

3-Way Diverting Iron w/VM Motors

2-1/2" – 8"

APPLICATION:

Control of Water; Water & Glycol Solutions to 50%.
Valves divert one flow into two directions (Diverting).
Seat Closure ANSI Class II*

CONSTRUCTION:

Body: ANSI B16.1 Iron 125lb. Flange or 250lb. Flange
Trim: Linear, Bronze or 300 Series Stainless Steel
Stem: 316 Stainless Steel
Bonnet: Brass
Packing: Guided Low-Friction TFE V-Ring, Self Adjusting
O-Ring: EPR

TRIM LIMITS (Flowing Differential Pressure):

Brz Trim: Liquids to 40 PSID
S/S Trim: Liquids to 100 PSID

CONFIGURATIONS:

Select Valve and Actuator Code in Tables:

Valve					VM1500E Actuator 24 VAC Supply			
Cv	Size (IN)	Flng.	Trim	Valve Code	Shut Off PSID	Fail Safe w/VMS-25	Fail Last Position	Approx Timing (SEC)
						Actuator Code	Actuator Code	
68	2.5	125	BRZ	VA3210CA	125	E016	E017	77
68	2.5	125	S/S	VA3210CC	125	E016	E017	77
68	2.5	250	BRZ	VA3210DA	125	E016	E017	77
68	2.5	250	S/S	VA3210DC	125	E016	E017	77
85	3	125	BRZ	VA3211CA	125	E016	E017	77
85	3	125	S/S	VA3211CC	125	E016	E017	77
85	3	250	BRZ	VA3211DA	125	E016	E017	77
85	3	250	S/S	VA3211DC	125	E016	E017	77

BODY PRESSURE-TEMPERATURE RATINGS:

Temp.	125 FLG (ratings are PSIG)	250 FLG (ratings are PSIG)
+32 to 150° F	175	400
300° F	140	310

NOTES:

- 1) Inlet Pressure cannot exceed Body Pressure-Temperature Rating.
- 2) Shut-off PSID is per stated ANSI Shut-off Classification.
- 3) Flowing PSID for water service should be no greater than 2/3 of Inlet Pressure unless verified for absence of cavitation with Warren Valve Sizing Program.
- 4) The difference between the upper port and the lower port pressure must not exceed 50PSID.

Valve					VM5000E Actuator 24 VAC Supply			
Cv	Size (IN)	Flng.	Trim	Valve Code	Shut Off PSID	Fail Safe w/VMS-25	Fail Last Position	Approx Timing (SEC)
						Actuator Code	Actuator Code	
160	4	125	BRZ	VA3213CA	125	E018	E019	57
160	4	125	S/S	VA3213CC	125	E018	E019	57
160	4	250	BRZ	VA3213DA	125	E018	E019	57
160	4	250	S/S	VA3213DC	125	E018	E019	57
195	5	125	BRZ	VA3214CA	125	E018	E019	95
195	5	125	S/S	VA3214CC	125	E018	E019	95
195	5	250	BRZ	VA3214DA	125	E018	E019	95
195	5	250	S/S	VA3214DC	125	E018	E019	95
270	6	125	BRZ	VA3215CA	125	E018	E019	105
270	6	125	S/S	VA3215CC	125	E018	E019	105
270	6	250	BRZ	VA3215DA	125	E018	E019	105
270	6	250	S/S	VA3215DC	125	E018	E019	105
425	8	125	BRZ	VA3217CA	125	E018	E019	114

Actuator Specifications:

Control Signal: 4-20 mAdc (Factory Setting), 0-20 mAdc, 0-10 Vdc, or 2-10 Vdc, and Floating. Self-Adjusting, Field-Selectable
Control Action: Increasing Signal Closes Lower Port / Opens Upper Port (Factory Setting) - Reversible
Power Consumption: VM1500E : 12VA / VM5000E : 25VA
Timing: See Configuration Tables
Feedback Signal: 0-10 Vdc or 2-10 Vdc
Manual Override: Yes
Construction: Polycarbonate Motor Housing with Steel Linkage and Yoke
Locations: NEMA Type 2 / IP54 Indoor Only
Temperature Limits: Ambient... +32F to 122F
Mounting: Vertical Above Centerline of Valve

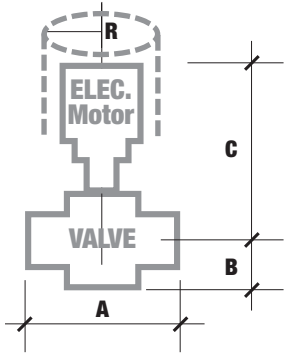
VMS-25 Power Pack Specifications:

Required for Fail Safe Operation (one VMS-25 can operate two VM1500E or one VM5000E at a time)
Fail Direction: Field Selectable to Close Upper Port or Close Lower Port on Loss of Power
Power Consumption: 24VAC, 40VA
Construction: Battery w/Circuit Board & Transformer, Components Only
Mounting: Panel Mount
Approximate LxWxH: 7-1/2" x 5" x 3"

2-1/2" – 8"

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Electric Motor-Actuated Valves



ROUGHING DIMENSIONS (Inches):

Component		Dimension by Valve Size (Inches)					
variable		2-1/2	3	4	5	6	8
A	125 FLG	9	10	13	12	14-1/8	16-1/4
A	250 FLG	9-5/8	10-3/4	13-5/8	12-7/8	14-1/2	16-1/4
B	125 FLG	7-1/8	8	9-7/8	10-1/2	11-1/8	11-7/8
B	250 FLG	7-3/8	8-3/8	10-1/4	11	11-1/2	12-3/8
C	VM1500E Actuator	20	20-7/8	N/A	N/A	N/A	N/A
C	VM5000E Actuator	N/A	N/A	22	22-5/8	23-1/4	24-3/8
R*	VM1500E Actuator	3-1/4	3-1/4	N/A	N/A	N/A	N/A
R*	VM5000E Actuator	N/A	N/A	5	5	5	5

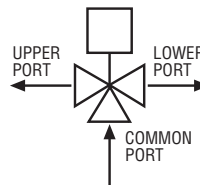
Allow 6 inch clearance above actuator for removal / service.

*Centerline of Valve to Outside Actuator

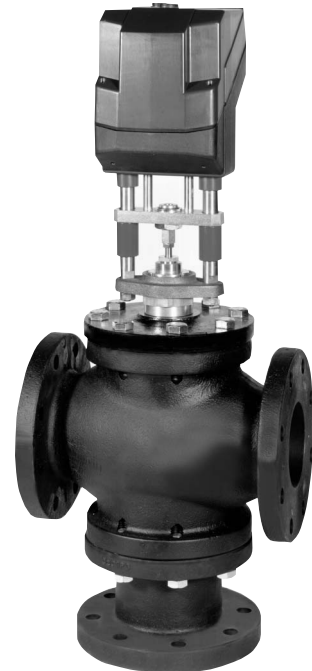
WEIGHTS:

Item	Weight	
Valve Size (in.)	125FLG (LBS.)	250FLG (LBS.)
2-1/2	59	73
3	78	94
4	138	164
5	152	213
6	203	284
8	314	405
Actuator	LBS.	
VM1500E	8-1/2	
VM5000E	22-1/2	
Power Pack	LBS.	
VMS-25	3	

Actual shipping weights may vary.



VA3210CA-E017



VA3213CA-E019

