

## DOUBLE SEATED BALANCED IRON - 1 1/2" - 2"

## ► APPLICATION:

Control of Saturated Steam; Water; Water & Glycol Solutions. Seat Leakage Class ANSI III.

## ► VALVE CONSTRUCTION:

Body:	ANSI B16.15 Iron 250lb.Threaded (NPT)
Trim:	EQ%, 300 Series Stainless Steel
Stem:	316 Stainless Steel
Bonnet:	Brass
Packing:	EPDM Lip Packing (+20 to 350°F) Standard (EPDM is <b>not</b> suitable for use with oils, hydrocarbons, or acids.) PTFE V-Ring, (+60 to 350°F) Optional, must be specified on order
Agency Approvals:	None

## ► TRIM LIMITS (Flowing Differential Pressure):

S/S Trim: Liquid or Steam 100 PSID

## ► ACTUATOR SPECIFICATIONS:

Control Signal: 2-10 Vdc  
(4-20 mA<sub>dc</sub> 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** (FAIL LAST POSITION)  
**E025** (ELECTRONIC FAIL SAFE) Fail Closed (Default Setting)  
Reversible with Switch. Can be specified when ordering.

## Power Consumption

Running: **E024** 2W; **E025** 3W;  
Holding: **E024** 1.5W; **E025** 2W;  
Transformer sizing: **E024** 4VA; **E025** 7VA;  
(24VAC Class 2)  
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

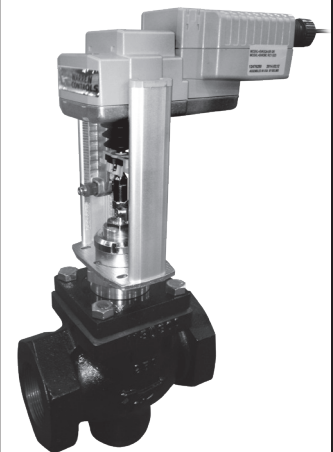
The VMS-50 BCM does not include a VMS-50 PS.

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.



VA2208BC-E024



VA2209BC-E025

## 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.

# ELECTRICALLY ACTUATED

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### ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

TEMP.	250 THD (RATINGS ARE PSIG)
+20 to 150° F	400
350° F	280

Ratings are PSIG  
Pressure boundary meets ANSI B16.15

### WEIGHTS

ITEM	WEIGHT
<b>VALVE SIZE (IN)</b>	<b>LBS</b>
1-1/2	19
2	18-1/2
<b>ACTUATOR</b>	<b>LBS</b>
E024	4
E025	4-1/2
<b>BCM</b>	<b>LBS</b>
VMS-50	4-1/2

Actual shipping weights may vary.

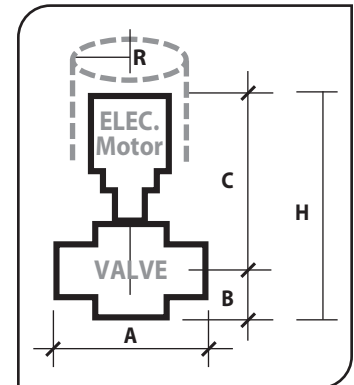
### ▶ ACTUATOR & VALVE CONFIGURATIONS: Select Valve & Actuator Code in Tables:

Fail Last Position					ACTUATOR CODE <b>E024</b>	
Cv	Size (IN)	Thd NPT	Trim	Valve Code	SHUT-OFF (PSID)	Max Timing (SEC)
					CL III	Motor
30	1.5	250	S/S	VA2208BC	400	90
42	2	250	S/S	VA2209BC	400	90

Fail Safe					ACTUATOR CODE <b>E025</b>		
Cv	Size (IN)	Thd NPT	Trim	Valve Code	SHUT-OFF (PSID)	Max Timing (SEC)	
					CL III	Motor	Fail Safe
30	1.5	250	S/S	VA2208BC	400	90	35
42	2	250	S/S	VA2209BC	400	90	35

### ▶ Dimensions (IN):

Component	Variable	Dimension by Valve Size (IN)	
		1-1/2	2
A	250THD	7-3/8	7-3/8
B		3-7/8	3-7/8
C	E024	12-3/4	12-3/4
C	E025	13-1/2	13-1/2
H	E024	16-5/8	16-5/8
H	E025	17-3/8	17-3/8
R*	E024	7-1/2	7-1/2
R*	E025	8-3/4	8-3/4



Allow 6 inch clearance above actuator for removal / service.

\*Center line of Valve to Outside Actuator