PNEUMATIC

HVAC/BAC

Control Valve Products for

HVAC / BAC

(Heating, Ventilation, and Air Conditioning / Building Automation Control)

HVAC_BAC_PNEU_RevDa_0324

WARREN CONTROLS

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DEPENDABLE, RUGGED, PRECISION CONTROL VALVES AND ACCESSORIES

HOW TO ORDER YOUR CONTROL VALVE

▶ IDENTIFYING A CONTROL VALVE CONFIGURATION

A **CONFIGURATION** is a control valve formed by the combination of a valve and actuator. Configurations are tabulated by valve capacity (Cv), pipe size, end connection, trim material, actuator size, control characteristic, and shut-off capability (differential pressure).

To order a control valve configuration, locate the line that best meets your application, and specify the appropriate valve code and actuator code. See the example on this page.

Valve					50 Actuator 20 PSIG Air Supply 50			
					3-8 PSIG RANGE		ALL OTHER RANGES	
Cv	Size (IN)	Thd NPT	Trim	Valve Code	Actuator Code	SHUT OFF PSID Class IV	w/42 Positioner Actuator Code	SHUT OFF PSID Class IV
4.9	0.5	250	S/S	**VA2004AC**	D000	100	**D002**	100
7.2	0.75	250	S/S	VA2005AC	D000	100	D002	100
10	1	250	S/S	VA2006AC	D000	100	D002	100
22.2	1.25	250	S/S	VA2007AC	D000	100	D002	100
24	1.5	250	S/S	VA2008AC	D000	100	D002	100
40	2	250	S/S	VA2009AC	D000	100	D002	100

VA2004AC-D002

Identifies a single seated bronze valve body assembly, 50 Actuator and a Model 42 Positioner .

Note: You may also specify on an order available control signals and/or control actions other than the factory settings.

▶ DETERMINING BODY MATERIAL CONFIGURATION

Matching the valve's body material and end connection to existing piping or specifications is the best choice. Otherwise, to determine what body material and end connection you need, you must first know the pressure and temperature of the medium entering your valve. For most flowing media you will need an approximate idea of the temperature. For saturated steam you can use the steam table below to determine the temperature. Once you know the pressure and temperature, you can use the body pressure-temperature rating table, (below, to determine what body material and end connection you need.

EXAMPLE 1: You need a 2-1/2 inch single-seated valve. You have saturated steam entering your valve at 50 PSIG. From the steam table you see the steam has a temperature of 297.7°F. From the valve configuration sheets you know that a 2-1/2 inch single-seated valve is available with an iron body with a 125 flange or an iron body with a 250 flange. Scanning the pressure-temperature rating table, you see that the pressure rating for an iron body with a 125 flange at 297.7°F is not listed but a pressure rating is listed at 300°F. At 300°F the pressure rating is 140 PSIG. Since 300°F exceeds the actual temperature of 297.7°F and the 125 PSIG rating at 300°F exceeds the actual pressure of 50 PSIG, an iron body with a 125 flange is ok.

EXAMPLE 2: You need a 6 inch double-seated valve. You have 200 PSIG water entering your valve at 175°F. From the valve configuration sheets you know that a 6 inch double seated valve is available with an iron body with a 125 flange or an iron body with a 250 flange. Scanning the pressure-temperature rating table, you see that the pressure rating for an iron body with a 125 flange at 175°F is 170 PSIG. Since this pressure rating is less than the actual pressure of 200 PSIG, an iron body with a 125 flange is not ok. Scanning the pressure-temperature rating table again, you see that the pressure rating for an iron body with a 250 flange at 175°F is 385 PSIG. Since this 385 PSIG rating is greater than the actual pressure of 200 PSIG, an iron body with a 250 flange is ok.

Saturated Steam Temperature

Pressure (PSIG)	Temp (°F)
0	212.0
2	218.5
4	224.4
6	229.8
8	234.6
10	239.0
15	249.7
20	258.8
25	266.8
30	274.0
35	280.6
40	286.7
45	292.4
50	297.7
55	302.6
60	307.3
65	311.8
70	316.0
75	320.0
80	323.9
85	327.6
90	331.1
95	334.6
100	337.9
105	341.1
110	344.1
115	347.1
120	350.0

Body Pressure-Temperature Ratings (PSIG)

Temp (°F)	Brz Body Thd	Iron Body 125 Flg	Iron Body Thd/250 Flg
+20 to 100°F	400	175	400
150°F	400	175	400
175°F	392	170	385
200°F	385	165	370
225°F	375	155	355
250°F	365	150	340
275°F	350	145	325
300°F	335	140	310
350°F	300	125	280

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Control Valve Products for HVAC/BAC

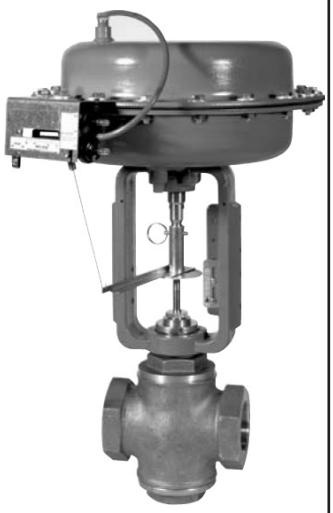
Specifying and buying a control valve begins with an understanding of the control and piping systems to which it will be connected. The Warren Controls staff has attempted to make the ordering process "user friendly" by placing products into well-defined categories and tabulating information like pipe size, body and trim materials, and flow capacity factors (Cv), followed by an assortment of actuators … a lot of information, in a logical format, intended to make your work as easy as possible.

(800) 922-0085 or (610) 317-0800
Mon-Fri: 8:30 AM - 5:00 PM EST

info@warrencontrols.com

SINGLE SEATED BRONZE (NORMALLY OPEN) 1/2"-2"

VA2008AC-D002



VA2009AC-D010

▸ APPLICATION:

Control of Saturated Steam; Water; Water and Glycol Solutions to 60%. Seat Leakage ANSI Class IV

▸ VALVE CONSTRUCTION:

Body:	ANSI B16.15 Bronze 250lb. Threaded (NPT)
Trim:	EQ%, 300 Series Stainless Steel
Stem:	316 Stainless Steel
Bonnet:	Brass / Bronze
Packing:	EPDM Lip Packing (+20 to 350ºF) Standard (EPDM is **not** suitable for use with oils, hydrocarbons, or acids.) PPTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
Agency Approval:	CRN # CSA - OC18997 (Bronze Body Only)

▸ TRIM LIMITS (Flowing Differential Pressure):

S/S Trim:	Liquids or Steam to 100 PSID

▸ CONTROL ACTION:

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

▸ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

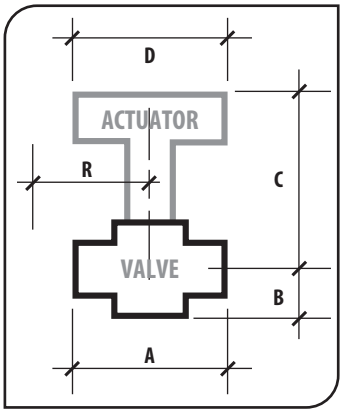
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▸ Dimensions (IN):

Component		Dimension by Valve Size (IN)		
Variable		1/2 & 3/4, 1	1-1/4 & 1-1/2	2
A	250THD	4-7/8	5-3/4	6-1/2
B	250THD	2-3/4	3-1/4	3-5/8
C	50 Actuator	15-1/2	16-1/8	16-3/8
C	84 Actuator	18-7/8	19-1/2	19-3/4
D	50 Actuator	10-1/2	10-1/2	10-1/2
D	84 Actuator	13-7/8	13-7/8	13-7/8
R*	50 w/42	7-1/2	7-1/2	7-1/2
R*	84 w/42	9	9	9
R*	84 w/760P	8-1/8	8-1/8	8-1/8



Allow 4-1/8 inch clearance above actuator for removal / service.

*Center line of Actuator to Outside Point of Positioner

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.

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

Valve					50 Actuator 20 PSIG Air Supply 50			
					3-8 PSIG SPRING RANGE		ALL OTHER RANGES	
Cv	Size (IN)	Thd NPT	Trim	Valve Code	Actuator Code	SHUT OFF PSID Class IV	w/42 Positioner Actuator Code	SHUT OFF PSID Class IV
4.9	0.5	250	S/S	VA2004AC	D000	100	D002	100
7.2	0.75	250	S/S	VA2005AC	D000	100	D002	100
10	1	250	S/S	VA2006AC	D000	100	D002	100
22.2	1.25	250	S/S	VA2007AC	D000	100	D002	100
24	1.5	250	S/S	VA2008AC	D000	100	D002	100
40	2	250	S/S	VA2009AC	D000	100	D002	100

Shut-off values are based on 20 PSIG air pressure to the actuator when the valve is closed.

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 84					
					3-15 PSIG SPRING RANGE		ALL OTHER RANGES			
Cv	Size (IN)	Thd NPT	Trim	Valve Code	Actuator Code	SHUT OFF PSID Class IV	3-9 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class IV
4.9	0.5	250	S/S	VA2004AC	D004	400	D006	D010	D014	400
7.2	0.75	250	S/S	VA2005AC	D004	400	D006	D010	D014	400
10	1	250	S/S	VA2006AC	D004	301	D006	D010	D014	400
22.2	1.25	250	S/S	VA2007AC	D004	120	D006	D010	D014	348
24	1.5	250	S/S	VA2008AC	D004	120	D006	D010	D014	348
40	2	250	S/S	VA2009AC	D004	67	D006	D010	D014	209

Shut-off values are based on 20 PSIG air pressure to the actuator when the valve is closed.

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

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

TEMP.	250 THD (RATINGS ARE PSIG)
+20 to 150° F	400
350° F	300

WEIGHTS

ITEM	WEIGHT
VALVE SIZE	**LBS**
1/2", 3/4", 1"	8-1/2
1-1/4" & 1-1/2"	14-1/2
2"	18-1/2
ACTUATOR	**LBS**
50	13
84	48-1/2
POSITIONER	**LBS**
42	1
760P	8

Actual shipping weights may vary.

SINGLE SEATED IRON (NORMALLY OPEN) 2-1/2" - 6"

VA2010CA-D002

VA2014CC-D015

▸ APPLICATION:

Control of Saturated Steam; Water; Water and Glycol Solutions to 60%. Seat Leakage ANSI Class III & IV.

▸ VALVE CONSTRUCTION:

Body:	ANSI B16.1 Iron 125lb Flange or 250lb Flange
Trim:	EQ%, Bronze or 300 Series Stainless Steel
Stem:	316 Stainless Steel
Bonnet:	Brass
Packing:	EPDM Lip Packing (+20 to 350ºF) Standard (EPDM is **not** suitable for use with oils, hydrocarbons, or acids.) PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
Agency Approval:	CRN # CSA - OC20496 (Excludes 250# Type 22/32)

▸ TRIM LIMITS (Flowing Differential Pressure):

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

▸ CONTROL ACTION:

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

▸ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

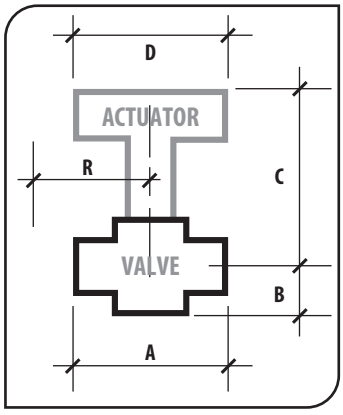
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▸ Dimensions (IN):

Component		Dimension by Valve Size (IN)				
Variable		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	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	23-3/4	24-3/8
C	115 Actuator	33-1/2	34-1/8	35-1/8	35-3/4	36-3/8
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
D	115 Actuator	16-3/4	16-3/4	16-3/4	16-3/4	16-3/4
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
R*	115 w/760P	11-1/4	11-1/4	11-1/4	11-1/4	11-1/4



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).
*Center line of Actuator to Outside Point of Positioner

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.

SINGLE SEATED IRON (NORMALLY OPEN) 2-1/2" - 6"

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

Valve					50 Actuator 20 PSIG Air Supply 50			
					ALL RANGES			
					3-8 PSIG Spring Range	w/42 Positioner	SHUT OFF PSID	
Cv	Size (IN)	Flng	Trim	Valve Code	Actuator Code	Actuator Code	Class III	Class IV
65	2.5	125	BRZ	VA2010CA	D000	D002	96	86
65	2.5	125	S/S	VA2010CC	D000	D002	96	86
65	2.5	250	BRZ	VA2010DA	D000	D002	96	86
65	2.5	250	S/S	VA2010DC	D000	D002	96	86
90	3	125	BRZ	VA2011CA	D000	D002	64	55
90	3	125	S/S	VA2011CC	D000	D002	64	55
90	3	250	BRZ	VA2011DA	D000	D002	64	55
90	3	250	S/S	VA2011DC	D000	D002	64	55

Shut-off values are based on 20 PSIG air pressure to the actuator when the valve is closed.

50 ACTUATOR SPECIFICATIONS:

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

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

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

WEIGHTS

ITEM	WEIGHT (LBS)	
VALVE SIZE	125 FLG	250 FLG
2-1/2"	55	64
3"	72	77
4"	119	131
5"	134	166
6"	175	233
ACTUATOR	LBS	
50	13	
84	48-1/2	
115	84	
POSITIONER	LBS	
42	1	
760P	8	

Actual shipping weights may vary.

Valve					84 Actuator 20 PSIG Air Supply 84							
					3-15 PSIG SPRING RANGE			ALL OTHER RANGES				
						SHUT OFF PSID		3-9 PSIG	w/42	w/760	SHUT OFF PSID	
Cv	Size (IN)	Flng	Trim	Valve Code	Actuator Code	Class III	Class IV	Spring Range Actuator Code	Positioner Actuator Code	Positioner Actuator Code	Class III	Class IV
65	2.5	125	BRZ	VA2010CA	D004	59	49	D006	D010	D014	162	150
65	2.5	125	S/S	VA2010CC	D004	59	49	D006	D010	D014	162	150
65	2.5	250	BRZ	VA2010DA	D004	59	49	D006	D010	D014	162	150
65	2.5	250	S/S	VA2010DC	D004	59	49	D006	D010	D014	162	150
90	3	125	BRZ	VA2011CA	D004	39	30	D006	D010	D014	110	100
90	3	125	S/S	VA2011CC	D004	39	30	D006	D010	D014	110	100
90	3	250	BRZ	VA2011DA	D004	39	30	D006	D010	D014	110	100
90	3	250	S/S	VA2011DC	D004	39	30	D006	D010	D014	110	100
170	4	125	BRZ	VA2013CA	D005	19	12	D007	D011	D015	59	50
170	4	125	S/S	VA2013CC	D005	19	12	D007	D011	D015	59	50
170	4	250	BRZ	VA2013DA	D005	19	12	D007	D011	D015	59	50
170	4	250	S/S	VA2013DC	D005	19	12	D007	D011	D015	59	50
280	5	125	BRZ	VA2014CA	D005	11	4	D007	D011	D015	36	30
280	5	125	S/S	VA2014CC	D005	11	4	D007	D011	D015	36	30
280	5	250	BRZ	VA2014DA	D005	11	4	D007	D011	D015	36	30
280	5	250	S/S	VA2014DC	D005	11	4	D007	D011	D015	36	30
360	6	125	BRZ	VA2015CA	D005	6	0	D007	D011	D015	24	19
360	6	125	S/S	VA2015CC	D005	6	0	D007	D011	D015	24	19
360	6	250	BRZ	VA2015DA	D005	6	0	D007	D011	D015	24	19
360	6	250	S/S	VA2015DC	D005	6	0	D007	D011	D015	24	19

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

Valve					115 Actuator 20 PSIG Air Supply 115						
					3-15 PSIG SPRING RANGE			ALL OTHER RANGES			
						SHUT OFF PSID		3-9 PSIG	w/760	SHUT OFF PSID	
Cv	Size (IN)	Flng	Trim	Valve Code	Actuator Code	Class III	Class IV	Spring Range Actuator Code	Positioner Actuator Code	Class III	Class IV
65	2.5	125	S/S	VA2010CD	D018	91	75	D021	D027	175	175
65	2.5	250	S/S	VA2010DD	D018	91	75	D021	D027	231	215
90	3	125	S/S	VA2011CD	D018	61	48	D021	D027	158	145
90	3	250	S/S	VA2011DD	D018	61	48	D021	D027	158	145
170	4	125	S/S	VA2013CD	D019	32	22	D022	D028	87	77
170	4	250	S/S	VA2013DD	D019	32	22	D022	D028	87	77
280	5	125	S/S	VA2014CD	D019	19	11	D022	D028	54	46
280	5	250	S/S	VA2014DD	D019	19	11	D022	D028	54	46
360	6	125	S/S	VA2015CD	D019	12	5	D022	D028	36	30
360	6	250	S/S	VA2015DD	D019	12	5	D022	D028	36	30

Shut-off values are based on 20 PSIG air pressure to the actuator when the valve is closed.

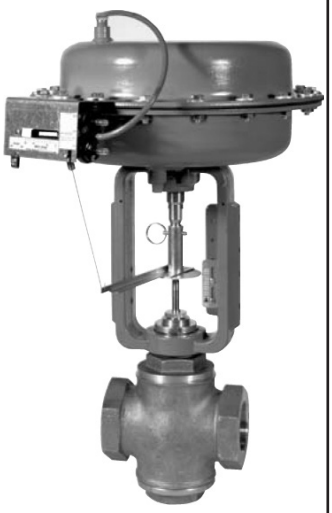
115 ACTUATOR SPECIFICATIONS:

Effective Area: 115 Square Inches
Construction: Acrylic Enamel Coated Aluminum Yoke and Steel Diaphragm Chamber with Buna-N Diaphragm
Mounting: Vertical Above Valve

PNEUMATICALLY ACTUATED

SINGLE SEATED BRONZE (NORMALLY CLOSED) 1/2"-2"

VA7008AC-D003



VA7009AC-D012

▸ APPLICATION:

Control of Saturated Steam; Water; Water and Glycol Solutions to 60%. Seat Leakage ANSI Class IV

▸ VALVE CONSTRUCTION:

Body:	ANSI B16.15 Bronze 250lb. Threaded (NPT)
Trim:	EQ%, 300 Series Stainless Steel
Stem:	316 Stainless Steel
Bonnet:	Brass / Bronze
Packing:	EPDM Lip Packing (+20 to 350ºF) Standard (EPDM is **not** suitable for use with oils, hydrocarbons, or acids.) PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
Agency Approvals:	CRN # CSA - OC18997 (Bronze Body Only)

▸ TRIM LIMITS (Flowing Differential Pressure):

S/S Trim:	Liquids or Steam 100 PSID

▸ CONTROL ACTION:

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

▸ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

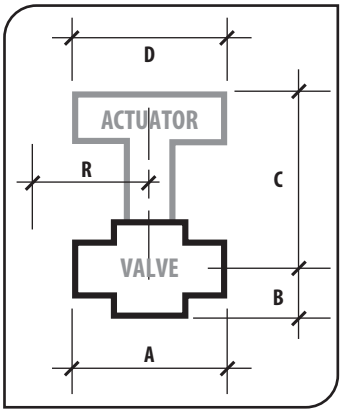
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▸ Dimensions (IN):

Component		Dimension by Valve Size (IN)		
Variable		1/2 & 3/4, 1	1-1/4 & 1-1/2	2
A	250THD	4-7/8	5-3/4	6-1/2
B	250THD	2-3/4	3-1/4	3-5/8
C	50 Actuator	15-1/2	16-1/8	16-3/8
C	84 Actuator	18-7/8	19-1/2	19-3/4
D	50 Actuator	10-1/2	10-1/2	10-1/2
D	84 Actuator	13-7/8	13-7/8	13-7/8
R*	50 w/42	7-1/2	7-1/2	7-1/2
R*	84 w/42	9	9	9
R*	84 w/760P	8-1/8	8-1/8	8-1/8



Allow 4-1/8 inch clearance above actuator for removal / service.

*Center line of Actuator to outside point of Positioner.

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.

SINGLE SEATED BRONZE (NORMALLY CLOSED) 1/2"-2"

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

Valve					50 Actuator 20 PSIG Air Supply 50		
					ALL RANGES		
Cv	Size (IN)	Thrd NPT	Trim	Valve Code	8-13 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID Class IV
4.9	0.5	250	S/S	VA7004AC	D001	D003	100
7.2	0.75	250	S/S	VA7005AC	D001	D003	100
10	1	250	S/S	VA7006AC	D001	D003	100
22.2	1.25	250	S/S	VA7007AC	D001	D003	100
24	1.5	250	S/S	VA7008AC	D001	D003	100
40	2	250	S/S	VA7009AC	D001	D003	61

Shut-off values are based on 0 PSIG air pressure to the actuator when the valve is closed.

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 84						
					9-15 PSIG SPRING RANGE		3-15 PSIG SPRING RANGE		ALL OTHER RANGES		
Cv	Size (IN)	Thrd NPT	Trim	Valve Code	Actuator Code	SHUT OFF PSID Class IV	Actuator Code	SHUT OFF PSID Class IV	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class IV
4.9	0.5	250	S/S	VA7004AC	D008	400	D004	244	D012	D016	400
7.2	0.75	250	S/S	VA7005AC	D008	400	D004	244	D012	D016	400
10	1	250	S/S	VA7006AC	D008	400	D004	132	D012	D016	400
22.2	1.25	250	S/S	VA7007AC	D008	272	D004	44	D035	D036	386
24	1.5	250	S/S	VA7008AC	D008	272	D004	44	D035	D036	386
40	2	250	S/S	VA7009AC	D008	161	D004	19	D035	D036	232

Shut-off values are based on 0 PSIG air pressure to the actuator when the valve is closed.

84 ACTUATOR SPECIFICATIONS:

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

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

TEMP.	250 THD (RATINGS ARE PSIG)
+20 to 150° F	400
350° F	300

WEIGHTS

ITEM	WEIGHT
VALVE SIZE	**LBS**
1/2", 3/4", 1"	8-1/2
1-1/4" & 1-1/2"	14-1/2
2"	18-1/2
ACTUATOR	**LBS**
50	13
84	48-1/2
POSITIONER	**LBS**
42	1
760P	8

Actual shipping weights may vary.

SINGLE SEATED IRON (NORMALLY CLOSED) 2-1/2" - 6"

VA7010CA-D003

VA7014CC-D017

▶ APPLICATION:

Control of Saturated Steam; Water; Water and Glycol Solutions to 60%. Seat Leakage ANSI Class III & IV.

▶ VALVE CONSTRUCTION:

Body:	ANSI B16.1 Iron 125lb Flange or 250lb Flange
Trim:	EQ%, Bronze or 300 Series Stainless Steel
Stem:	316 Stainless Steel
Bonnet:	Brass
Packing:	EPDM Lip Packing (+20 to 350ºF) Standard (EPDM is **not** suitable for use with oils, hydrocarbons, or acids.) PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
Agency Approval:	CRN # CSA - OC20496 (Excludes 250# Type 22/32)

▶ TRIM LIMITS (Flowing Differential Pressure):

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

▶ CONTROL ACTION:

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

▶ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

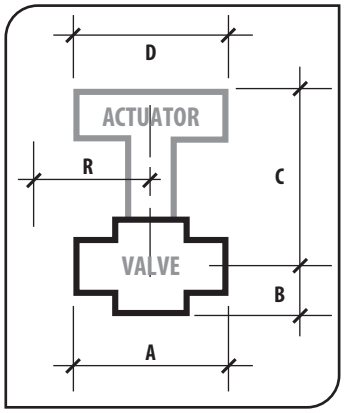
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▶ 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	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
C	115 Actuator	33-1/2	34-1/8	35-1/8	34	34-3/4
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
D	115 Actuator	16-3/4	16-3/4	16-3/4	16-3/4	16-3/4
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
R*	115 w/760P	11-1/4	11-1/4	11-1/4	11-1/4	11-1/4



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).
*Center line of Actuator to Outside Point of Positioner

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.

SINGLE SEATED IRON (NORMALLY CLOSED) 2-1/2" - 6"

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

Valve					50 Actuator 20 PSIG Air Supply 50			
					ALL RANGES			
					8-13 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID	
Cv	Size (IN)	Flng	Trim	Valve Code			Class III	Class IV
65	2.5	125	BRZ	VA7010CA	D001	D003	55	46
65	2.5	125	S/S	VA7010CC	D001	D003	55	46
65	2.5	250	BRZ	VA7010DA	D001	D003	55	46
65	2.5	250	S/S	VA7010DC	D001	D003	55	46
90	3	125	BRZ	VA7011CA	D001	D003	36	27
90	3	125	S/S	VA7011CC	D001	D003	36	27
90	3	250	BRZ	VA7011DA	D001	D003	36	27
90	3	250	S/S	VA7011DC	D001	D003	36	27

Shut-off values are based on 0 PSIG air pressure to the actuator when the valve is closed.

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 84									
					9-15 PSIG SPRING RANGE			3-15 PSIG SPRING RANGE			ALL OTHER RANGES			
					Actuator Code	SHUT OFF PSID		Actuator Code	SHUT OFF PSID		w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID	
Cv	Size (IN)	Flng	Trim	Valve Code		Class III	Class IV		Class III	Class IV			Class III	Class IV
65	2.5	125	BRZ	VA7010CA	D008	128	121	D004	25	16	D035	D036	175	165
65	2.5	125	S/S	VA7010CC	D008	128	121	D004	25	16	D035	D036	175	165
65	2.5	250	BRZ	VA7010DA	D008	128	121	D004	25	16	D035	D036	179	165
65	2.5	250	S/S	VA7010DC	D008	128	121	D004	25	16	D035	D036	179	165
90	3	125	BRZ	VA7011CA	D008	86	79	D004	15	6	D035	D036	122	115
90	3	125	S/S	VA7011CC	D008	86	79	D004	15	6	D035	D036	122	115
90	3	250	BRZ	VA7011DA	D008	86	79	D004	15	6	D035	D036	122	115
90	3	250	S/S	VA7011DC	D008	86	79	D004	15	6	D035	D036	122	115
170	4	125	BRZ	VA7013CA	D009	46	39	D005	6	0	D013	D017	46	39
170	4	125	S/S	VA7013CC	D009	46	39	D005	6	0	D013	D017	46	39
170	4	250	BRZ	VA7013DA	D009	46	39	D005	6	0	D013	D017	46	39
170	4	250	S/S	VA7013DC	D009	46	39	D005	6	0	D013	D017	46	39
280	5	125	BRZ	VA7014CA	D009	28	22	-	0	0	D013	D017	28	22
280	5	125	S/S	VA7014CC	D009	28	22	-	0	0	D013	D017	28	22
280	5	250	BRZ	VA7014DA	D009	28	22	-	0	0	D013	D017	28	22
280	5	250	S/S	VA7014DC	D009	28	22	-	0	0	D013	D017	28	22
360	6	125	BRZ	VA7015CA	D009	18	13	-	0	0	D013	D017	18	13
360	6	125	S/S	VA7015CC	D009	18	13	-	0	0	D013	D017	18	13
360	6	250	BRZ	VA7015DA	D009	18	13	-	0	0	D013	D017	18	13
360	6	250	S/S	VA7015DC	D009	18	13	-	0	0	D013	D017	18	13

Valve					115 Actuator 20 PSIG Air Supply 115						
					3-15 PSIG SPRING RANGE			ALL OTHER RANGES			
						SHUT OFF PSID		9-15 PSIG Spring Range Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID	
Cv	Size (IN)	Flng	Trim	Valve Code	Actuator Code	Class III	Class IV			Class III	Class IV
65	2.5	125	S/S	VA7010CD	D018	44	29	D024	D030	175	175
65	2.5	250	S/S	VA7010DD	D018	44	29	D024	D030	185	176
90	3	125	S/S	VA7011CD	D018	28	15	D024	D030	126	116
90	3	250	S/S	VA7011DD	D018	28	15	D024	D030	126	116
170	4	125	S/S	VA7013CD	D019	13	4	D025	D031	68	59
170	4	250	S/S	VA7013DD	D019	13	4	D025	D031	68	59
280	5	125	S/S	VA7014CD	D019	7	0	D025	D031	42	34
280	5	250	S/S	VA7014DD	D019	7	0	D025	D031	42	34
360	6	125	S/S	VA7015CD	-	0	0	D025	D031	28	22
360	6	250	S/S	VA7015DD	-	0	0	D025	D031	28	22

Shut-off values are based on 0 PSIG air pressure to the actuator when the valve is closed.

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

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

WEIGHTS

ITEM	WEIGHT (LBS)	
VALVE SIZE	125 FLG	250 FLG
2-1/2"	55	64
3"	72	77
4"	119	131
5"	134	166
6"	175	233
ACTUATOR	LBS	
50	13	
84	48-1/2	
115	84	
POSITIONER	LBS	
42	1	
760P	8	

Actual shipping weights may vary.

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

115 ACTUATOR SPECIFICATIONS:

Effective Area: 115 Square Inches
Construction: Acrylic Enamel Coated Aluminum Yoke and Steel Diaphragm Chamber with Buna-N Diaphragm
Mounting: Vertical Above Valve

SINGLE SEATED CYLINDER BALANCED IRON (NORMALLY OPEN) 2-1/2"- 6"

VA2310CA-D002

VA2314CC-D042

▸ APPLICATION:

Control of Saturated Steam; Water; Water and Glycol Solutions to 60%. Seat Leakage ANSI Class 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 350ºF) Standard
	(EPDM is **not** suitable for use with oils, hydrocarbons, or acids.)
	PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
Agency Approval:	CRN # CSA - OC20496 (Excludes 250# Type 22/32)

▸ TRIM LIMITS (Flowing Differential Pressure):

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

▸ CONTROL ACTION:

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

▸ ACTUATOR / POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

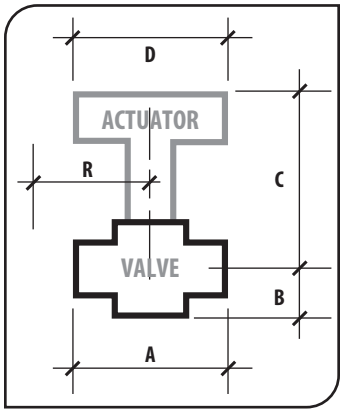
Control Signal:	3-15 PSIG (Factory Setting)
	Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▸ Dimensions (IN):

Component		Dimension by Valve Size (IN)				
Variable		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	50 Actuator	18-3/8	19-1/4	N/A	N/A	N/A
C	84 Actuator	21-3/4	22-5/8	23-3/4	24-1/4	24-7/8
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). *Center line of Actuator to Outside point of Positioner

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.

SINGLE SEATED CYLINDER BALANCED IRON (NORMALLY OPEN) 2-1/2"- 6"

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

Valve					50 Actuator 20 PSIG Air Supply 50			
					ALL RANGES			
					3-8 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID	
Cv	Size (IN)	Flng	Trim	Valve Code			Class III	Class IV
65	2.5	125	BRZ	VA2310CA	D000	D002	175	175
65	2.5	125	S/S	VA2310CC	D000	D002	175	175
65	2.5	250	BRZ	VA2310DA	D000	D002	400	400
65	2.5	250	S/S	VA2310DC	D000	D002	400	400
90	3	125	BRZ	VA2311CA	D000	D002	175	175
90	3	125	S/S	VA2311CC	D000	D002	175	175
90	3	250	BRZ	VA2311DA	D000	D002	400	400
90	3	250	S/S	VA2311DC	D000	D002	400	400

Shut-off values are based on 20 PSIG air pressure to the actuator when the valve is closed.

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 84								
					3-15 PSIG SPRING RANGE			ALL OTHER RANGES					
					Actuator Code	SHUT OFF PSID		3-9 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID		
Cv	Size (IN)	Flng	Trim	Valve Code		Class III	Class IV				Class III	Class IV	
65	2.5	125	BRZ	VA2310CA	D004	175	175	D006	D010	D014	175	175	
65	2.5	125	S/S	VA2310CC	D004	175	175	D006	D010	D014	175	175	
65	2.5	250	BRZ	VA2310DA	D004	400	365	D006	D010	D014	400	400	
65	2.5	250	S/S	VA2310DC	D004	400	365	D006	D010	D014	400	400	
90	3	125	BRZ	VA2311CA	D004	175	175	D006	D010	D014	175	175	
90	3	125	S/S	VA2311CC	D004	175	175	D006	D010	D014	175	175	
90	3	250	BRZ	VA2311DA	D004	393	259	D006	D010	D014	400	400	
90	3	250	S/S	VA2311DC	D004	393	259	D006	D010	D014	400	400	
170	4	125	BRZ	VA2313CA	D037	175	109	D038	D040	D042	175	175	
170	4	125	S/S	VA2313CC	D037	175	109	D038	D040	D042	175	175	
170	4	250	BRZ	VA2313DA	D037	249	109	D038	D040	D042	400	400	
170	4	250	S/S	VA2313DC	D037	249	109	D038	D040	D042	400	400	
280	5	125	BRZ	VA2314CA	D037	161	20	D038	D040	D042	175	175	
280	5	125	S/S	VA2314CC	D037	161	20	D038	D040	D042	175	175	
280	5	250	BRZ	VA2314DA	D037	161	20	D038	D040	D042	400	400	
280	5	250	S/S	VA2314DC	D037	161	20	D038	D040	D042	400	400	
360	6	125	BRZ	VA2315CA	D037	92	0	D038	D040	D042	175	175	
360	6	125	S/S	VA2315CC	D037	92	0	D038	D040	D042	175	175	
360	6	250	BRZ	VA2315DA	D037	92	0	D038	D040	D042	400	335	
360	6	250	S/S	VA2315DC	D037	92	0	D038	D040	D042	400	335	

Shut-off values are based on 20 PSIG air pressure to the actuator when the valve is closed.

84 ACTUATOR SPECIFICATIONS:

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

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

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

CYLINDER SEAL TEMPERATURE LIMITS

+20 to 300º F (BRZ trim)
+20 to 350º F (300 SS trim)

WEIGHTS

ITEM	WEIGHT (LBS)	
VALVE SIZE	125 FLG	250 FLG
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.

SINGLE SEATED CYLINDER BALANCED IRON (NORMALLY CLOSED) 2-1/2"- 6"

VA7310CA-D003

VA7314CC-D043

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 and Glycol Solutions to 60%. Seat Leakage ANSI Class 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 350ºF) Standard
	(EPDM is **not** suitable for use with oils, hydrocarbons, or acids.)
	PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
Agency Approval:	CRN # CSA - OC20496 (Excludes 250# Type 22/32)

▶ TRIM LIMITS (Flowing Differential Pressure):

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

▶ CONTROL ACTION:

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

▶ ACTUATOR / POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

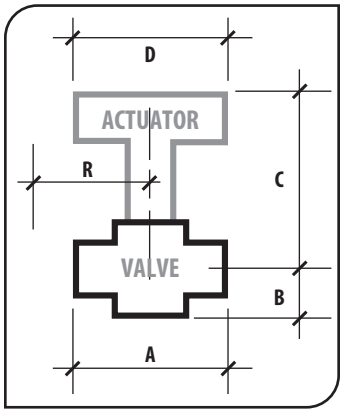
Control Signal:	3-15 PSIG (Factory Setting)
	Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▶ Dimensions (IN):

Component		Dimension by Valve Size (IN)				
Variable		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		4-1/2	6	6-7/8	8-1/8	8-3/4
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).
*Center line of Actuator to Outside point of Positioner

SINGLE SEATED CYLINDER BALANCED IRON (NORMALLY CLOSED) 2-1/2"- 6"

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

Valve					50 Actuator 20 PSIG Air Supply 50			
					ALL RANGES			
					8-13 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID	
Cv	Size (IN)	Flng	Trim	Valve Code			Class III	Class IV
65	2.5	125	BRZ	VA7310CA	D001	D003	175	175
65	2.5	125	S/S	VA7310CC	D001	D003	175	175
65	2.5	250	BRZ	VA7310DA	D001	D003	400	400
65	2.5	250	S/S	VA7310DC	D001	D003	400	400
90	3	125	BRZ	VA7311CA	D001	D003	175	175
90	3	125	S/S	VA7311CC	D001	D003	175	175
90	3	250	BRZ	VA7311DA	D001	D003	400	336
90	3	250	S/S	VA7311DC	D001	D003	400	336

Shut-off values are based on 0 PSIG air pressure to the actuator when the valve is closed.

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 84							
					3-15 PSIG SPRING RANGE			ALL OTHER RANGES				
						SHUT OFF PSID		9-15PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID	
Cv	Size (IN)	Flng	Trim	Valve Code	Actuator Code	Class III	Class IV				Class III	Class IV
65	2.5	125	BRZ	VA7310CA	D004	175	133	D008	D012	D016	175	175
65	2.5	125	S/S	VA7310CC	D004	175	133	D008	D012	D016	175	175
65	2.5	250	BRZ	VA7310DA	D004	342	133	D008	D012	D016	400	400
65	2.5	250	S/S	VA7310DC	D004	342	133	D008	D012	D016	400	400
90	3	125	BRZ	VA7311CA	D004	175	28	D008	D012	D016	175	175
90	3	125	S/S	VA7311CC	D004	175	28	D008	D012	D016	175	175
90	3	250	BRZ	VA7311DA	D004	224	28	D008	D012	D016	400	400
90	3	250	S/S	VA7311DC	D004	224	28	D008	D012	D016	400	400
170	4	125	BRZ	VA7313CA	D037	83	0	D039	D041	D043	175	175
170	4	125	S/S	VA7313CC	D037	83	0	D039	D041	D043	175	175
170	4	250	BRZ	VA7313DA	D037	83	0	D039	D041	D043	400	400
170	4	250	S/S	VA7313DC	D037	83	0	D039	D041	D043	400	400
280	5	125	BRZ	VA7314CA	D037	12	0	D039	D041	D043	175	175
280	5	125	S/S	VA7314CC	D037	12	0	D039	D041	D043	175	175
280	5	250	BRZ	VA7314DA	D037	12	0	D039	D041	D043	400	400
280	5	250	S/S	VA7314DC	D037	12	0	D039	D041	D043	400	400
360	6	125	BRZ	VA7315CA	-	0	0	D039	D041	D043	175	175
360	6	125	S/S	VA7315CC	-	0	0	D039	D041	D043	175	175
360	6	250	BRZ	VA7315DA	-	0	0	D039	D041	D043	400	248
360	6	250	S/S	VA7315DC	-	0	0	D039	D041	D043	400	248

Shut-off values are based on 0 PSIG air pressure to the actuator when the valve is closed.

84 ACTUATOR SPECIFICATIONS:

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

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

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

CYLINDER SEAL TEMPERATURE LIMITS

+20 to 300º F (BRZ trim)
+20 to 350º F (300 SS trim)

WEIGHTS

ITEM	WEIGHT (LBS)	
VALVE SIZE	125 FLG	250 FLG
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.

DOUBLE SEATED BALANCED IRON (NORMALLY OPEN) 2-1/2" - 10"

VA2210CA-D002

VA2214CC-D011

▸ APPLICATION:

Control of Saturated Steam; Water; Water and Glycol Solutions to 60%. Seat Leakage ANSI Class III.

▸ VALVE CONSTRUCTION:

Body:	ANSI B16.1 Iron 125lb Flange or 250lb Flange
Trim:	EQ%, Bronze or 300 Series Stainless Steel
Stem:	316 Stainless Steel
Bonnet:	Brass
Packing:	EPDM Lip Packing (+20 to 350ºF) Standard (EPDM is **not** suitable for use with oils, hydrocarbons, or acids.) PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
Agency Approval:	CRN # CSA - OC20496 (Excludes 250# Type 22/32)

▸ TRIM LIMITS (Flowing Differential Pressure):

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

▸ CONTROL ACTION:

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

▸ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

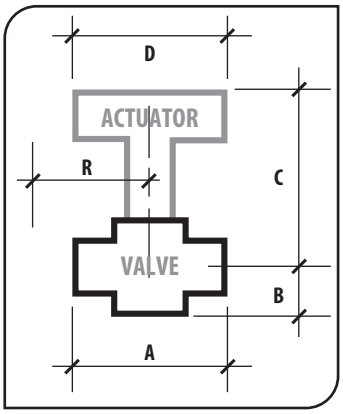
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▸ Dimensions (IN):

Component		Dimension by Valve Size (IN)						
Variable		2-1/2	3	4	5	6	8	10
A	125 FLG	7-3/4	9	11-3/8	12	14-1/8	16-1/4	20
A	250 FLG	8-3/8	9-3/4	12	12-7/8	14-1/2	16-1/4	21-3/8
B		4-1/8	4-3/8	5	6-7/8	7-5/8	8-7/8	10-7/8
C	50 Actuator	17-1/2	17-3/4	19-1/4	N/A	N/A	N/A	N/A
C	84 Actuator	20-7/8	21-1/8	22-5/8	23-5/8	24-1/2	25-5/8	27-1/4
D	50 Actuator	10-1/2	10-1/2	10-1/2	N/A	N/A	N/A	N/A
D	84 Actuator	13-7/8	13-7/8	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	7-1/2	N/A	N/A	N/A	N/A
R*	84 w/42	9	9	9	9	9	9	9
R*	84 w/760P	8-1/8	8-1/8	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).
*Center line of Actuator to Outside Point of Positioner

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.

DOUBLE SEATED BALANCED IRON (NORMALLY OPEN) 2-1/2" - 10"

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

Valve					50 Actuator 20 PSIG Air Supply 50		
					ALL RANGES		
Cv	Size (IN)	Flng	Trim	Valve Code	3-8 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID Class III
70	2.5	125	BRZ	VA2210CA	D000	D002	100
70	2.5	125	S/S	VA2210CC	D000	D002	100
70	2.5	250	BRZ	VA2210DA	D000	D002	100
70	2.5	250	S/S	VA2210DC	D000	D002	100
100	3	125	BRZ	VA2211CA	D000	D002	100
100	3	125	S/S	VA2211CC	D000	D002	100
100	3	250	BRZ	VA2211DA	D000	D002	100
100	3	250	S/S	VA2211DC	D000	D002	100
200	4	125	BRZ	VA2213CA	D000	D002	100
200	4	125	S/S	VA2213CC	D000	D002	100
200	4	250	BRZ	VA2213DA	D000	D002	100
200	4	250	S/S	VA2213DC	D000	D002	100

Shut-off values are based on 20 PSIG air pressure to the actuator when the valve is closed.

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 84					
					3-15 PSIG SPRING RANGE		ALL OTHER RANGES			
Cv	Size (IN)	Flng	Trim	Valve Code	Actuator Code	SHUT OFF PSID Class III	3-9 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class III
70	2.5	125	BRZ	VA2210CA	D004	175	D006	D010	D014	175
70	2.5	125	S/S	VA2210CC	D004	175	D006	D010	D014	175
70	2.5	250	BRZ	VA2210DA	D004	400	D006	D010	D014	400
70	2.5	250	S/S	VA2210DC	D004	400	D006	D010	D014	400
100	3	125	BRZ	VA2211CA	D004	175	D006	D010	D014	175
100	3	125	S/S	VA2211CC	D004	175	D006	D010	D014	175
100	3	250	BRZ	VA2211DA	D004	400	D006	D010	D014	400
100	3	250	S/S	VA2211DC	D004	400	D006	D010	D014	400
200	4	125	BRZ	VA2213CA	D004	175	D006	D010	D014	175
200	4	125	S/S	VA2213CC	D004	175	D006	D010	D014	175
200	4	250	BRZ	VA2213DA	D004	312	D006	D010	D014	400
200	4	250	S/S	VA2213DC	D004	312	D006	D010	D014	400
260	5	125	BRZ	VA2214CA	D005	175	D007	D011	D015	175
260	5	125	S/S	VA2214CC	D005	175	D007	D011	D015	175
260	5	250	BRZ	VA2214DA	D005	202	D007	D011	D015	400
260	5	250	S/S	VA2214DC	D005	202	D007	D011	D015	400
350	6	125	BRZ	VA2215CA	D005	125	D007	D011	D015	175
350	6	125	S/S	VA2215CC	D005	125	D007	D011	D015	175
350	6	250	BRZ	VA2215DA	D005	125	D007	D011	D015	400
350	6	250	S/S	VA2215DC	D005	125	D007	D011	D015	400
680	8	125	BRZ	VA2217CA	-	0	D007	D011	D015	175
680	8	125	S/S	VA2217CC	-	0	D007	D011	D015	175
680	8	250	BRZ	VA2217DA	-	0	D007	D011	D015	400
680	8	250	S/S	VA2217DC	-	0	D007	D011	D015	400
960	10	125	BRZ	VA2219CE	-	0	D007	D011	D015	175
960	10	125	S/S	VA2219CG	-	0	D007	D011	D015	175
960	10	250	BRZ	VA2219DE	-	0	D007	D011	D015	306
960	10	250	S/S	VA2219DG	-	0	D007	D011	D015	306

Shut-off values are based on 20 PSIG air pressure to the actuator when the valve is closed.

84 ACTUATOR SPECIFICATIONS:

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

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

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

WEIGHTS

ITEM	WEIGHT (LBS)	
VALVE SIZE	125 FLG	250 FLG
2-1/2"	32	42
3"	42	54
4"	77	96
5"	124	162
6"	169	220
8"	290	380
10"	435	540
ACTUATOR	LBS	
50	13	
84	48-1/2	
POSITIONER	LBS	
42	1	
760P	8	

Actual shipping weights may vary.

DOUBLE SEATED BALANCED IRON (NORMALLY CLOSED) 2-1/2" - 10"

VA7210CA-D003

VA7214CC-D013

▸ APPLICATION:

Control of Saturated Steam; Water; Water and Glycol Solutions to 60%. Seat Leakage ANSI Class III.

▸ VALVE CONSTRUCTION:

Body:	ANSI B16.1 Iron 125lb Flange or 250lb Flange
Trim:	EQ%, Bronze or 300 Series Stainless Steel
Stem:	316 Stainless Steel
Bonnet:	Brass
Packing:	EPDM Lip Packing (+20 to 350ºF) Standard (EPDM is **not** suitable for use with oils, hydrocarbons, or acids.) PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
Agency Approval:	CRN # CSA - OC20496 (Excludes 250# Type 22/32)

▸ TRIM LIMITS (Flowing Differential Pressure):

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

▸ CONTROL ACTION:

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

▸ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

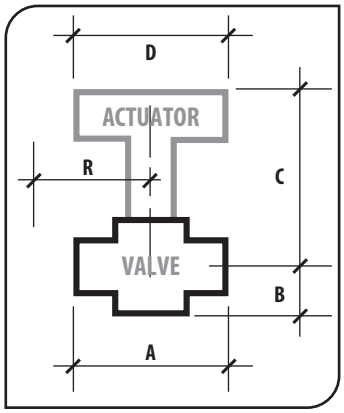
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▸ Dimensions (IN):

Component		Dimension by Valve Size (IN)						
Variable		2-1/2	3	4	5	6	8	10
A	125 FLG	7-3/4	9	11-3/8	12	14-1/8	16-1/4	20
A	250 FLG	8-3/8	9-3/4	12	12-7/8	14-1/2	16-1/4	21-3/8
B		4-7/8	5-1/8	6-3/8	6-7/8	7-5/8	8-7/8	10-7/8
C	50 Actuator	16-3/4	17	17-7/8	N/A	N/A	N/A	N/A
C	84 Actuator	20-1/8	20-3/8	21-1/4	23-5/8	24-1/2	25-5/8	27-1/4
D	50 Actuator	10-1/2	10-1/2	10-1/2	N/A	N/A	N/A	N/A
D	84 Actuator	13-7/8	13-7/8	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	7-1/2	N/A	N/A	N/A	N/A
R*	84 w/42	9	9	9	9	9	9	9
R*	84 w/760P	8-1/8	8-1/8	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).

*Center line of Actuator to Outside Point of Positioner

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.

DOUBLE SEATED BALANCED IRON (NORMALLY CLOSED) 2-1/2" - 10"

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

Valve					50 Actuator 20 PSIG Air Supply 50		
					ALL RANGES		
Cv	Size (IN)	Flng	Trim	Valve Code	8-13 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID Class III
70	2.5	125	BRZ	VA7210CA	D001	D003	100
70	2.5	125	S/S	VA7210CC	D001	D003	100
70	2.5	250	BRZ	VA7210DA	D001	D003	100
70	2.5	250	S/S	VA7210DC	D001	D003	100
100	3	125	BRZ	VA7211CA	D001	D003	100
100	3	125	S/S	VA7211CC	D001	D003	100
100	3	250	BRZ	VA7211DA	D001	D003	100
100	3	250	S/S	VA7211DC	D001	D003	100
200	4	125	BRZ	VA7213CA	D001	D003	100
200	4	125	S/S	VA7213CC	D001	D003	100
200	4	250	BRZ	VA7213DA	D001	D003	100
200	4	250	S/S	VA7213DC	D001	D003	100

Shut-off values are based on 0 PSIG air pressure to the actuator when the valve is closed.

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 84					
					3-15 PSIG SPRING RANGE		ALL OTHER RANGES			
Cv	Size (IN)	Flng	Trim	Valve Code	Actuator Code	SHUT OFF PSID Class III	9-15 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class III
70	2.5	125	BRZ	VA7210CA	D004	175	D008	D012	D016	175
70	2.5	125	S/S	VA7210CC	D004	175	D008	D012	D016	175
70	2.5	250	BRZ	VA7210DA	D004	233	D008	D012	D016	400
70	2.5	250	S/S	VA7210DC	D004	233	D008	D012	D016	400
100	3	125	BRZ	VA7211CA	D004	141	D008	D012	D016	175
100	3	125	S/S	VA7211CC	D004	141	D008	D012	D016	175
100	3	250	BRZ	VA7211DA	D004	141	D008	D012	D016	400
100	3	250	S/S	VA7211DC	D004	141	D008	D012	D016	400
200	4	125	BRZ	VA7213CA	D004	22	D008	D012	D016	175
200	4	125	S/S	VA7213CC	D004	22	D008	D012	D016	175
200	4	250	BRZ	VA7213DA	D004	22	D008	D012	D016	400
200	4	250	S/S	VA7213DC	D004	22	D008	D012	D016	400
260	5	125	BRZ	VA7214CA	-	0	D009	D013	D017	175
260	5	125	S/S	VA7214CC	-	0	D009	D013	D017	175
260	5	250	BRZ	VA7214DA	-	0	D009	D013	D017	400
260	5	250	S/S	VA7214DC	-	0	D009	D013	D017	400
350	6	125	BRZ	VA7215CA	-	0	D009	D013	D017	175
350	6	125	S/S	VA7215CC	-	0	D009	D013	D017	175
350	6	250	BRZ	VA7215DA	-	0	D009	D013	D017	400
350	6	250	S/S	VA7215DC	-	0	D009	D013	D017	400
680	8	125	BRZ	VA7217CA	-	0	D009	D013	D017	175
680	8	125	S/S	VA7217CC	-	0	D009	D013	D017	175
680	8	250	BRZ	VA7217DA	-	0	D009	D013	D017	295
680	8	250	S/S	VA7217DC	-	0	D009	D013	D017	295
960	10	125	BRZ	VA7219CE	-	0	D009	D013	D017	175
960	10	125	S/S	VA7219CG	-	0	D009	D013	D017	175
960	10	250	BRZ	VA7219DE	-	0	D009	D013	D017	185
960	10	250	S/S	VA7219DG	-	0	D009	D013	D017	185

Shut-off values are based on 0 PSIG air pressure to the actuator when the valve is closed.

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

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

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

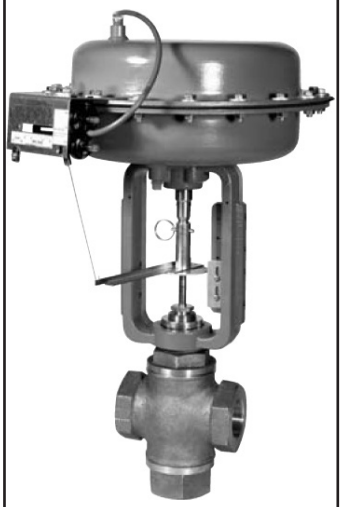
WEIGHTS

ITEM	WEIGHT (LBS)	
VALVE SIZE	125 FLG	250 FLG
2-1/2"	32	42
3"	42	54
4"	77	96
5"	124	162
6"	169	220
8"	290	380
10"	CF	CF
ACTUATOR	LBS	
50	13	
84	48-1/2	
POSITIONER	LBS	
42	1	
760P	8	

Actual shipping weights may vary.
CF = Consut Factory

3-WAY MIXING BRONZE 1/2"- 2"

VA30084AC-D003



VA3008AC-D012

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 and Glycol Solutions to 60%. Valves mix 2 flows together (Converging). Seat Leakage ANSI Class IV.

▶ VALVE CONSTRUCTION:

Body:	ANSI B16.15 Bronze 250lb. Threaded (NPT)
Trim:	Linear, 316 Series Stainless Steel
Stem:	316 Stainless Steel
Bonnet:	Brass / Bronze
Packing:	EPDM Lip Packing (+20 to 350ºF) Standard (EPDM is **not** suitable for use with oils, hydrocarbons, or acids.) PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
Agency Approvals:	CRN # CSA - OC18997 (Bronze Body Only)

▶ TRIM LIMITS (Flowing Differential Pressure):

S/S Trim:	Liquids to 100 PSID

▶ CONTROL ACTION:

Increasing Signal Closes Lower Port/Opens Upper Port; Operating Range may differ from Signal Range, Use a Positioner to Match Ranges

▶ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

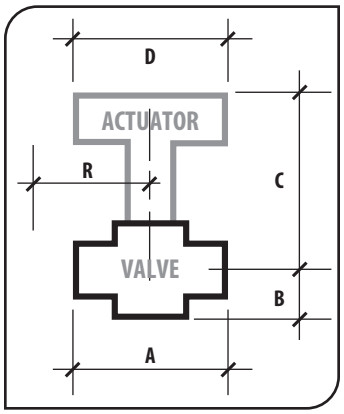
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▶ Dimensions (IN):

Component		Dimension by Valve Size (IN)		
Variable		1/2 & 3/4, 1	1-1/4 & 1-1/2	2
A	250THD	4-7/8	5-3/4	6-1/2
B	250THD	2-23/32	3-13/16	4
C	50 Actuator	15-1/2	16-1/8	16-3/8
C	84 Actuator	18-7/8	19-1/2	19-3/4
D	50 Actuator	10-1/2	10-1/2	10-1/2
D	84 Actuator	13-7/8	13-7/8	13-7/8
R*	50 w/42	7-1/2	7-1/2	7-1/2
R*	84 w/42	9	9	9
R*	84 w/760P	8-1/8	8-1/8	8-1/8



Allow 4-1/8 inch clearance above actuator for removal / service.

*Center line of Actuator to Outside point of Positioner

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

Valve					50 Actuator 20 PSIG Air Supply 50		
					ALL RANGES		
Cv	Size (IN)	Thrd NPT	Trim	Valve Code	8-13 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID Class IV
6.3	0.5	250	S/S	VA3004AC	D001	D003	100
8.2	0.75	250	S/S	VA3005AC	D001	D003	100
10	1	250	S/S	VA3006AC	D001	D003	100
18.5	1.25	250	S/S	VA3007AC	D001	D003	88
20	1.5	250	S/S	VA3008AC	D001	D003	88
40	2	250	S/S	VA3009AC	D001	D003	47

Shut-off values are based on 0 PSIG air pressure to the actuator when the upper port is closed and 20 PSIG air pressure to the actuator when the lower port is closed.

50 ACTUATOR SPECIFICATIONS:

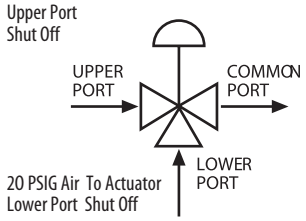
Effective Area: 50 Square Inches
Construction: Aluminum Yoke and Diaphragm Chamber with Neoprene Diaphragm.
Mounting: Vertical Above Valve

Valve					84 Actuator 20 PSIG Air Supply 84					
					3-15 PSIG SPRING RANGE		ALL OTHER RANGES			
Cv	Size (IN)	Thrd NPT	Trim	Valve Code	Actuator Code	SHUT OFF PSID Class IV	9-15 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class IV
6.3	0.5	250	S/S	VA3004AC	D004	132	D008	D012	D016	301
8.2	0.75	250	S/S	VA3005AC	D004	132	D008	D012	D016	301
10	1	250	S/S	VA3006AC	D004	132	D008	D012	D016	301
18.5	1.25	250	S/S	VA3007AC	D004	44	D008	D012	D016	120
20	1.5	250	S/S	VA3008AC	D004	44	D008	D012	D016	120
40	2	250	S/S	VA3009AC	D004	19	D008	D012	D016	67

Shut-off values are based on 0 PSIG air pressure to the actuator when the upper port is closed and 20 PSIG air pressure to the actuator when the lower port is closed.

84 ACTUATOR SPECIFICATIONS:

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



ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

TEMP.	250 THD (RATINGS ARE PSIG)
+20 to 150° F	400
350° F	300

WEIGHTS

ITEM	WEIGHT
VALVE SIZE	LBS
1/2", 3/4", 1"	9
1-1/4" & 1-1/2"	15-1/2
2"	20
ACTUATOR	LBS
50	13
84	48-1/2
POSITIONER	LBS
42	1
760P	8

Actual shipping weights may vary.

3-WAY MIXING IRON 2-1/2" - 8"

VA3010CA-D003

VA3017CD-D032

VA3013CC-D017

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 and Glycol Solutions to 60%. Valves mix 2 flows together (Converging).
Seat Leakage ANSI Class III

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

▶ TRIM LIMITS (Flowing Differential Pressure):

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

▶ CONTROL ACTION:

Increasing Signal Closes Lower Port/Opens Upper Port ; Operating Range may differ from Signal Range, Use a Positioner to Match Ranges

▶ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

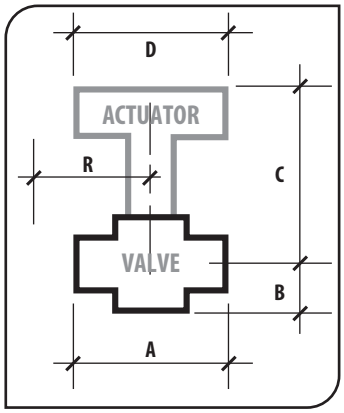
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▶ Dimensions (IN):

Component		Dimension by Valve Size (IN)					
Variable		2-1/2	3	4	5	6	8
A	125 FLG	9	10	13	15-3/4	17-3/4	21-3/8
A	250 FLG	9-5/8	10-3/4	13-5/8	16-5/8	18-5/8	22-3/8
B	125 FLG	7-1/16	7-15/16	9-7/8	9-1/4	9-7/8	14-1/2
B	250 FLG	7-3/8	8-5/16	10-3/16	10-3/8	11	14-1/2
C	50 Actuator	17-7/8	18-3/4	N/A	N/A	N/A	N/A
C	84 Actuator	21-1/4	22-1/8	23-1/8	22	22-3/4	N/A
C	115 Actuator	33-1/2	34-1/8	35-1/8	34	34-3/4	36-3/4
D	50 Actuator	10-1/2	10-1/2	N/A	N/A	N/A	N/A
D	84 Actuator	13-7/8	13-7/8	13-7/8	13-7/8	13-7/8	N/A
D	115 Actuator	16-3/4	16-3/4	16-3/4	16-3/4	16-3/4	16-3/4
R*	50 w/42	7-1/2	7-1/2	N/A	N/A	N/A	N/A
R*	84 w/42	9	9	9	9	9	N/A
R*	84 w/760P	8-1/8	8-1/8	8-1/8	8-1/8	8-1/8	N/A
R*	115 w/760P	11-1/4	11-1/4	11-1/4	11-1/4	11-1/4	11-1/4



Allow 4-3/4 inch clearance above actuator for removal / service (50 & 84).
Allow 6-1/8 inch clearance above actuator for removal / service (115).
*Center line of Actuator to Outside Point of Positioner

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

Valve					50 Actuator 20 PSIG Air Supply 50		
					ALL RANGES		
Cv	Size (IN)	Flng	Trim	Valve Code	8-13 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID Class III
69	2.5	125	BRZ	VA3010CA	D001	D003	45
69	2.5	125	S/S	VA3010CC	D001	D003	45
69	2.5	250	BRZ	VA3010DA	D001	D003	45
69	2.5	250	S/S	VA3010DC	D001	D003	45
86	3	125	BRZ	VA3011CA	D001	D003	29
86	3	125	S/S	VA3011CC	D001	D003	29
86	3	250	BRZ	VA3011DA	D001	D003	29
86	3	250	S/S	VA3011DC	D001	D003	29

50 ACTUATOR SPECIFICATIONS:

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

Shut-off values are based on 0 PSIG air pressure to the actuator when the upper port is closed and 20 PSIG air pressure to the actuator when the lower port is closed.

Valve					84 Actuator 20 PSIG Air Supply 84					
					3-15 PSIG SPRING RANGE		ALL OTHER RANGES			
Cv	Size (IN)	Flng	Trim	Valve Code	Actuator Code	SHUT OFF PSID Class III	9-15 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class III
69	2.5	125	BRZ	VA3010CA	D004	25	D008	D012	D016	59
69	2.5	125	S/S	VA3010CC	D004	25	D008	D012	D016	59
69	2.5	250	BRZ	VA3010DA	D004	25	D008	D012	D016	59
69	2.5	250	S/S	VA3010DC	D004	25	D008	D012	D016	59
86	3	125	BRZ	VA3011CA	D004	15	D008	D012	D016	39
86	3	125	S/S	VA3011CC	D004	15	D008	D012	D016	39
86	3	250	BRZ	VA3011DA	D004	15	D008	D012	D016	39
86	3	250	S/S	VA3011DC	D004	15	D008	D012	D016	39
156	4	125	BRZ	VA3013CA	D005	6	D009	D013	D017	19
156	4	125	S/S	VA3013CC	D005	6	D009	D013	D017	19
156	4	250	BRZ	VA3013DA	D005	6	D009	D013	D017	19
156	4	250	S/S	VA3013DC	D005	6	D009	D013	D017	19
270	5	125	BRZ	VA3014CA	-	0	D009	D013	D017	11
270	5	125	S/S	VA3014CC	-	0	D009	D013	D017	11
270	5	250	BRZ	VA3014DA	-	0	D009	D013	D017	11
270	5	250	S/S	VA3014DC	-	0	D009	D013	D017	11
347	6	125	BRZ	VA3015CA	-	0	D009	D013	D017	6
347	6	125	S/S	VA3015CC	-	0	D009	D013	D017	6
347	6	250	BRZ	VA3015DA	-	0	D009	D013	D017	6
347	6	250	S/S	VA3015DC	-	0	D009	D013	D017	6

Valve					115 Actuator 20 PSIG Air Supply 115				
					3-15 PSIG SPRING RANGE		ALL OTHER RANGES		
Cv	Size (IN)	Flng	Trim	Valve Code	Actuator Code	SHUT OFF PSID Class III	9-15 PSIG Spring Range Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class III
69	2.5	125	S/S	VA3010CD	D018	44	D024	D030	91
69	2.5	250	S/S	VA3010DD	D018	44	D024	D030	91
86	3	125	S/S	VA3011CD	D018	28	D024	D030	61
86	3	250	S/S	VA3011DD	D018	28	D024	D030	61
156	4	125	S/S	VA3013CD	D019	13	D025	D031	32
156	4	250	S/S	VA3013DD	D019	13	D025	D031	32
270	5	125	S/S	VA3014CD	D019	7	D025	D031	19
270	5	250	S/S	VA3014DD	D019	7	D025	D031	19
347	6	125	S/S	VA3015CD	-	0	D025	D031	12
347	6	250	S/S	VA3015DD	-	0	D025	D031	12
590	8	125	S/S	VA3017FD	-	0	D026	D032	4
590	8	250	S/S	VA3017GD	-	0	D026	D032	4

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

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

WEIGHTS

ITEM	WEIGHT (LBS)	
VALVE SIZE	125 FLG	250 FLG
2-1/2"	64	73
3"	83	94
4"	139	157
5"	157	211
6"	202	283
8"	CF	CF
ACTUATOR	LBS	
50	13	
84	48-1/2	
115	84	
POSITIONER	LBS	
42	1	
760P	8	

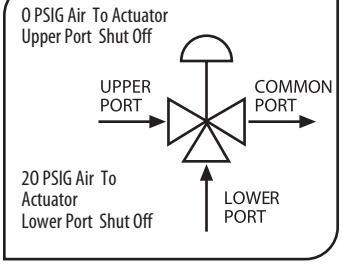
Actual shipping weights may vary.
CF = Consult Factory

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

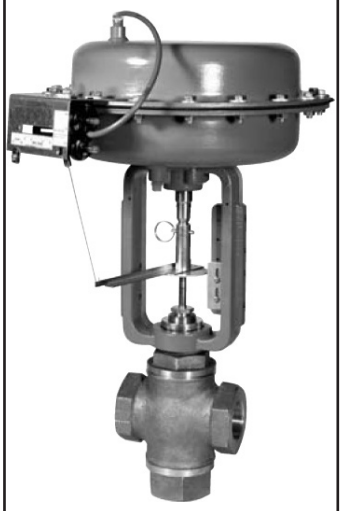
115 ACTUATOR SPECIFICATIONS:

Effective Area: 115 Square Inches
Construction: Acrylic Enamel Coated Aluminum Yoke and Steel Diaphragm Chamber with Buna-N Diaphragm
Mounting: Vertical Above Valve



PNEUMATICALLY ACTUATED
3-WAY DIVERTING BRONZE 1" - 2"

VA3208AA-D003



VA3208AA-D012

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.
4) The difference between the upper port and the lower port pressure must not exceed 50 PSID.

▸ APPLICATION:

Control of Water; Water and Glycol Solutions to 60%. Valves divert one flow into two directions (Diverting). Seat Leakage ANSI Class II.

▸ VALVE CONSTRUCTION:

Body:	ANSI B16.15 Bronze 250lb. Threaded (NPT)
Trim:	Linear, Bronze
Stem:	316 Stainless Steel
Bonnet:	Brass / Bronze
Packing:	EPDM Lip Packing (+20 to 350ºF) Standard (EPDM is **not** suitable for use with oils, hydrocarbons, or acids.) PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
O-Ring:	EPR +20 to 300ºF
Agency Approvals:	CRN # CSA - OC18997 (Bronze Body Only)

▸ TRIM LIMITS (Flowing Differential Pressure):

Bronze Trim:	Liquids to 40 PSID

▸ CONTROL ACTION:

Increasing Signal Closes Lower Port/Opens Upper Port; Operating Range may differ from Signal Range, Use a Positioner to Match Ranges

▸ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

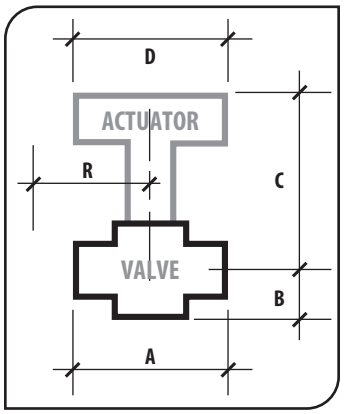
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▸ Dimensions (IN):

Component		Dimension by Valve Size (IN)		
Variable		1	1-1/2	2
A	250THD	4-7/8	5-3/4	6-1/2
B	250THD	3-15/32	3-13/16	4
C	50 Actuator	15-1/2	16-1/8	16-3/8
C	84 Actuator	18-7/8	19-1/2	19-3/4
D	50 Actuator	10-1/2	10-1/2	10-1/2
D	84 Actuator	13-7/8	13-7/8	13-7/8
R*	50 w/42	7-1/2	7-1/2	7-1/2
R*	84 w/42	9	9	9
R*	84 w/760P	8-1/8	8-1/8	8-1/8



Allow 4-1/8 inch clearance above actuator for removal / service.

*Center line of Actuator to Outside point of Positioner

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

Valve					50 Actuator 20 PSIG Air Supply 50		
					ALL RANGES		
Cv	Size (IN)	Thrd NPT	Trim	Valve Code	8-13 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID Class II
12	1	250	BRZ	VA3206AA	D001	D003	100
22	1.5	250	BRZ	VA3208AA	D001	D003	100
40	2	250	BRZ	VA3209AA	D001	D003	100

Shut-off values are based on 0 PSIG air pressure to the actuator when the upper port is closed and 20 PSIG air pressure to the actuator when the lower port is closed.

50 ACTUATOR SPECIFICATIONS:

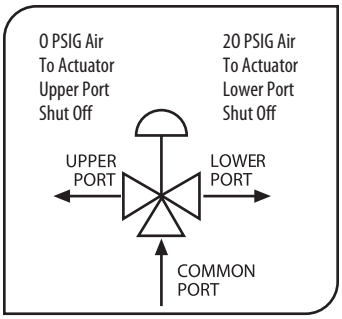
Effective Area: 50 Square Inches
Construction: Aluminum Yoke and Diaphragm Chamber with Neoprene Diaphragm.
Mounting: Vertical Above Valve

Valve					84 Actuator 20 PSIG Air Supply 84				
					ALL RANGES				
Cv	Size (IN)	Thrd NPT	Trim	Valve Code	9-15 PSIG Spring Range Actuator Code	3-15 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class II
12	1	250	BRZ	VA3206AA	D008	D004	D012	D016	125
22	1.5	250	BRZ	VA3208AA	D008	D004	D012	D016	125
40	2	250	BRZ	VA3209AA	D008	D004	D012	D016	125

Shut-off values are based on 0 PSIG air pressure to the actuator when the upper port is closed and 20 PSIG air pressure to the actuator when the lower port is closed.

84 ACTUATOR SPECIFICATIONS:

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



ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

TEMP.	250 THD (RATINGS ARE PSIG)
+20 to 150° F	400
300° F	335

WEIGHTS

ITEM	WEIGHT
VALVE SIZE	LBS
1"	9
1-1/2"	16-1/2
2"	21
ACTUATOR	LBS
50	13
84	48-1/2
POSITIONER	LBS
42	1
760P	8

Actual shipping weights may vary.

3-WAY DIVERTING IRON 2-1/2" - 8"

VA3210CA-D003

VA3213CA-D016

VA3217CB-D031

▶ APPLICATION:

Control of Water; Water and Glycol Solutions to 60%. Valves divert one flow into two directions (Diverting). Seat Leakage ANSI Class II.

▶ 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 350ºF) Standard (EPDM is **not** suitable for use with oils, hydrocarbons, or acids.) PTFE V-Ring, (+60 to 350ºF) Optional, must be specified on order
O-Ring:	EPR +20 to 300ºF (2-1/2 thru 5 in); +20 to 150ºF (6 & 8 in)
Agency Approval:	CRN # CSA - OC20496 (Excludes 250# Type 22/32)

▶ TRIM LIMITS (Flowing Differential Pressure):

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

▶ CONTROL ACTION:

Increasing Signal Closes Lower Port/Opens Upper Port; Operating Range may differ from Signal Range, Use a Positioner to Match Ranges

▶ POSITIONER SPECIFICATIONS:

42 POSITIONER SPECIFICATIONS:

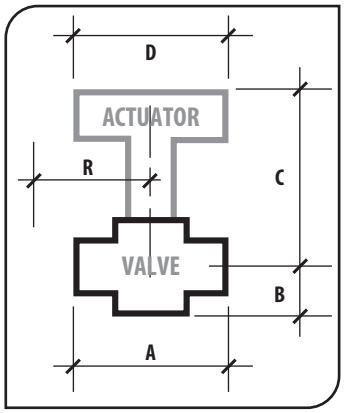
Control Signal:	3-15 PSIG (Factory Setting) Adjustable/Non-Reversible
Air Supply/Consumption:	20 PSIG/Approx 0.012 SCFM

760P POSITIONER SPECIFICATIONS:

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

▶ Dimensions (IN):

Component		Dimension by Valve Size (IN)					
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	7-1/16	7-15/16	9-7/8	10-1/2	11-1/16	11-13/16
B	250 FLG	7-3/8	8-5/16	10-3/16	10-15/16	11-1/2	12-5/16
C	50 Actuator	17-7/8	18-3/4	19-1/2	N/A	N/A	N/A
C	84 Actuator	21-1/4	22-1/8	22-7/8	23-1/2	24-1/8	N/A
C	115 Actuator	N/A	N/A	N/A	N/A	37-1/4	37-5/8
D	50 Actuator	10-1/2	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	N/A	N/A
D	115 Actuator	N/A	N/A	N/A	N/A	16-3/4	16-3/4
R*	50 w/42	7-1/2	7-1/2	7-1/2	N/A	N/A	N/A
R*	84 w/42	9	9	9	9	N/A	N/A
R*	84 w/760P	8-1/8	8-1/8	8-1/8	8-1/8	N/A	N/A
R*	115 w/760P	N/A	N/A	N/A	N/A	11-1/4	11-1/4



Allow 4-5/8 inch clearance above actuator for removal / service (50 & 84). Allow 5-1/8 inch clearance above actuator for removal / service (115).
*Center line of Actuator to Outside Point of Positioner

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.
4) The difference between the upper port and the lower port pressure must not exceed 50 PSID.

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

Valve					50 Actuator 20 PSIG Air Supply 50		
					ALL RANGES		
Cv	Size (IN)	Flng	Trim	Valve Code	8-13 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	SHUT OFF PSID Class II
68	2.5	125	BRZ	VA3210CA	D001	D003	100
68	2.5	125	S/S	VA3210CC	D001	D003	100
68	2.5	250	BRZ	VA3210DA	D001	D003	100
68	2.5	250	S/S	VA3210DC	D001	D003	100
85	3	125	BRZ	VA3211CA	D001	D003	100
85	3	125	S/S	VA3211CC	D001	D003	100
85	3	250	BRZ	VA3211DA	D001	D003	100
85	3	250	S/S	VA3211DC	D001	D003	100
160	4	125	BRZ	VA3213CA	D001	D003	100
160	4	125	S/S	VA3213CC	D001	D003	100
160	4	250	BRZ	VA3213DA	D001	D003	100
160	4	250	S/S	VA3213DC	D001	D003	100

50 ACTUATOR SPECIFICATIONS:

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

Shut-off values are based on 0 PSIG air pressure to the actuator when the upper port is closed and 20 PSIG air pressure to the actuator when the lower port is closed.

Valve					84 Actuator 20 PSIG Air Supply 84			
					ALL RANGES			
Cv	Size (IN)	Flng	Trim	Valve Code	9-15 PSIG Spring Range Actuator Code	w/42 Positioner Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class II
68	2.5	125	BRZ	VA3210CA	D008	D012	D016	125
68	2.5	125	S/S	VA3210CC	D008	D012	D016	125
68	2.5	250	BRZ	VA3210DA	D008	D012	D016	125
68	2.5	250	S/S	VA3210DC	D008	D012	D016	125
85	3	125	BRZ	VA3211CA	D008	D012	D016	125
85	3	125	S/S	VA3211CC	D008	D012	D016	125
85	3	250	BRZ	VA3211DA	D008	D012	D016	125
85	3	250	S/S	VA3211DC	D008	D012	D016	125
160	4	125	BRZ	VA3213CA	D008	D012	D016	125
160	4	125	S/S	VA3213CC	D008	D012	D016	125
160	4	250	BRZ	VA3213DA	D008	D012	D016	125
160	4	250	S/S	VA3213DC	D008	D012	D016	125
195	5	125	BRZ	VA3214CA	D009	D013	D017	125
195	5	125	S/S	VA3214CC	D009	D013	D017	125
195	5	250	BRZ	VA3214DA	D009	D013	D017	125
195	5	250	S/S	VA3214DC	D009	D013	D017	125

Valve					115 Actuator 20 PSIG Air Supply 115		
					ALL RANGES		
Cv	Size (IN)	Flng	Trim	Valve Code	9-15 PSIG Spring Range Actuator Code	w/760 Positioner Actuator Code	SHUT OFF PSID Class II
270	6	125	BRZ	VA3215CB	D025	D031	125
270	6	125	S/S	VA3215CD	D025	D031	125
270	6	250	BRZ	VA3215DB	D025	D031	125
270	6	250	S/S	VA3215DD	D025	D031	125
425	8	125	BRZ	VA3217CB	D025	D031	125

Shut-off values are based on 0 PSIG air pressure to the actuator when the upper port is closed and 20 PSIG air pressure to the actuator when the lower port is closed.

ACTUATED ASSEMBLY BODY PRESSURE TEMPERATURE RATINGS

TEMP.	125 FLG (PSIG)	250 FLG (PSIG)
+20 to 150° F	175	400
300° F	140	310

WEIGHTS

ITEM	WEIGHT (LBS)	
VALVE SIZE	125 FLG	250 FLG
2-1/2"	59	73
3"	78	94
4"	138	164
5"	152	213
6"	203	284
8"	316	407
ACTUATOR	LBS	
50	13	
84	48-1/2	
115	84	
POSITIONER	LBS	
42	1	
760P	8	

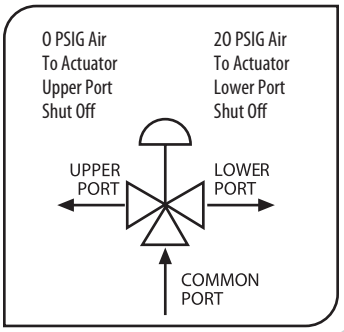
Actual shipping weights may vary.

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

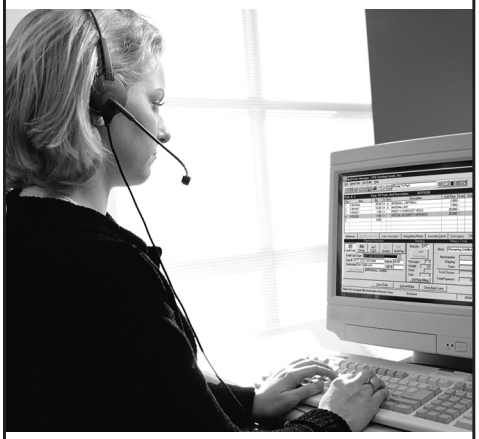
115 ACTUATOR SPECIFICATIONS:

Effective Area: 115 Square Inches
Construction: Acrylic Enamel Coated Aluminum Yoke and Steel Diaphragm Chamber with Buna-N Diaphragm
Mounting: Vertical Above Valve



TERMS & CONDITIONS OF SALE

Customer Service
Technical Support



(800) 922-0085
or (610) 317-0800

Monday - Friday:
8:30 AM - 5:00 PM EST

WARREN CONTROLS INC. (Hereinafter called "Seller") agrees to supply the equipment covered herein on the following terms and conditions. Additional terms and conditions not covered herein will be accepted only upon mutual agreement in writing.

ORDERS: Contracts and orders are subject to acceptance by the home office of the Seller.

FREIGHT TERMS: All Prices are FOB factory (Bethlehem, PA).

MINIMUM ORDER REQUIREMENT: All orders must have a minimum net value of $400.

PRICES AND DISCOUNTS: All prices and discounts are in accordance with the established price and discount schedules of the Seller, and are subject to change without notice.

PRICE LIST: The price list is not an offer to sell to any person who possesses it, nor to anyone else, the goods listed herein at the prices shown. All prices herein set forth supersede all prior price lists and are subject to change without notice. Warren Controls Incorporated may also, from time to time, discontinue, without notice, the sale of any of the products herein.

TAXES: The amount of any present or future sales, use, occupancy, excise, or other tax, federal, state or local, which the Seller now, or hereafter shall be legally obligated to pay, either on its own behalf or on the behalf of the purchaser or otherwise, with respect to the material covered by this order or contract, shall (unless the prices contained herein are stated expressly to include such tax) be added to such prices and paid by the purchaser. Purchaser agrees to report and pay any such tax directly on any non-exempt transaction, when Seller's invoices do not indicate such a charge.

REMITTANCES: All invoices shall be due and payable in United States currency, free of exchange, collection, or any other charges, net 30 days, or as otherwise agreed upon and set forth in writing by Seller. Past due invoices are subject to a carrying charge of 1% per month. The purchaser, if so requested, agrees to furnish Seller with all information, including financial statements, necessary to make proper credit appraisal. Refusal to supply such information may cause a quotation to be withdrawn. Quotations for extended periods are subject to change with reasonable notice.

LIABILITY: The buyer shall remain primarily liable for the purchase price and the Seller shall not be obliged to accept any term or condition of payment which will shift liability to a third person not a party to the contract of sale, whether or not such third person is the United States Government, its agents or instrumentalities.

RUSH ORDERS: Expediting is something that we at Warren Controls Incorporated endeavor to accommodate whenever possible but must be requested and promised on a case-by-case basis. Premium freight is not assumed and must be specified on the purchase order.

DISCONTINUANCES OF DELIVERIES: Should the purchaser's financial responsibility be or become unsatisfactory to the Seller, cash payment or satisfactory security at any time may be demanded by the Seller, and if not furnished to the Seller's satisfaction, the Seller may at its option discontinue deliveries and charge the purchaser for the sale value of any completed or partly completed articles manufactured pursuant to the order or contract.

PARTIAL SHIPMENTS: Seller reserves the right to make partial shipments from time to time and render invoices therefore, which shall be due and payable as provided in paragraph entitled "Remittances".

DELAYS: The Seller shall not be liable for any loss, damage, or delay occasioned by any causes beyond the Seller's control, including, but not limited to governmental actions or orders, embargoes, strikes, differences with workers, fires, floods, accidents, or transportation delays. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY CONSEQUENTIAL OR SPECIAL DAMAGES.

WEIGHTS AND DIMENSIONS: Shipping weights and dimensions given in catalogs and drawings are as close to actual as practicable but are not guaranteed. No claims will be allowed because of any discrepancy between actual weights or dimensions of material shipped and listed data in catalog.

SHIPPING AND PACKING: All material is carefully packed for shipment and Seller will not be responsible for loss, delay or breakage after having received "in good order" receipts from the transportation company. All claims for breakage, loss, delay and damage should be made to carriers, but Seller will render all possible assistance in securing satisfactory adjustment of such claims. Goods will be shipped by the method and via carrier Seller believes dependable, unless the buyer designates the carrier. Goods held at factory beyond delivery date for convenience of buyer will be invoiced on date of completion and terms of payment will apply as from invoice date. Such goods will be subject to charges for warehousing and other expenses incident to such delay.

REJECTION OF SHIPMENT: If the purchaser is unable or unwilling to accept any shipment, the purchaser shall be liable to the Seller, in addition to any other rights for which the Seller may be entitled, for freight, express, storage, extra cost of handling, and other expenses incurred thereby.

CANCELLATION: All orders are firm and are not subject to cancellation or change in specifications, shipping schedules or other conditions without Seller's written consent, which will be given only upon agreement to compensate for loss caused by such cancellation or changes.

SHORTAGE CLAIMS: Claims for shortage or incorrect filling of orders must be made within 60 days from date of delivery.

WARRANTY: The Seller warrants that the equipment manufactured by it and covered by this order is free from defects in material and workmanship and, without charge, product found to be defective in material or workmanship will be repaired, or at Seller's option replaced F.O.B. original point of shipment, if written notice of failure is received by Seller within one (1) year after date of shipment (unless specifically noted elsewhere), provided said product has been properly installed, operated in accordance with the Seller's instructions, and provided such defects are not due to abuse or decomposition by chemical or galvanic action. THIS EXPRESS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, GUARANTEES, OR REPRESENTATIONS, EXPRESS OR IMPLIED. THERE IS NO IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. Seller assumes no responsibility for repairs made on the Seller's equipment unless done by the Seller's authorized personnel, or by written authority from the Seller. The Seller makes no guarantee with respect to material not manufactured by it. Seller shall not be liable for consequential damage in case of any failure to meet the conditions of any guarantee or shipping schedule, nor will claims for labor, loss of profits, repairs or other expenses incidental to replacement be allowed. The Seller in connection with the manufacture and sale of its equipment makes no other representation, guarantee or warranty, expressed or implied.

PURCHASER'S REMEDIES: The purchaser's remedies with respect to equipment manufactured by Seller covered by this order or contract and found to be defective shall be limited exclusively to the right of repair or replacement of such defective equipment. IN NO EVENT SHALL SELLER BE LIABLE FOR CLAIMS (BASED UPON BREACH OF CONTRACT, BREACH OF EXPRESS OR IMPLIED WARRANTY, OR NEGLIGENCE) FOR ANY OTHER DAMAGES, WHETHER DIRECT, IMMEDIATE, FORESEEABLE, CONSEQUENTIAL, OR SPECIAL OR FOR ANY EXPENSES INCURRED BY REASON OF THE USE OR MISUSE, SALE OR FABRICATION OF PRODUCTS WHICH DO OR DO NOT CONFORM TO THE TERMS AND CONDITIONS OF THIS ORDER OR CONTRACT.

CONSEQUENTIAL DAMAGES: IN NO EVENT SHALL BUYER BE ENTITLED TO RECOVER ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING BUT NOT LIMITED TO ANY COMMERCIAL LOSS OR INJURY TO ANY PERSON, WHETHER OR NOT SAID DAMAGES ARE CAUSED, IN WHOLE OR IN PART, BY ANY DELAY, FAILURE, NONPERFORMANCE OR NEGLIGENCE OF SELLER, OR THE BREACH BY SELLER OF ANY OF THE TERMS OF SALE CONTAINED HEREIN OR ANY OTHER TERM OR CONDITION MADE A PART OF THE CONTRACT BETWEEN SELLER AND BUYER.

RETURNS: Return material shipments shall be prepaid and clearly marked with a Sales Shipping Authorization (SSA) number issued by the Seller. Items returned for repair shall include detailed information about the application/installation, and the nature of the trouble experienced. Credit may be issued by the Seller for unused, current product, returned in saleable condition, after deduction of a restocking fee, typically 25% of the purchase price. Warranty coverage, or credit consideration, will be determined only after receipt and inspection of the material by the Seller.

BOND PREMIUMS: In the event the Seller shall be required as a condition of the manufacture and sale of equipment to furnish a performance bond, the buyer shall pay as a part of the purchase price of said equipment all bond premiums and expense in connection therewith.

DESIGNS: All designs and specifications shown in Seller's catalog are subject to change without notice.

PATENT INFRINGEMENT: The Seller will hold the purchaser and user harmless from infringement of any United States patent covering equipment of its manufacture. This, of necessity, is limited to the equipment per se and cannot be extended to applications of such equipment by others. The purchaser and user shall advise the Seller immediately in the event any claims of infringement are brought to their attention.

COMPLIANCE WITH LAWS: Seller has complied with all applicable Federal, State and local laws and regulations in connection with the manufacture and sale of all equipment. No responsibility or liability will be taken for import duties, laws, regulations or taxes imposed by any foreign country.

GOVERNING LAW: This contract shall be governed by, construed, and enforced in accordance with the laws of the State of Pennsylvania.

ERRORS: All clerical errors are subject to correction.

NOTES

WARREN CONTROLS INC.

A VETERAN OWNED, PRIVATELY HELD, SMALL BUSINESS

Warren Controls was founded in the early 1950's and was known as Warren Automatic Controls. Warren is the name of the county in New Jersey where the business was founded. The first products were regulators designed for the HVAC and marine industries. The company was purchased and renamed Warren Controls Corporation in 1971, largely specializing and growing in a variety of flow control products for commercial, industrial, and military applications.

In 2003, Warren Controls Inc., as we are known today now resides in a modern 60,000 Sq. Ft. manufacturing facility in Bethlehem, PA. Our product lines continue to grow through extensive product development and target marketing. Today, Warren offers four broad product lines for Building Automation Control Valves, Industrial Process Valves up to ANSI Class 300, Mechanical Level Controls for deaerators and boilers, and Military / Marine Valves to MIL specifications.

We serve a variety of end use and OEM customers and manage an extensive independent representative and distribution sales network. Find out who the local Sales Agent is in your area. Or, feel free to contact the company directly to answer your questions and serve your needs.

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WARREN CONTROLS

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DEPENDABLE, RUGGED, PRECISION CONTROL VALVES AND ACCESSORIES