**	V-4334-6001	Reconditioning Kit, .625(5/8) Flare 3-Way Mixing Valve, Cv=4.7.
Packing Kit	V-9999-608	Single Pack; contains O-rings, crocus cloth, assembly tool, gland nut liner, guide, extractor/installer, ring pack assembly, follower, grease, and instructions.

* Spring Kits contain: spring, upper and lower spring plates, stem extension, lock screw, and instructions.

** Reconditioning Kit contains: valve stem, guide, packing nut, ring pack assembly, centerpiece flare, plugs, discs, v-rings, spring, retainers, holders, O-ring, nut, spacer, adhesive, grease, extractor/installer, and instructions.

Note: For actuator repair parts, refer to the appropriate actuator product bulletin.

Notes



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