

Single-Seated Cylinder Balanced Iron Normally Closed 2-1/2" – 6"

Diaphragm-Actuated Valves

APPLICATION:

Control of Saturated Steam; Water; Water and Glycol Solutions to 50%. Seat Closure ANSI Class III*

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
 Fluoraz 797 (300 SS Trim) O-Ring
 Stem: 316 Stainless Steel
 Bonnet: Brass
 Packing: Guided Low-Friction TFE V-Ring, Self Adjusting

TRIM LIMITS (Flowing Differential Pressure):

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

BODY PRESSURE-TEMPERATURE RATINGS:

Temp.	125 FLG (ratings are PSIG)	250 FLG (ratings are PSIG)
+32 to 150° F	175	400
350° F	125	280
400° F	–	250

CYLINDER SEAL TEMPERATURE LIMITS:

+32 to 300° F (BRZ Trim)
 +32 to 350° F (125 FLG w/300 SS Trim)
 +32 to 400° F (250 FLG w/300 SS Trim)

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.



VA7310CA-D003

CONFIGURATIONS:

Select Valve and Actuator Code in Tables:

Valve					50 Actuator 20 PSIG Supply			
Cv	Size	Flng.	Trim	Valve Code	8-13 PSIG Range		w. 42 Positioner	
					Shut Off PSID	Actuator Code	Shut Off PSID	Actuator Code
65	2.5	125	BRZ	VA7310CA	175	D001	175	D003
65	2.5	125	S/S	VA7310CC	175	D001	175	D003
65	2.5	250	BRZ	VA7310DA	400	D001	400	D003
65	2.5	250	S/S	VA7310DC	400	D001	400	D003
90	3	125	BRZ	VA7311CA	175	D001	175	D003
90	3	125	S/S	VA7311CC	175	D001	175	D003
90	3	250	BRZ	VA7311DA	400	D001	400	D003
90	3	250	S/S	VA7311DC	400	D001	400	D003

50 Actuator Specifications:

Effective Area: 50 Square Inches
 Construction: Aluminum Yoke and Diaphragm Chamber with Neoprene Diaphragm.
 Mounting: Vertical Above Valve

Valve					84 Actuator 20 PSIG Air Supply							
Cv	Size	Flng.	Trim	Valve Code	9-15 PSIG Range		3-15 PSIG Range		w.42 Positioner		w.760P Positioner	
					Shut Off PSID	Actuator Code	Shut Off PSID	Actuator Code	Shut Off PSID	Actuator Code	Shut Off PSID	Actuator Code
65	2.5	125	BRZ	VA7310CA	175	D008	175	D004	175	D012	175	D016
65	2.5	125	S/S	VA7310CC	175	D008	175	D004	175	D012	175	D016
65	2.5	250	BRZ	VA7310DA	400	D008	342	D004	400	D012	400	D016
65	2.5	250	S/S	VA7310DC	400	D008	342	D004	400	D012	400	D016
90	3	125	BRZ	VA7311CA	175	D008	175	D004	175	D012	175	D016
90	3	125	S/S	VA7311CC	175	D008	175	D004	175	D012	175	D016
90	3	250	BRZ	VA7311DA	400	D008	224	D004	400	D012	400	D016
90	3	250	S/S	VA7311DC	400	D008	224	D004	400	D012	400	D016
170	4	125	BRZ	VA7313CA	175	D039	83	D037	175	D041	175	D043
170	4	125	S/S	VA7313CC	175	D039	83	D037	175	D041	175	D043
170	4	250	BRZ	VA7313DA	400	D039	83	D037	400	D041	400	D043
170	4	250	S/S	VA7313DC	400	D039	83	D037	400	D041	400	D043
280	5	125	BRZ	VA7314CA	175	D039	12	D037	175	D041	175	D043
280	5	125	S/S	VA7314CC	175	D039	12	D037	175	D041	175	D043
280	5	250	BRZ	VA7314DA	400	D039	12	D037	400	D041	400	D043
280	5	250	S/S	VA7314DC	400	D039	12	D037	400	D041	400	D043
360	6	125	BRZ	VA7315CA	175	D039	0	-	175	D041	175	D043
360	6	125	S/S	VA7315CC	175	D039	0	-	175	D041	175	D043
360	6	250	BRZ	VA7315DA	400	D039	0	-	400	D041	400	D043
360	6	250	S/S	VA7315DC	400	D039	0	-	400	D041	400	D043

84 Actuator Specifications:

Effective Area: 84 Square Inches
 Construction: Acrylic Enamel Coated Iron Yoke and Steel Diaphragm Chamber with Buna-N Diaphragm.
 Mounting: Vertical Above Valve

Control Action:

Increasing Signal Opens Valve
 Operating Range may differ from Signal Range,
 Use a Positioner to Match Ranges

42 Positioner Specifications:

Control Signal: 3-15 PSIG (Factory Setting)
 Adjustable/Non-Reversible
 Air Supply/Consumption: 20 PSIG/Approx 0.012 SCFM

760P Positioner Specifications:

Control Signal: 3-15 PSIG (Factory Setting)
 Adjustable/Reversible
 Air Supply/Consumption: 20 PSIG/Approx 0.020 SCFM

For more Details:

Diaphragm-Actuator Product Sheet - pg. 89 (BAC Catalog)
 Positioner Product Sheet - pg. 91 (BAC Catalog)

2-1/2" – 6" Single-Seated Cylinder Balanced Iron Normally Closed

ROUGHING DIMENSIONS (IN):

Component		Dimension by Valve Size (IN)				
		2-1/2	3	4	5	6
	variable					
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	7-1/2	8-1/8
C	50 Actuator	17-7/8	18-3/4	N/A	N/A	N/A
C	84 Actuator	21-1/4	22-1/8	23-1/8	22	22-3/4
D	50 Actuator	10-1/2	10-1/2	N/A	N/A	N/A
D	84 Actuator	13-7/8	13-7/8	13-7/8	13-7/8	13-7/8
R*	50 w/42	7-1/2	7-1/2	N/A	N/A	N/A
R*	84 w/42	9	9	9	9	9
R*	84 w/760P	8-1/8	8-1/8	8-1/8	8-1/8	8-1/8

Allow 4-7/8 inch clearance above actuator for removal / service (50 & 84).

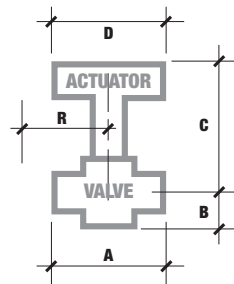
Allow 6-1/8 inch clearance above actuator for removal / service (115).

*Centerline of Actuator to Outside point of Positioner

WEIGHTS:

Item	Weight (LBS)	
Valve (IN)	125FLG	250FLG
2-1/2	57	66
3	75	80
4	127	139
5	149	181
6	197	256
Actuator	LBS	
50	13	
84	48-1/2	
Positioner	LBS	
42	1	
760P	8	

Actual shipping weights may vary.



VA7314CC-D043