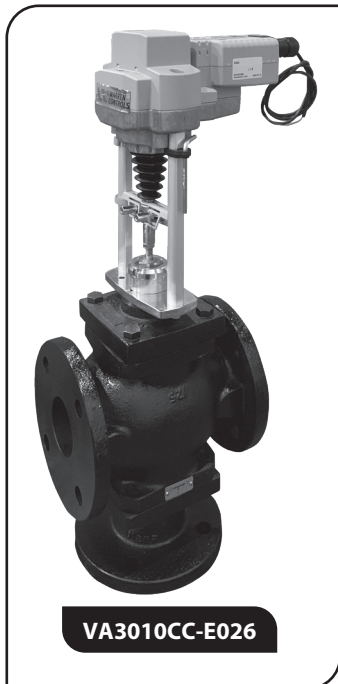
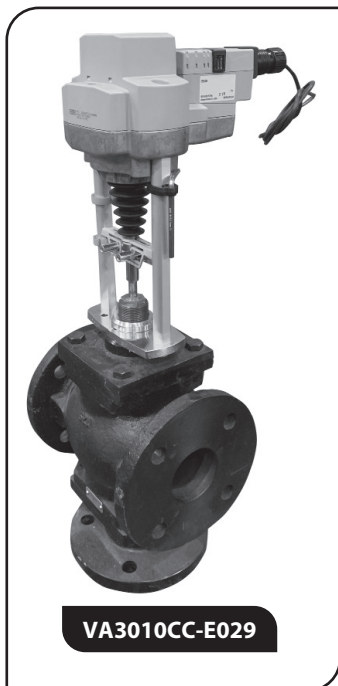


ELECTRICALLY ACTUATED

3-WAY MIXING IRON - 2 1/2" - 6"



VA3010CC-E026



VA3010CC-E029

NOTES:

- 1) Inlet Pressure cannot exceed Body Pressure-Temperature Rating.
- 2) Shut-off pressures listed are with respect to stated ANSI Leakage Classes.
- 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.

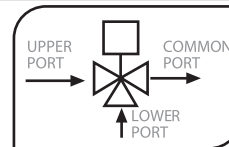


► APPLICATION:

Control of Water; Water & Glycol Solutions to 60%. Valves mix two flows together (Converging).
Seat Leakage ANSI Class III & IV.

► VALVE 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: EPDM Lip Packing (+20 to 350°F) Standard
(EPDM is **not** suitable for use with oils, hydrocarbons, or acids.)
PTFE V-Ring, (+60 to 350°F) Optional, must be specified on order
Agency Approval: CRN # CSA - OC20496 (Excludes 250# Type 22/32)



► TRIM LIMITS (Flowing Differential Pressure):

S/S Trim: Liquid to 100 PSID

► ACTUATOR SPECIFICATIONS:

Control Signal: 2-10 Vdc
(4-20 mA dc with 500 ohm resistor Kit KR500-supplied with motor)
Control Action, Loss of Signal: Increasing Signal Opens Lower Port/ Closes Upper Port,
Loss of Signal Closes Lower Port/ Opens Upper Port (Default Setting)
Reversible with Switch. Can be specified when ordering.
Feedback Signal: 2-10 Vdc
Power Supply: 24 VAC/DC
Loss of Power: **E024 & E029** (FAIL LAST POSITION)
E031 (E029 w/ VMS-50 BCM, FAIL SAFE TO LOSS OF SIGNAL POSITION)
E025 & E026 (ELECTRONIC FAIL SAFE)
Fail Lower Port Closed/ Upper Port Open (Default Setting)
Reversible with Switch. Can be specified when ordering.
Power Consumption
Running: **E024** 2W; **E025** 3W; **E026** 5W; **E029** 6W;
E031 Battery Charging 12.84W; Battery charged 7.2W
Holding: **E024** 1.5W; **E025** 2W; **E026** 2W; **E029** 1.5W;
E031 Battery Charging 8.34W; Battery charged 2.7W
Transformer sizing: **E024** 4VA; **E025** 7VA; **E026** 9.5VA; **E029** 11VA;
E031 N/A
Switching Power Supply **E031** 24Vdc 2.0A
Timing: See Configuration Tables
Manual Override: Hex crank (supplied with actuator)
Construction: Aluminum Die Cast and Plastic Housing
Locations: NEMA Type 2 / IP54, UL enclosure type 2
Temperature Limits: +32°F to 122°F Ambient
Mounting: Vertical above centerline of valve
Safety Agency Listing: CE, cULus

► VMS-50 BCM (BACK-UP CONTROL MODULE) SPECIFICATIONS:

Required for Fail Safe Operation with fail last position (Actuators E024 & E029)
(One VMS-50BCM can operate one, two or three actuators at a time)
The E031 includes a VMS-50 BCM. The VMS-50 BCM does not include a VMS-50 PS.

Fail Direction: Fail Safe to Loss of Signal Position
Power Requirement: 24 Vdc 2.0 A from Separate External Switching Power Supply
Power Output: 24 Vdc 48W Total
Construction: Battery w/Circuit Board & Transformer in the Nema 4x Enclosure
Mounting: Wall Mount
Dimensions: 8.75" (W) x 6.97" (H) x 5.19" (D) (See page 34)
Safety Agency Listing: Not Listed

► VMS-50 PS (SWITCHING POWER SUPPLY) SPECIFICATIONS:

Required to supply 24Vdc power to the VMS-50 BCM Back-up Control Module
The VMS-50 BCM does not include a VMS-50 PS.

Input: 115 VAC 50/60 Hz 1.5A
Power Output: 24 Vdc 2.0 A
Input Connector: Three Pin Input Plug
Construction: Molded Plastic
Dimensions: 4.31" (L) x 2.16" (W) x 1.62" (H)
Safety Agency Listing: UL Listed

Note: If the building already has a 24 Vdc circuit rated at or above 2.0 Amps that is available for use with the VMS-50 BCM, then the VMS-50 PS is not required.

▶ ACTUATOR & VALVE CONFIGURATIONS: Select Valve & Actuator Code in Tables:

Fail Last Position					ACTUATOR CODE E024		
Cv	Size (IN)	FLNG	Trim	Valve Code	SHUT-OFF (PSID)		Max Timing (SEC)
					CL III	CL IV	Motor
69	2.5	125	BRZ	VA3010CA	40	24	90
69	2.5	125	S/S	VA3010CC	40	24	90
69	2.5	250	BRZ	VA3010DA	40	24	90
69	2.5	250	S/S	VA3010DC	40	24	90
86	3	125	BRZ	VA3011CA	25	12	90
86	3	125	S/S	VA3011CC	25	12	90
86	3	250	BRZ	VA3011DA	25	12	90
86	3	250	S/S	VA3011DC	25	12	90

Fail Safe					ACTUATOR CODE E025			
Cv	Size (IN)	FLNG	Trim	Valve Code	SHUT-OFF (PSID)		Max Timing (SEC)	
					CL III	CL IV	Motor	Fail Safe
69	2.5	125	BRZ	VA3010CA	40	24	90	35
69	2.5	125	S/S	VA3010CC	40	24	90	35
69	2.5	250	BRZ	VA3010DA	40	24	90	35
69	2.5	250	S/S	VA3010DC	40	24	90	35
86	3	125	BRZ	VA3011CA	25	12	90	35
86	3	125	S/S	VA3011CC	25	12	90	35
86	3	250	BRZ	VA3011DA	25	12	90	35
86	3	250	S/S	VA3011DC	25	12	90	35

Fail Safe					ACTUATOR CODE E026			
Cv	Size (IN)	FLNG	Trim	Valve Code	SHUT-OFF (PSID)		Max Timing (SEC)	
					CL III	CL IV	Motor	Fail Safe
69	2.5	125	BRZ	VA3010CA	62	46	90	35
69	2.5	125	S/S	VA3010CC	62	46	90	35
69	2.5	250	BRZ	VA3010DA	62	46	90	35
69	2.5	250	S/S	VA3010DC	62	46	90	35
86	3	125	BRZ	VA3011CA	41	28	90	35
86	3	125	S/S	VA3011CC	41	28	90	35
86	3	250	BRZ	VA3011DA	41	28	90	35
86	3	250	S/S	VA3011DC	41	28	90	35

Fail Last Position/ Fail Safe							ACTUATOR CODE E029/E031		
Cv	Size (IN)	FLNG	Trim	Valve Code	Fail Last Position (Actuator Code)	Fail Safe w/VMS50 (Actuator Code)	SHUT-OFF (PSID)		Max Timing (SEC)
							CL III	CL IV	Motor
156	4	125	BRZ	VA3013CA	E029	E031	65	55	90
156	4	125	S/S	VA3013CC	E029	E031	65	55	90
156	4	250	BRZ	VA3013DA	E029	E031	65	55	90
156	4	250	S/S	VA3013DC	E029	E031	65	55	90
270	5	125	BRZ	VA3014CA	E029	E031	40	32	90
270	5	125	S/S	VA3014CC	E029	E031	40	32	90
270	5	250	BRZ	VA3014DA	E029	E031	40	32	90
270	5	250	S/S	VA3014DC	E029	E031	40	32	90
347	6	125	BRZ	VA3015CA	E029	E031	27	20	90
347	6	125	S/S	VA3015CC	E029	E031	27	20	90
347	6	250	BRZ	VA3015DA	E029	E031	27	20	90
347	6	250	S/S	VA3015DC	E029	E031	27	20	90

ELECTRICALLY ACTUATED

3-WAY MIXING IRON - 2 1/2" - 6"

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

TEMP.	125 FLG (PSIG)	250 FLG (PSIG)
+20 to 150° F	175	400
350° F	125	280

Ratings are PSIG
Pressure boundary meets ANSI B16.1

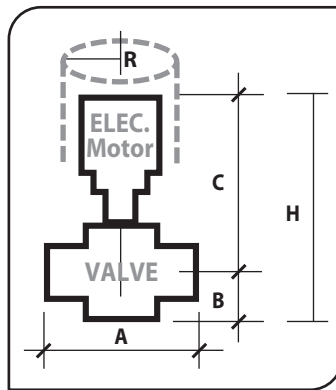
WEIGHTS

ITEM	WEIGHT (LBS)	
	125 FLG	250 FLG
VALVE SIZE (IN)		
2-1/2	64	73
3	83	94
4	139	157
5	157	211
6	202	283
ACTUATOR	LBS	
E024	4	
E025	4-1/2	
E026	8-1/2	
E029/E031	8-1/2	
BCM	LBS	
VMS-50	4-1/2	

Actual shipping weights may vary.

► Dimensions (IN):

Component	Variable	Dimension by Valve Size (IN)				
		2-1/2	3	4	5	6
A	125 FLG	9	10	13	15-3/4	17-3/4
A	250 FLG	9-5/8	10-3/4	13-5/8	16-5/8	18-5/8
B	125 FLG	7-1/16	7-15/16	9-7/8	9-1/4	9-7/8
B	250 FLG	7-3/8	8-5/16	10-3/16	10-3/8	11
C	E024	13-1/2	14-3/8	-	-	-
C	E025	14-1/4	15-1/8	-	-	-
C	E026/E029/E031	17-3/4	18-5/8	19-5/8	18-1/2	19-1/4
H	E024 125 FLG	20-3/4	22-1/2	-	-	-
H	E024 250 FLG	21	22-7/8	-	-	-
H	E025 125 FLG	21-1/2	23-1/4	-	-	-
H	E025 250 FLG	21-3/4	23-5/8	-	-	-
H	E026/E029/E031 125 FLG	25	26-3/4	29-5/8	27-7/8	29-1/4
H	E026/E029/E031 250 FLG	25-1/4	27-1/8	30-5/8	29	30-3/8
R*	E024/E029/E031	7-1/2	7-1/2	7-1/2	7-1/2	7-1/2
R*	E025/E026	8-3/4	8-3/4	8-3/4	8-3/4	8-3/4



Allow 6 inch clearance
above actuator for
removal / service.

*Center line of Valve to
Outside Actuator