

Description

The VEP-3420 and VEP-3421 series are 3-way diverting, zone valves available in 3/4" and 1" line sizes designed to regulate hot or chilled water in VAV terminal unit reheat coils, fan coil units and induction units.

The compact size allows easy installation in small enclosures. The fully enclosed electric actuator has heat resistant lead-wires and is readily installed or removed, via a screw-on ring nut.

These valves utilize three different types of actuators:

The MEP-3001 (24VAC) is used for systems requiring 2-position fail-safe (full flow) operation. The unit utilizes a PTC thermal element for dependable long-life and noise-free operation.

The MEP-3010 is a tri-state actuator which requires separate 24 VAC signals to drive the actuator open or closed. With both signals off, the actuator is motionless.

The MEP-3011 proportional actuator requires a 24 VAC power source and a 2 to 10 VDC input signal to drive the actuator. The proportional actuator powers down at the full open or closed position. The proportional actuator also recalibrates the closed to open stroke to the control signal after 4000 cycles, or after a power failure.

Features

- ◆ Available in with three types of actuators
- ◆ Fully enclosed electric actuator
- ◆ Compact size

Models

The following models are available:

VEP-34200186	3/4"; 2-Position, Fail-safe
VEP-34210186	1"; 2-Position, Fail-safe
VEP-34200195	3/4"; 2 to 10 VDC
VEP-34200196	3/4"; Tri-State
VEP-34210195	1"; 2 to 10 VDC
VEP-34210196	1"; Tri-State



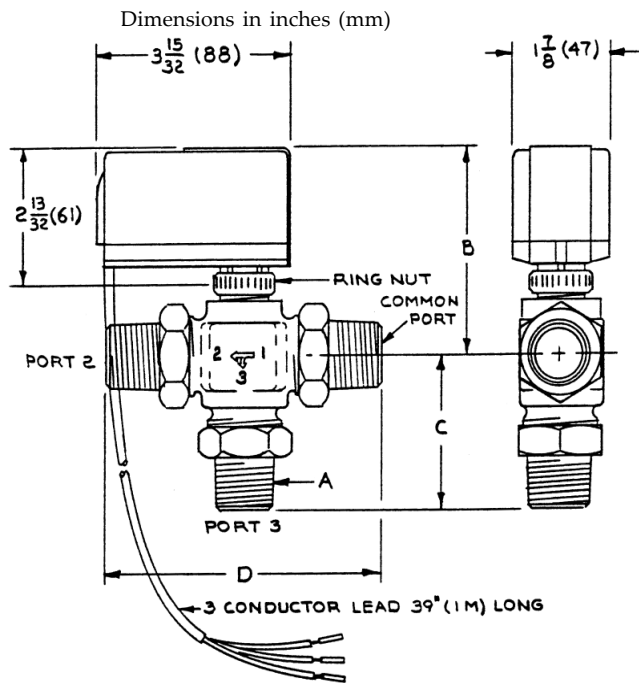
Model shown with 3 compression unions.

Accessories/Repair Parts

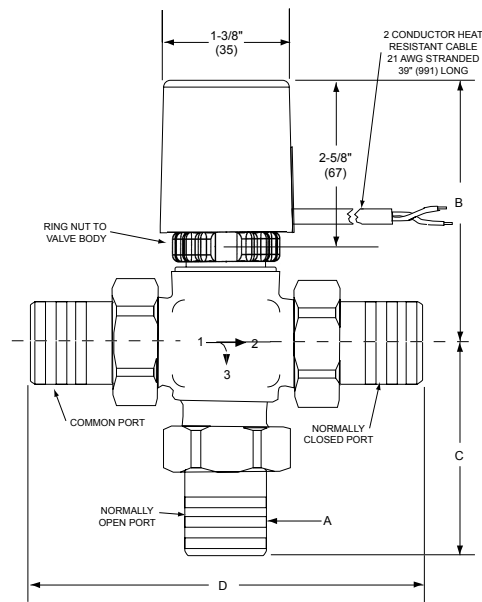
The following accessories and repair parts are available for these models:

HMO-4530	Flexible conduit connector for MEP-3001
HPO-5017	3/4" union gasket
HPO-5018	1" union gasket
HPO-5021	3/4" union nut
HPO-5022	1" union nut
HPO-5026	3/4" MPT compression union
HPO-5027	1" MPT compression union
HPO-5070	3/4" replacement disc
HPO-5071	1" replacement disc
MEP-3001	24 VAC actuator Normally Closed for the VEP-34200186 and VEP-34210186
MEP-3010	24 VAC, Tri-state for VEP-34200196 and VEP-34210196
MEP-3011	24 VAC, 2-10 VDC VEP-34200195 and VEP-34210195

Details



VEP- 3420/3421 Dimensions			
A	B	C	D
3/4" MPT	3 19/32" (91)	2 3/4" (70)	5 1/8" (130)
1" MPT	3 27/32" (98)	3 1/8" (79)	5 7/8" (149)



VEP 3420/21 Fail-Safe Dimension			
A	B	C	D
3/4" MPT	3 13/16" (97)	2 3/4" (70)	5 1/8" (130)
1" MPT	4 1/16" (103)	3 1/8" (79)	5 7/8" (149)

Specifications

Sizes & Cv Rating

3/4"	4.9 Cv
1"	8.5 Cv

Maximum Differential

VEP-3420/21	3/4"	24 psi (165 kPa)
	1"	20 psi (137 kPa)
VEP-3420/21 FS	3/4"	16 psi (110 kPa)
	1"	13 psi (282 kPa)

Actuator Inputs

MEP-3001	On/Off, 24 VAC
MEP-3010	Tri-State, 24 VAC
MEP-3011	2-10 VDC

Power Requirements

MEP-3001	24 VAC @ 3 VA (10VA in-rush)
MEP-3010	24 VAC +25/-10% @ 0.7 VA
MEP-3011	24 VAC +25/-35% @ 1.5 VA

Stroke Timing

MEP-3001	180 seconds
MEP-3010	140 seconds
MEP-3011	50 seconds

Body Ratings

168 psi (1163 kPa) @ 212° F
232 psi (1599 kPa) @ 35.6° C

Connections

Compression unions; 3 req'd per valve. Order separately:	
3/4"	HPO-5026
1"	HPO-5027

Material

Body and Seat	Bronze
Packing	Double O-ring
Disc	EPDM
Stem	Stainless Steel

Weight

3/4"	2 lb.s (.91 kg)
1"	3.13 lbs. (1.42 kg)

Temperature Limits

Medium	35.6° to 212°F (2° to 100°C)
Ambient	32° to 120° F (0° to 49° C)
Shipping	0° to 140° F (-18° to 60° C)

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