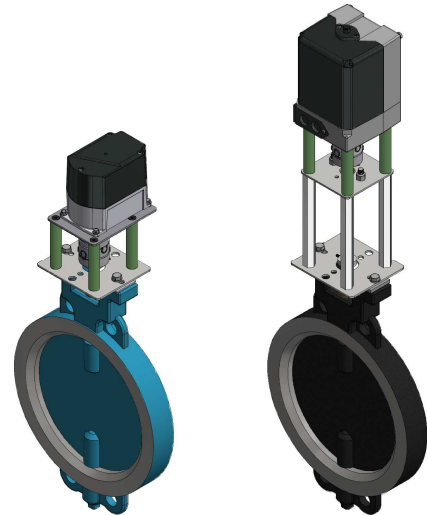


VA Series

VA...WBV Valve Actuator Assemblies with WBV... Butterfly Valves



Description

VA...WBV valve actuator assemblies include a Siemens SQM... actuator reliably mounted to a WBV... butterfly valve.

Features

- Shaft coupling provides a positive connection without actuator or valve shaft damage
- High temperature VA...HT versions for hot air or FGR up to 900°F
- Rigid and robust design
- WBV... valve sizes from 2" to 24"
- Includes Siemens SQM48, SQM5, or SQM40 actuator

Application

VA...WBV valve actuator assemblies mount an SQM48, SQM5, or SQM40 actuator to a WBV... butterfly valve. The WBV... valve and SQM... actuator are rigidly mounted with precisely engineered brackets and couplings to ensure minimal heat conduction and proper shaft alignment. WBV... Valve Technical Instructions (CVLV-5000) provide sizing and additional valve information.

Product Part Numbers

The following chart provides VA...WBV assembly part number identification including an SQM40 or SQM48 actuator. Technical instructions for SQM40 (n7817) and SQM48 (n7814) actuators are available at www.scccombustion.com.

	VA	48.6	- 10	WBV	-HT	-N4
Valve Actuator Assembly						
Actuator						
40.21 = SQM40.215R11 (25 sec, 4-20 mA/135 Ohm/2-10 VDC, high/low fire feedback)						
40.24 = SQM40.245A21 (25 sec, 4-20 mA/135 Ohm/2-10 VDC)						
40.25 = SQM40.255... (25 sec, 4-20 mA, independent aux switch)						
40.26 = SQM40.265... (25 sec, 3-position, high/low fire feedback)						
40.27 = SQM40.275R10 (25 sec, high/low basic version)						
40.28 = SQM40.285R11 (25 sec, 3-position, 3 independent aux switches)						
40.35 = SQM40.357R11 (54sec, 4-20 mA, independent aux switch)						
48.4 = SQM48.497B9 (stepper, for use with LMV5...)						
48.6 = SQM48.697B9 (stepper, for use with LMV5...)						
Voltage						
Blank = 120 Vac SQM40 or standard SQM48						
(220) = 220 Vac (not available for SQM48 actuators)						
Valve Size						
2 = 2" butterfly valve						
2.5 = 2-1/2" butterfly valve						
3 = 3" butterfly valve						
4 = 4" butterfly valve						
6 = 6" butterfly valve						
8 = 8" butterfly valve						
10 = 10" butterfly valve						
12 = 12" butterfly valve						
14 = 14" butterfly valve						
16 = 16" butterfly valve						
18 = 18" butterfly valve						
20 = 20" butterfly valve						
22 = 22" butterfly valve						
24 = 24" butterfly valve						
WBV Valve						
Max. Temperature Rating						
Blank = 450°F						
-HT = 900°F						
Actuator NEMA Rating						
Blank = NEMA 12 SQM48 or NEMA 4 SQM40 (standard)						
-N4 = NEMA 4 SQM48						

Product Part Numbers (continued)

The following chart provides VA...WBV assembly part number identification including an SQM5 actuator. All VA... assemblies with an SQM5... actuator include the AGA55.5 NEMA 4 kit. Technical instructions for SQM5 (155-517) actuators are available at www.scccombustion.com.

	VA	50	.	4	Z	7	-	12	WBV
Valve Actuator Assembly									
Actuator									
50									
53									
56									
Torque / Timing									
2									
3									
4									
5									
6									
Control Board									
Blank									
A									
H									
K									
Z									
Potentiometer									
Blank									
3									
7									
Voltage									
Blank									
(220)									
(24)									
Valve Size									
2									
2.5									
3									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
WBV Valve									
Max. Temperature Rating									
Blank									
-HT									

Product Part Numbers (continued)

Due to the torque required to rotate a WBV... butterfly valve, not all possible SQM... actuator and WBV... valve combinations are possible. SQM... actuator and WBV... valve compatibility is tabulated below.

Table 1: SQM... Actuator and WBV... Valve Compatibility

Actuator	2-6" WBV... Valves	8-14" WBV... Valves	16-24" WBV... Valves
SQM40.2...	✓	✗	✗
SQM40.357R11	✓	✓	✗
SQM48.497B9	✓	✓	✗
SQM48.697B9	✓	✓	✓
SQM50.2...	✓	✗	✗
SQM50.3...	✓	✓	✗
SQM50.4...	✓	✓	✗
SQM53.4...	✓	✓	✗
SQM56.5...	✓	✓	✓
SQM56.6...	✓	✓	✓

Installation

- WBV... valves can accommodate flow in either direction. The VA...WBV assembly may be mounted in either direction for actuator wiring convenience.
- Any mounting position is allowed, though it is preferred to mount the assembly with the valve shaft horizontal when possible
- Valve position indicator shows valve position
- The limit switches on all assemblies using an SQM40... or SQM5... actuator are set to achieve a 0-90° stroke

Dimensions

VA40...WBV Valve Actuator Assemblies

Dimensions in inches [mm]

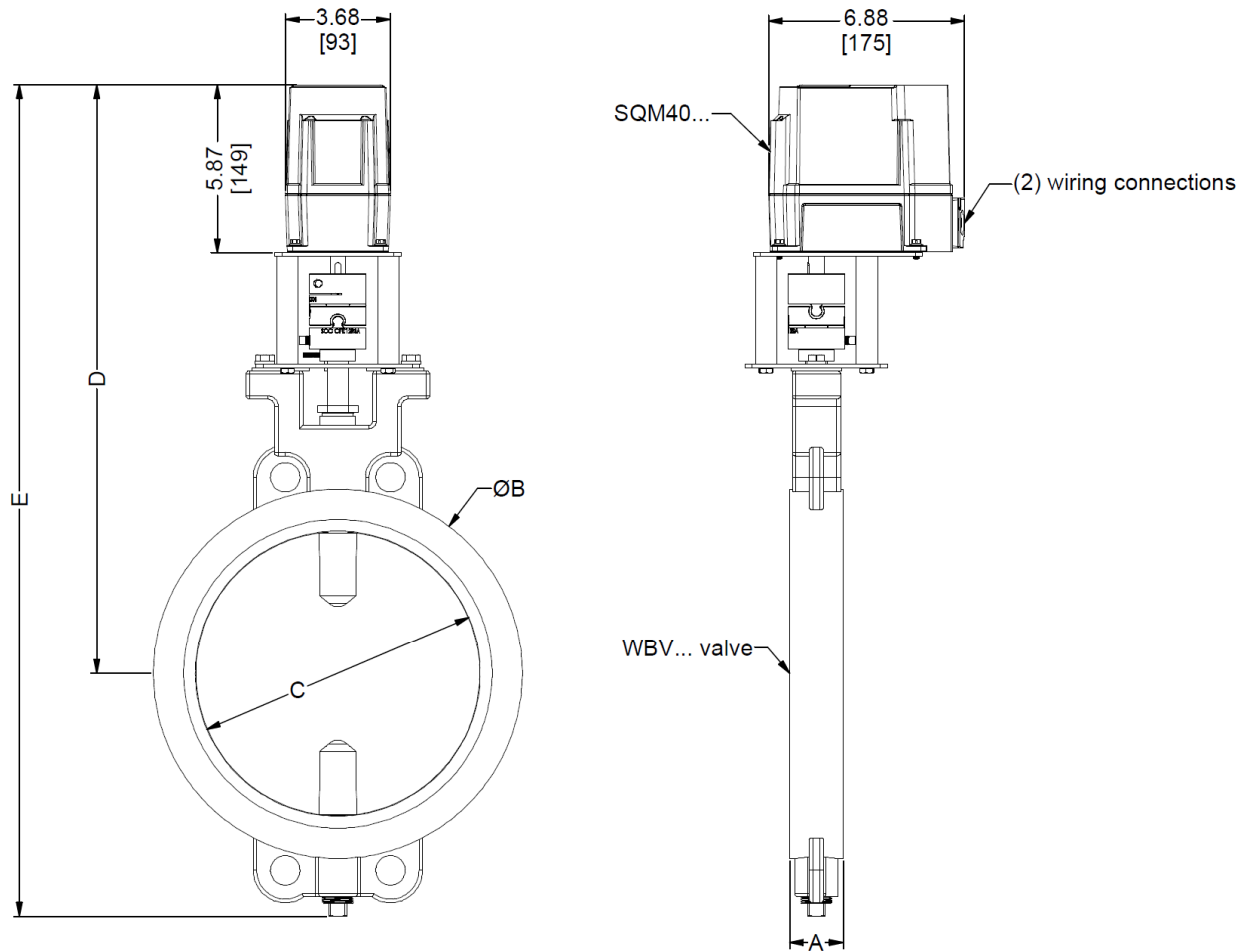


Table 2: VA40...WBV Dimensions¹

Valve Size	A	B	C	D	E
2"	1.50 [38]	3.88 [98]	2.00 [51]	15.41 [391]	18.16 [461]
2-1/2"	1.50 [38]	4.63 [117]	2.50 [64]	15.66 [398]	18.66 [474]
3"	1.50 [38]	5.13 [130]	3.00 [76]	15.91 [404]	19.04 [484]
4"	1.50 [38]	6.38 [162]	4.00 [102]	16.41 [417]	20.66 [525]
6"	1.50 [38]	8.50 [216]	6.00 [152]	17.41 [442]	22.79 [579]
8"	1.88 [48]	10.75 [273]	8.00 [203]	19.66 [499]	26.16 [664]
10"	1.88 [48]	13.00 [330]	10.00 [254]	20.66 [525]	28.66 [728]
12"	1.88 [48]	15.25 [387]	12.00 [305]	21.66 [550]	31.16 [791]
14"	1.88 [48]	16.38 [416]	13.13 [333]	22.16 [563]	32.66 [830]

¹ Mating flange bolt circles can be found in WBV... Valve Technical Instructions CVLV-5000.

Dimensions (continued)

VA40...WBV-HT Valve Actuator Assemblies

Dimensions in inches [mm]

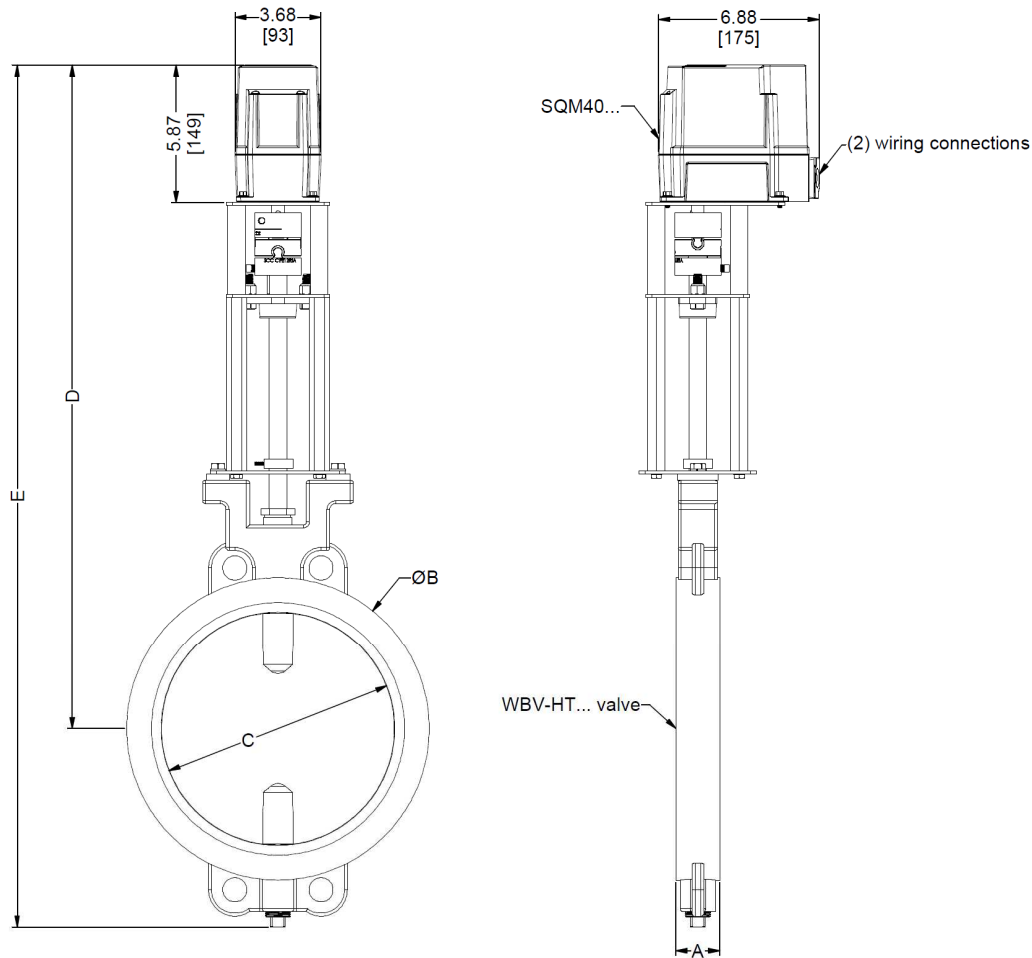


Table 3: VA40...WBV-HT Dimensions¹

Valve Size	A	B	C	D	E
2"	1.50 [38]	3.88 [98]	2.00 [51]	23.14 [588]	27.02 [686]
2-1/2"	1.50 [38]	4.63 [117]	2.50 [64]	23.39 [594]	27.52 [699]
3"	1.50 [38]	5.13 [130]	3.00 [76]	23.64 [600]	28.02 [712]
4"	1.50 [38]	6.38 [162]	4.00 [102]	24.14 [613]	29.02 [737]
6"	1.50 [38]	8.50 [216]	6.00 [152]	25.14 [639]	31.02 [788]
8"	1.88 [48]	10.75 [273]	8.00 [203]	27.39 [696]	35.14 [893]
10"	1.88 [48]	13.00 [330]	10.00 [254]	28.39 [721]	37.14 [943]
12"	1.88 [48]	15.25 [387]	12.00 [305]	29.39 [747]	39.14 [994]
14"	1.88 [48]	16.38 [416]	13.13 [333]	29.89 [759]	40.39 [1026]

¹ Mating flange bolt circles can be found in WBV... Valve Technical Instructions CVLV-5000.

Dimensions (continued)

VA48...WBV Valve Actuator Assemblies

Dimensions in inches [mm]

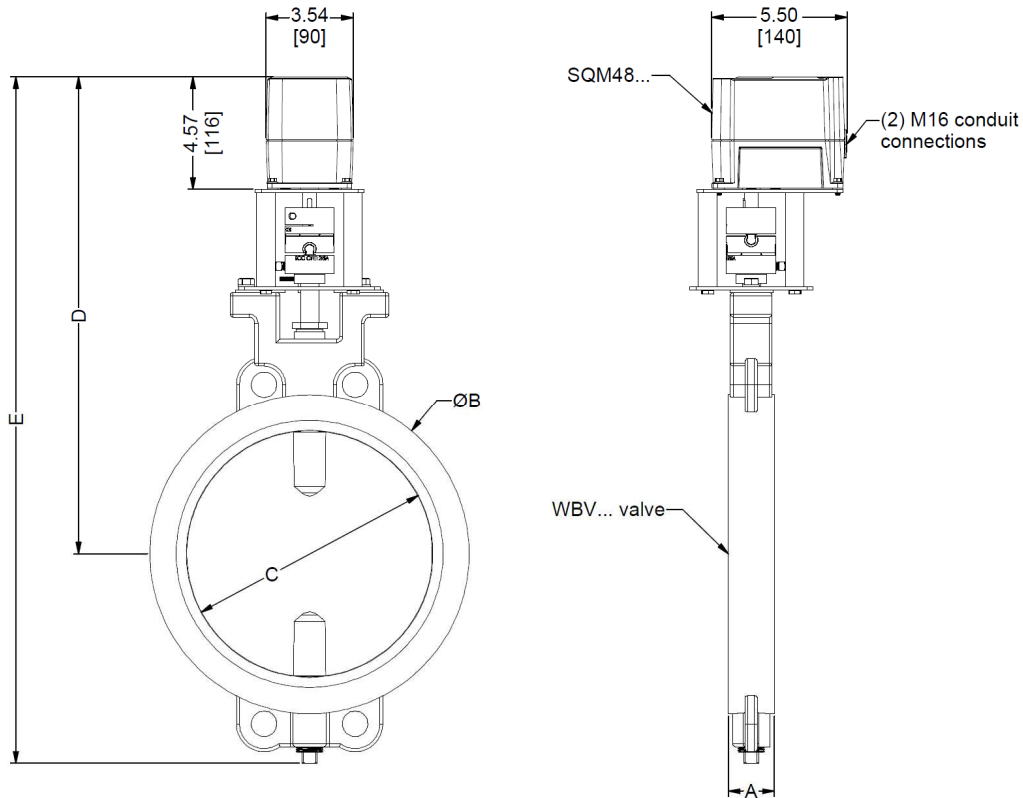


Table 4: VA48...WBV Dimensions¹

Valve Size	A	B	C	D	E
2"	1.50 [38]	3.88 [98]	2.00 [51]	14.11 [358]	16.86 [428]
2-1/2"	1.50 [38]	4.63 [117]	2.50 [64]	14.36 [365]	17.36 [441]
3"	1.50 [38]	5.13 [130]	3.00 [76]	14.61 [371]	17.74 [451]
4"	1.50 [38]	6.38 [162]	4.00 [102]	15.11 [384]	19.36 [492]
6"	1.50 [38]	8.50 [216]	6.00 [152]	16.11 [409]	21.49 [546]
8"	1.88 [48]	10.75 [273]	8.00 [203]	18.36 [466]	24.86 [631]
10"	1.88 [48]	13.00 [330]	10.00 [254]	19.36 [492]	27.36 [695]
12"	1.88 [48]	15.25 [387]	12.00 [305]	20.36 [517]	29.86 [758]
14"	1.88 [48]	16.38 [416]	13.13 [333]	20.86 [530]	31.36 [797]
16"	2.38 [60]	18.25 [464]	15.13 [384]	23.23 [590]	35.98 [914]
18"	2.38 [60]	20.75 [527]	17.13 [435]	24.23 [615]	38.11 [968]
20"	2.38 [60]	22.75 [578]	19.13 [486]	25.23 [641]	40.11 [1019]
22"	2.38 [60]	25.00 [635]	21.13 [537]	26.23 [666]	42.73 [1085]
24"	2.38 [60]	27.00 [686]	23.13 [587]	27.23 [692]	44.48 [1130]

¹ Mating flange bolt circles can be found in WBV... Valve Technical Instructions CVLV-5000.

Dimensions (continued)

VA48...WBV-HT Valve Actuator Assemblies

Dimensions in inches [mm]

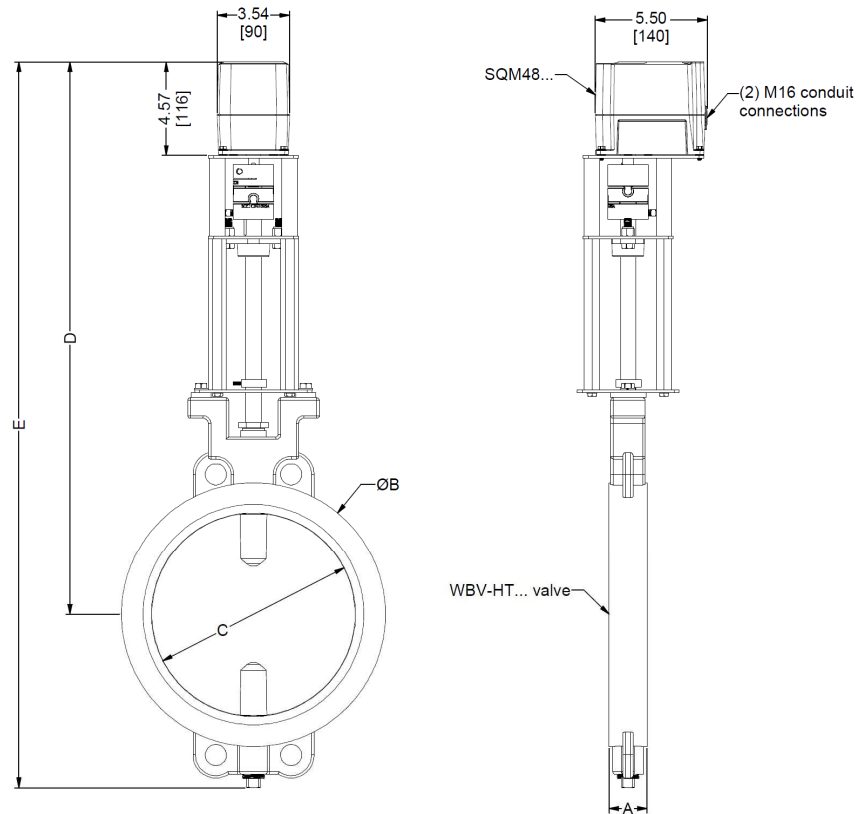


Table 5: VA48...WBV-HT Dimensions¹

Valve Size	A	B	C	D	E
2"	1.50 [38]	3.88 [98]	2.00 [51]	21.84 [555]	25.72 [653]
2-1/2"	1.50 [38]	4.63 [117]	2.50 [64]	22.09 [561]	26.22 [666]
3"	1.50 [38]	5.13 [130]	3.00 [76]	22.34 [567]	26.72 [679]
4"	1.50 [38]	6.38 [162]	4.00 [102]	22.84 [580]	27.72 [704]
6"	1.50 [38]	8.50 [216]	6.00 [152]	23.84 [606]	29.72 [755]
8"	1.88 [48]	10.75 [273]	8.00 [203]	26.09 [663]	33.84 [860]
10"	1.88 [48]	13.00 [330]	10.00 [254]	27.09 [688]	35.84 [910]
12"	1.88 [48]	15.25 [387]	12.00 [305]	28.09 [713]	37.84 [961]
14"	1.88 [48]	16.38 [416]	13.13 [333]	28.59 [726]	39.09 [993]
16"	2.38 [60]	18.25 [464]	15.13 [384]	30.96 [786]	43.71 [1110]
18"	2.38 [60]	20.75 [527]	17.13 [435]	31.96 [812]	45.84 [1164]
20"	2.38 [60]	22.75 [578]	19.13 [486]	32.96 [837]	47.84 [1215]
22"	2.38 [60]	25.00 [635]	21.13 [537]	33.96 [863]	50.46 [1282]
24"	2.38 [60]	27.00 [686]	23.13 [587]	34.96 [888]	52.21 [1326]

¹ Mating flange bolt circles can be found in WBV... Valve Technical Instructions CVLV-5000.

Dimensions (continued)

VA5x...WBV Valve Actuator Assemblies

Dimensions in inches [mm]

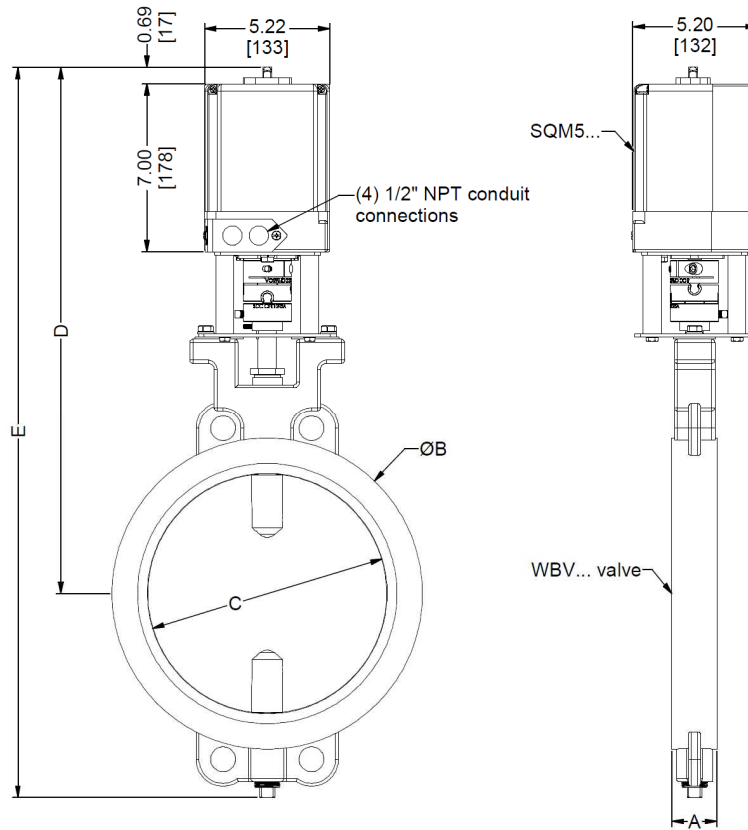


Table 6: VA5x...WBV Dimensions¹

Valve Size	A	B	C	D	E
2"	1.50 [38]	3.88 [98]	2.00 [51]	17.23 [438]	19.98 [507]
2-1/2"	1.50 [38]	4.63 [117]	2.50 [64]	17.48 [444]	20.48 [520]
3"	1.50 [38]	5.13 [130]	3.00 [76]	17.73 [450]	20.86 [530]
4"	1.50 [38]	6.38 [162]	4.00 [102]	18.23 [463]	22.48 [571]
6"	1.50 [38]	8.50 [216]	6.00 [152]	19.23 [488]	24.61 [625]
8"	1.88 [48]	10.75 [273]	8.00 [203]	21.48 [546]	27.98 [711]
10"	1.88 [48]	13.00 [330]	10.00 [254]	22.48 [571]	30.48 [774]
12"	1.88 [48]	15.25 [387]	12.00 [305]	23.48 [596]	32.98 [838]
14"	1.88 [48]	16.38 [416]	13.13 [333]	23.98 [609]	34.48 [876]
16"	2.38 [60]	18.25 [464]	15.13 [384]	26.35 [669]	39.10 [993]
18"	2.38 [60]	20.75 [527]	17.13 [435]	27.35 [695]	41.23 [1047]
20"	2.38 [60]	22.75 [578]	19.13 [486]	28.35 [720]	43.23 [1098]
22"	2.38 [60]	25.00 [635]	21.13 [537]	29.35 [745]	45.85 [1165]
24"	2.38 [60]	27.00 [686]	23.13 [587]	30.35 [771]	47.60 [1209]

¹ Mating flange bolt circles can be found in WBV... Valve Technical Instructions CVLV-5000.

Dimensions (continued)

VA5x...WBV-HT Valve Actuator Assemblies

Dimensions in inches [mm]

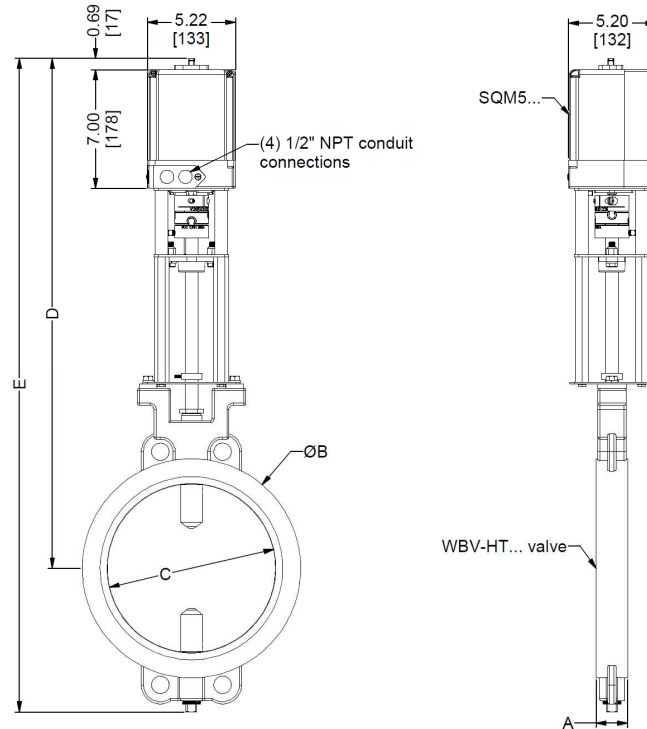


Table 7: VA5x...WBV-HT Dimensions¹

Valve Size	A	B	C	D	E
2"	1.50 [38]	3.88 [98]	2.00 [51]	24.96 [634]	28.84 [733]
2-1/2"	1.50 [38]	4.63 [117]	2.50 [64]	25.21 [640]	29.34 [745]
3"	1.50 [38]	5.13 [130]	3.00 [76]	25.46 [647]	29.84 [758]
4"	1.50 [38]	6.38 [162]	4.00 [102]	25.96 [659]	30.84 [783]
6"	1.50 [38]	8.50 [216]	6.00 [152]	26.96 [685]	32.84 [834]
8"	1.88 [48]	10.75 [273]	8.00 [203]	29.21 [742]	36.96 [939]
10"	1.88 [48]	13.00 [330]	10.00 [254]	30.21 [767]	38.96 [990]
12"	1.88 [48]	15.25 [387]	12.00 [305]	31.21 [793]	40.96 [1040]
14"	1.88 [48]	16.38 [416]	13.13 [333]	31.71 [805]	42.21 [1072]
16"	2.38 [60]	18.25 [464]	15.13 [384]	34.08 [866]	46.83 [1189]
18"	2.38 [60]	20.75 [527]	17.13 [435]	35.08 [891]	48.96 [1244]
20"	2.38 [60]	22.75 [578]	19.13 [486]	36.08 [916]	50.96 [1294]
22"	2.38 [60]	25.00 [635]	21.13 [537]	37.08 [942]	53.58 [1361]
24"	2.38 [60]	27.00 [686]	23.13 [587]	38.08 [967]	55.33 [1405]

¹ Mating flange bolt circles can be found in WBV... Valve Technical Instructions CVLV-5000.

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