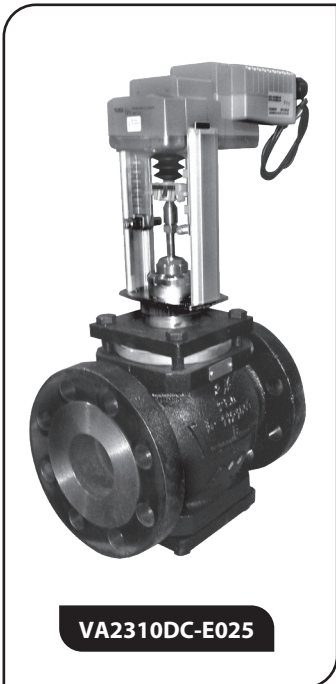


ELECTRICALLY ACTUATED

SINGLE SEATED CYLINDER BALANCED IRON - 2 1/2" - 6"



VA2310DC-E025



VA2315CA-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 Saturated Steam; Water; Water & Glycol Solutions to 60%. Seat Leakage Class ANSI III & IV.

► VALVE CONSTRUCTION:

Body: ANSI B16.1 Iron 125lb. Flange or 250lb. Flange
Trim: EQ%, Bronze or 300 Series Stainless Steel
Cylinder Seal: EPDM (BRZ Trim) O-Ring
Aflas VP101-80 (300 SS Trim) O-Ring
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 Approvals: CRN # CSA - OC20496 (Excludes 250# Type 22/32)

► TRIM LIMITS (Flowing Differential Pressure):

Brz Trim: Liquid or Steam to 40 PSID
S/S Trim: Liquid or Steam 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 Valve, Loss of Signal Closes Valve
(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 Closed (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:
(24VAC Class 2) **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.

SINGLE SEATED CYLINDER BALANCED IRON - 2 1/2" - 6"

▶ 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	
65	2.5	125	BRZ	VA2310CA	175	175	90	
65	2.5	125	S/S	VA2310CC	175	175	90	
65	2.5	250	BRZ	VA2310DA	358	226	90	
65	2.5	250	S/S	VA2310DC	358	226	90	
90	3	125	BRZ	VA2311CA	175	140	90	
90	3	125	S/S	VA2311CC	175	140	90	
90	3	250	BRZ	VA2311DA	275	140	90	
90	3	250	S/S	VA2311DC	275	140	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	
65	2.5	125	BRZ	VA2310CA	175	175	90	35	
65	2.5	125	S/S	VA2310CC	175	175	90	35	
65	2.5	250	BRZ	VA2310DA	358	226	90	35	
65	2.5	250	S/S	VA2310DC	358	226	90	35	
90	3	125	BRZ	VA2311CA	175	140	90	35	
90	3	125	S/S	VA2311CC	175	140	90	35	
90	3	250	BRZ	VA2311DA	275	140	90	35	
90	3	250	S/S	VA2311DC	275	140	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		
65	2.5	125	BRZ	VA2310CA	175	175	90	35		
65	2.5	125	S/S	VA2310CC	175	175	90	35		
65	2.5	250	BRZ	VA2310DA	400	400	90	35		
65	2.5	250	S/S	VA2310DC	400	400	90	35		
90	3	125	BRZ	VA2311CA	175	175	90	35		
90	3	125	S/S	VA2311CC	175	175	90	35		
90	3	250	BRZ	VA2311DA	400	300	90	35		
90	3	250	S/S	VA2311DC	400	300	90	35		
170	4	125	BRZ	VA2313CA	175	141	90	35		
170	4	125	S/S	VA2313CC	175	141	90	35		
170	4	250	BRZ	VA2313DA	281	141	90	35		
170	4	250	S/S	VA2313DC	281	141	90	35		
280	5	125	BRZ	VA2314CA	175	46	90	35		
280	5	125	S/S	VA2314CC	175	46	90	35		
280	5	250	BRZ	VA2314DA	187	46	90	35		
280	5	250	S/S	VA2314DC	187	46	90	35		

ELECTRICALLY ACTUATED

SINGLE SEATED CYLINDER BALANCED IRON - 2 1/2" - 6"

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

TEMP.	150 THD (PSIG)	250 THD (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
2-1/2	55	66
3	75	80
4	127	139
5	149	181
6	197	256
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.

CYLINDER SEAL TEMPERATURE LIMITS

+20 to 300° F (BRZ Trim)
+20 to 350° F (300 S/S Trim)

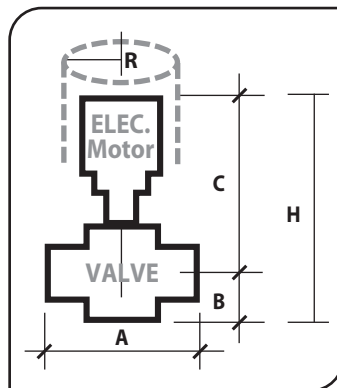
► ACTUATOR & VALVE CONFIGURATIONS: Select Valve & Actuator Code in Tables:

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	
170	4	125	BRZ	VA2313CA	E029	E031	175	175	90
170	4	125	S/S	VA2313CC	E029	E031	175	175	90
170	4	250	BRZ	VA2313DA	E029	E031	400	400	90
170	4	250	S/S	VA2313DC	E029	E031	400	400	90
280	5	125	BRZ	VA2314CA	E029	E031	175	175	90
280	5	125	S/S	VA2314CC	E029	E031	175	175	90
280	5	250	BRZ	VA2314DA	E029	E031	400	400	90
280	5	250	S/S	VA2314DC	E029	E031	400	400	90
360	6	125	BRZ	VA2315CA	E029	E031	175	175	90
360	6	125	S/S	VA2315CC	E029	E031	175	175	90
360	6	250	BRZ	VA2315DA	E029	E031	400	400	90
360	6	250	S/S	VA2315DC	E029	E031	400	400	90

► 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		4-3/4	5-3/8	6-3/8	5-3/4	6-1/2
C	E024	14	14-7/8	-	-	-
C	E025	14-3/4	15-5/8	-	-	-
C	E026/E029/E031	18-1/4	19-1/8	20-1/4	20-3/4	21-3/8
H	E024	18-3/4	20-1/4	-	-	-
H	E025	19-1/2	21	-	-	-
H	E026/E029/E031	23	24-1/2	26-5/8	26	27-7/8
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	-



Allow 6 inch clearance
above actuator for
removal / service.

*Center line of Valve to
Outside Actuator