

# Cage type Double Seated Control Valves (Rating : ANSI 600 or Less)

## Model VDC

### OVERVIEW

Model VDC control valve has a smaller actuator available for higher differential pressure as well as faster response in throttling action because of excellence in pressure balancing effect.

The plug has less vibration-generating shape and all parts are housed in the cage, thus realizing anti-vibration and wearing-out resistant features.

Valve body can be disassembled with ease.

Inspection of trim and replacement of parts can be carried out rapidly.

Capacity change by reducing port is performed by only replacing the cage with the plug unchanged.

### SPECIFICATIONS

#### Body

##### Type

Straight-through, cast globe valve

##### Nominal Size

1½, 2, 2½, 3, 4, 5, 6, 8, 10, 12 inches

##### Pressure rating

- JIS 10K, 16K, 20K, 30K and 40K
- ANSI 150, 300 and 600

##### End connection

- Flanged end ;

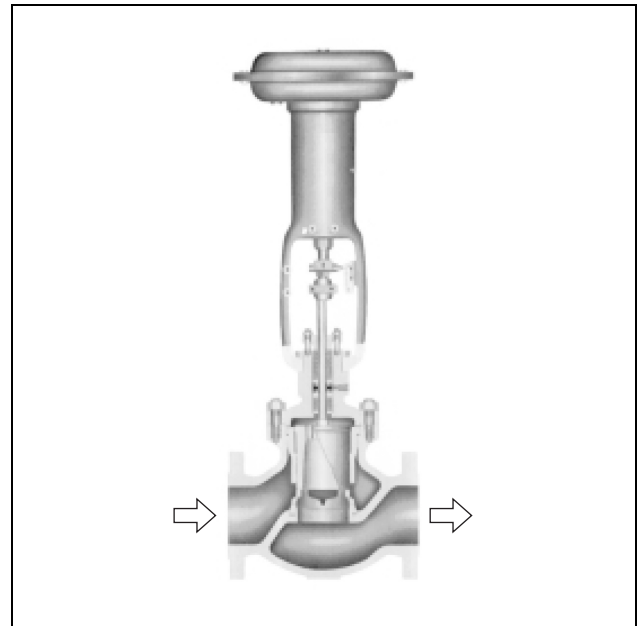
Connection type	Pressure rating	Applicable standard
FF	JIS10K	JIS B2212-1972
	ANSI Class 125	ANSI B16.5-1968
	JPI Class 125	JPI-7S-15-1993
RF	JIS10K	JIS B2212-1972
	JIS16K	JIS B2213-1967
	JIS20K	JIS B2214-1967
	JIS30K	JIS B2215-1967
	JIS40K	JIS B2216-1967
	ANSI Class 150, 300, 600	ANSI B16.5-1968
RJ	JPI Class 150, 300, 600	JPI-7S-15-1993
	ANSI Class 150, 300, 600	ANSI B16.5-1968
	JPI Class 150, 300, 600	JPI-7S-15-1993

#### Material

For body/trim material combinations and operating temperature ranges, refer to Table 1.

#### Bonnet

- Plain bonnet (0 to 200°C)
- Radiator finned bonnet (over 200°C)



Extension bonnet (0°C or less)

Bellows seal bonnet (-30 to +300°C, 981 kPa {10 kgf/cm<sup>2</sup>} max.)

#### Gland type

Bolted gland

#### Packing / Grease

- Grease not provided  
When PTFE packing is used.
- Grease provided  
When graphite packing is used.

Note) PTFE: Polytetrafluoroethylene

#### Drain plug

No (optionally available)

#### Trim

##### Valve plug

Pressure balanced type

##### Cage

- Metal seat  
Equal percentage (%V)  
Linear (LV)
- Soft seat  
Equal percentage (%T)  
Linear (LT)

Note)1) For cage design (integral cage or split cage), refer to Table 1.

2) For operating temperature and maximum differential pressure ranges of soft seat type, refer to Figure 1.

**Material**

For body/trim material combinations and operating temperature ranges, refer to Table 1.

**Actuator****Type**

- Single acting diaphragm actuator (Type VA)
- Spring type piston actuator (Type PSA6R)

**Action**

Direct or reverse action

**Diaphragm**

Type VA: Cloth-embedded chloroprene rubber

**Spring range**

- Type VA :
  - 20 to 98 kPa {0.2 to 1.0 kgf/cm<sup>2</sup>}
  - 40 to 120 kPa {0.4 to 1.2 kgf/cm<sup>2</sup>}
  - 40 to 200 kPa {0.4 to 2.0 kgf/cm<sup>2</sup>}
  - 80 to 240 kPa {0.8 to 2.4 kgf/cm<sup>2</sup>}
- Type PSA6R :
  - 200 to 340 kPa {2.0 to 3.5 kgf/cm<sup>2</sup>}
  - 200 to 390 kPa {2.0 to 4.0 kgf/cm<sup>2</sup>}

**Air connection**

- Type VA:
  - Rc 1/4 internal thread
  - (For VA4 and VA5, Rc1/4 adapter is provided on Rc 1/2 internal thread. Rc3/8 adapter is also possible.)
- Type PSA6R :
  - Rc 1/2 internal thread
  - ( Providing Rc 1/4 or Rc3/8 adapter is possible.)

**Ambient temperature**

-30 to 70 ?

**Valve action**

Air-to-close (Direct action actuator is combined)

Air-to-open (Reverse action actuator is combined)

**Optional accessories**

Positioner, pressure regulator with filter, hand wheel, limit switch, solenoid valve, motion transmitter, booster relay, lock-up valve, and others.

**Additional specification**

Steam jacket

(Operating pressure 981 kPa {10.0 kgf/cm<sup>2</sup>} or less)

**Performance****Rated Cv value**

Refer to Table 2.

**Inherent rangeability**

- 30:1
- Optional 75:1 for full port size

**Allowable differential pressure**

Refer to Table 3 to Table 6.

**Leakage specification**

IEC 60534-4:2006 or JIS B2005-4:2008

**Metal seat**

Standard.....ClassII: Leakage less than 0.5% of maximum valve capacity.

Optional.....ClassIII: Leakage less than 0.1% of maximum valve capacity.

**Soft seat**

Class VI: Leakage less than 0.00001% of maximum valve capacity.

**Hysteresis error**

Without positioner: Within 3% F.S. (Within 9% F.S.)

With positioner: Within 1% F.S. (Within 2% F.S.)

**Linearity**

Without positioner: Within ±5% F.S. (Within ±9% F.S.)

With positioner: Within ±1% F.S. (Within ±2% F.S.)

*Note) Parenthesized figures are applicable to type PSA6R.*

**Dimensions**

Refer to Table 7 and Table 8.

**Weight**

Refer to Table 9.

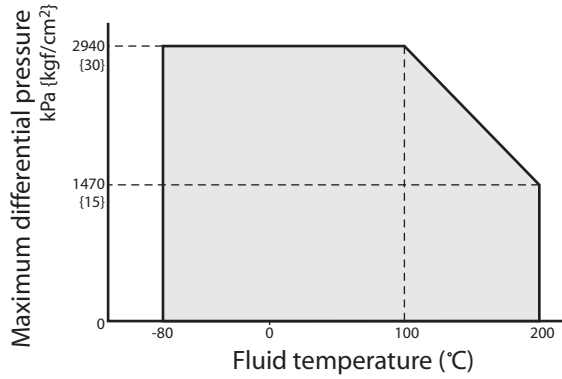
**Finish**

Blue ( Munsell 10B5/10) or silver, or other specified colors.

**Table 1 Body/trim material combinations and operating temperature ranges (°C)**

Body material	Plug material Cage material	Plug type Cage type	Operating temperature range (°C)
Carbon steel (SCPH2)	Stainless steel (SCS24)	Cage	-5 to +425
Low alloy steel (SCPH21)	Stainless steel (SCS24)		
	SCS14 atomloy furnished	Split cage	426 to +500
	SCS14 stellite coating		426 to +550
Low alloy steel (SCPH61)	Stainless steel (SCS24)	Cage	-5 to +425
	SCS14 atomloy furnished	Split cage	+426 to +500
	SCS14 stellite coating		+426 to +600
Stainless steel (SCS13)	Stainless steel (SCS14)*	Cage	-195 to +200
		Split cage	+201 to +300
	SCS14 atomloy fur- nished	Cage	-195 to +200
		Split cage	+201 to +500
	SCS14 stellite coating	Cage	-195 to +200
		Split cage	+201 to +600
Stainless steel (SCS14)	Stainless steel (SCS14)*	Cage	-195 to +200
		Split cage	+201 to +300
	SCS14 stellite coating	Cage	-195 to +200
		Split cage	+201 to +600

Note) \* Requires hardening treatment according to operating differential pressures. Refer to Document No. IB2-8000-0100.



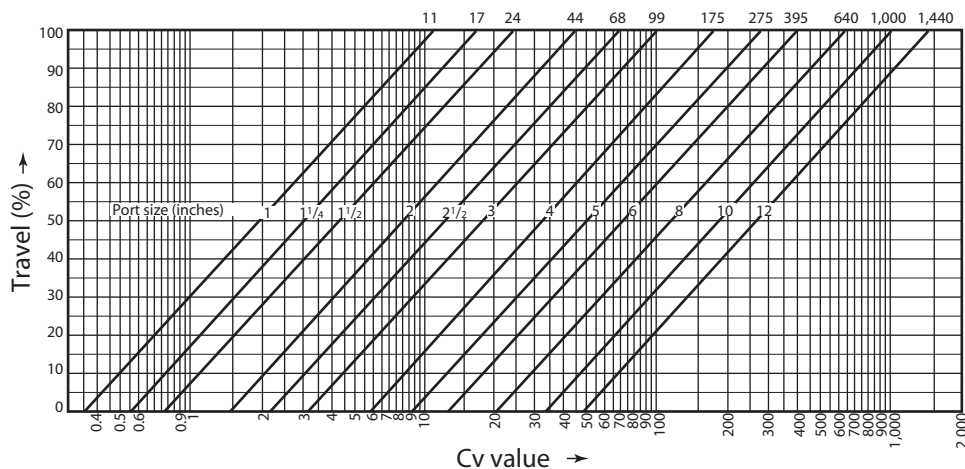
**Figure 1 Temperature and maximum differential pressure range of soft-seat type**

**Table 2 Cv value and travel**

Valve size (inches)		1½		2		2½		3		4		5		6		8		10		12											
Port size (inches)		1	1¼	1½	1¾	1½	2	1½	2	2½	2	2½	3	2½	3	4	3	4	5	4	5	6	5	6	8	6	8	10	8	10	12
Rated Cv value		11	17	24	17	24	44	24	44	68	44	68	99	68	99	175	99	175	275	175	275	395	275	395	640	395	640	1000	640	1000	1440
Plug type & Characteristic	Equal percentage cage, Linear cage & Soft seat	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	△	△	△	△	△	△	△	△
	Travel (mm)	25		25		37.5		37.5		37.5		50		50		75		100		100											
	Equal percentage split cage & Linear split cage	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Travel (mm)	25		25		37.5		37.5		37.5		50		50		75		100		100											

Note) △...Available for only soft seat valve.

**Equal percentage**



**Figure 2 Flow characteristics**

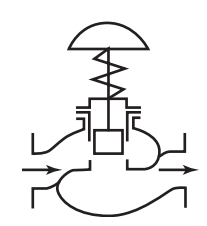
(Idealistic flow characteristics is indicated in this graph.)

**Allowable differential pressure**

**Metal seat (%V, LV) : PTFE packing**

Valves with type VA actuator

**Table 3 Air-to-close**

Actuator model No.	Supply pressure kPa {kgf/cm <sup>2</sup> }	Spring range kPa {kgf/cm <sup>2</sup> }	Positioner	Differential pressure kPa {kgf/cm <sup>2</sup> }										
				Valve size (inches)										
				1½	2	2½	3	4	5	6	8	10	12	
VA1D	120 {1.2}	20 to 98 {0.2 to 98}	✕	790 {8.1}	630 {6.4}	---	---							
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓	1960 {20.0}	1570 {16.0}	---	---							
	250 {2.6}	20 to 98 {0.2 to 1.0}	✓	3920 {40.0}	3920 {40.0}	---	---							
VA2D	120 {1.2}	20 to 98 {0.2 to 1.0}	✕	1080 {11.0}	900 {9.2}	720 {7.3}	620 {6.3}	460 {4.7}						
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓	2840 {29.0}	2260 {23.0}	1750 {18.0}	1570 {16.0}	1180 {12.0}						
	250 {2.6}	20 to 98 {0.2 to 1.0}	✓	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}						
VA3D	120 {1.2}	20 to 98 {0.2 to 1.0}	✕	1860 {19.0}	1470 {15.0}	1180 {12.0}	981 {10.0}	770 {7.9}	630 {6.4}	520 {5.3}				
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓	3920 {40.0}	3820 {39.0}	3040 {31.0}	2650 {26.0}	1960 {20.0}	1570 {16.0}	1270 {13.0}				
	250 {2.6}	20 to 98 {0.2 to 1.0}	✓	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}				
VA4D	120 {1.2}	20 to 98 {0.2 to 1.0}	✕			1670 {17.0}	1370 {14.0}	1080 {11.0}	870 {8.9}	720 {7.4}	550 {5.6}			
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓			3920 {40.0}	3630 {37.0}	2740 {28.0}	2160 {22.0}	1860 {19.0}	1370 {14.0}			
	250 {2.6}	20 to 98 {0.2 to 1.0}	✓			3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}			
VA5D	120 {1.2}	20 to 98 {0.2 to 1.0}	✕						1180 {12.0}	981 {10.0}	740 {7.6}	600 {6.1}	500 {5.1}	
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓						3040 {31.0}	2550 {26.0}	1860 {19.0}	1470 {15.0}	1270 {13.0}	
	250 {2.6}	20 to 98 {0.2 to 1.0}	✓						3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	

Note) 1) "□" shows a model with standard actuator.

2) ✓ : Positioner is necessary. ✕ : Positioner is not necessary.

Table 4 Air-to-open

Actuator model no.	Supply pressure kPa {kgf/cm <sup>2</sup> }	Spring range kPa {kgf/cm <sup>2</sup> }	Positioner	Differential pressure kPa {kgf/cm <sup>2</sup> }										
				Valve size (inches)										
				1½	2	2½	3	4	5	6	8	10	12	
VA1R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓	790 {8.1}	630 {6.4}									
		40 to 120 {0.4 to 1.2} *	△	2350 {24.0}	1860 {19.0}									
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓	3920 {40.0}	3920 {40.0}									
VA2R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓	1080 {11.0}	900 {9.2}	720 {7.3}	620 {6.3}	460 {4.7}						
		40 to 120 {0.4 to 1.2} *	△	3430 {35.0}	2650 {27.0}	2160 {22.0}	1760 {18.0}	1370 {14.0}						
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3240 {33.0}						
VA3R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓	1860 {19.0}	1470 {15.0}	1180 {12.0}	981 {10.0}	770 {7.9}	630 {6.4}	520 {5.3}				
		40 to 120 {0.4 to 1.2} *	△	3920 {40.0}	3920 {40.0}	3530 {36.0}	3040 {31.0}	2260 {23.0}	1860 {19.0}	1570 {16.0}				
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}				
VA4R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓			1670 {17.0}	1370 {14.0}	1080 {11.0}	870 {8.9}	720 {7.4}	550 {5.6}			
		40 to 120 {0.4 to 1.2} *	△			3920 {40.0}	3920 {40.0}	3240 {33.0}	2550 {26.0}	2160 {22.0}	1570 {16.0}			
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓			3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3820 {39.0}			
VA5R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓						1180 {12.0}	981 {10.0}	740 {7.6}	600 {6.1}	500 {5.1}	
		40 to 120 {0.4 to 1.2} *	△						3530 {36.0}	2940 {30.0}	2260 {23.0}	1760 {18.0}	1470 {15.0}	
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓						3920 {40.0}	3920 {40.0}	3920 {40.0}	3920 {40.0}	3530 {36.0}	
PSA6R	400 {4.0}	200 to 340 {2.0 to (3.5)}	✓								12110 {123.0}			
	500 {5.0}	200 to 390 {2.0 to 4.0}	✓									9760 {100.0}	8140 {83.0}	

Note) 1) \* The limit of differential pressure for 40 to 200 kPa {0.4 to 2.0 kgf/cm<sup>2</sup>} spring range are the same as for 40 to 120 kPa {0.4 to 1.2 kgf/cm<sup>2</sup>} spring.

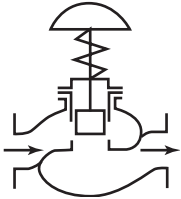
2) "□" shows a model with standard actuator.

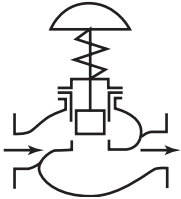
3) ✓ : Positioner is necessary. ✕ : Positioner is not necessary. △ : Positioner is preferable.

Soft seat (%T, LT)

Valves with VA actuator

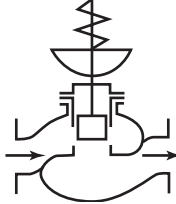
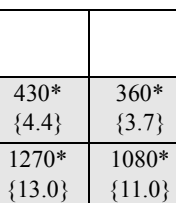
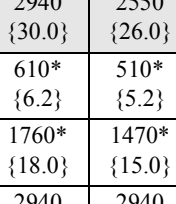
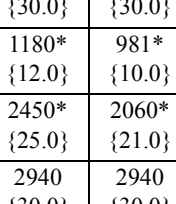
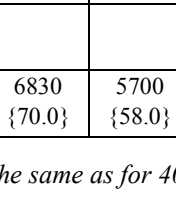
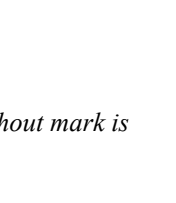
Table 5 Air-to-close

Actuator model No.	Supply pressure kPa {kgf/cm <sup>2</sup> }	Spring range kPa {kgf/cm <sup>2</sup> }	Positioner	Differential pressure kPa {kgf/cm <sup>2</sup> }							
				Valve size (inches)							
				1½	2	2½	3	4	5	6	
VA1D	120 {1.2}	20 to 98 {0.2 to 98}	✕	560* {5.7}	440* {4.5}						
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓	1370* {14.0}	1080* {11.0}						
	260 {2.7}	20 to 98 {0.2 to 1.0}	✓	2940 {30.0}	2940 {30.0}						
VA2D	120 {1.2}	20 to 98 {0.2 to 1.0}	✕	800* {8.2}	630* {6.4}	500* {5.1}	470* {4.4}	320* {3.3}			
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓	1960* {20.0}	1570* {16.0}	1270* {13.0}	1080* {11.0}	830* {8.5}			
	250 {2.6}	20 to 98 {0.2 to 1.0}	✓	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}			
VA3D	120 {1.2}	20 to 98 {0.2 to 1.0}	✕	1270* {13.0}	981* {10.0}	830* {8.5}	720* {7.3}	540* {5.5}	430* {4.4}	360* {3.7}	
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓	2940 {30.0}	2650 {27.0}	2060 {21.0}	1760 {18.0}	1370 {14.0}	1080 {11.0}	930 {9.5}	
	250 {2.6}	20 to 98 {0.2 to 1.0}	✓	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	
VA4D	120 {1.2}	20 to 98 {0.2 to 1.0}	✕			1080* {11.0}	981* {10.0}	760* {7.7}	610* {6.2}	510* {5.2}	
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓			2940* {30.0}	2550* {26.0}	1860* {19.0}	1470* {15.0}	1270* {13.0}	
	250 {2.6}	20 to 98 {0.2 to 1.0}	✓			2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	
VA5D	120 {1.2}	20 to 98 {0.2 to 1.0}	✕						830* {8.5}	700* {7.1}	
	140 {1.4}	20 to 98 {0.2 to 1.0}	✓						2060* {21.0}	1760* {18.0}	
	250 {2.6}	20 to 98 {0.2 to 1.0}	✓						2940 {30.0}	2940 {30.0}	



- Note) 1) "□" shows a model with standard actuator.  
 2) ✓ : Positioner is necessary. ✕ : Positioner is not necessary.  
 3) Valve seat leakage at full closure marked with "\*" is 0.01% or less (Class IV), and that without mark is 0.00001% or less (Class VI).

Table 6 Air-to-open

Actuator model no.	Supply pressure kPa {kgf/cm <sup>2</sup> }	Spring range kPa {kgf/cm <sup>2</sup> }	positioner	Differential pressure kPa {kgf/cm <sup>2</sup> }							
				Valve size (inches)							
				1½	2	2½	3	4	5	6	
VA1R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓	560* {5.7}	440* {4.5}						
		40 to 120 {0.4 to 1.2} *	△	1670* {17.0}	1270* {13.0}						
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓	2940 {30.0}	2940 {30.0}						
VA2R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓	800* {8.2}	630* {6.4}	500* {5.1}	430* {4.4}	320* {3.3}			
		40 to 120 {0.4 to 1.2}	△	2350* {24.0}	1860* {19.0}	1470* {15.0}	1270* {13.0}	981* {10.0}			
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2260 {23.1}			
VA3R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓	1270* {13.0}	981* {10.0}	830* {8.5}	730* {7.4}	540* {5.5}	430* {4.4}	360* {3.7}	
		40 to 120 {0.4 to 1.2}	△	2940* {30.0}	2940* {30.0}	2450* {25.0}	2060* {21.0}	1570* {16.0}	1270* {13.0}	1080* {11.0}	
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2550 {26.0}	
VA4R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓			1080* {11.0}	981* {10.0}	760* {7.7}	610* {6.2}	510* {5.2}	
		40 to 120 {0.4 to 1.2}	△			2940* {30.0}	2940* {30.0}	2260* {23.0}	1760* {18.0}	1470* {15.0}	
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓			2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	2940 {30.0}	
VA5R	140 {1.4}	20 to 98 {0.2 to 1.0}	✕ or ✓						1180* {12.0}	981* {10.0}	
		40 to 120 {0.4 to 1.2}	△						2450* {25.0}	2060* {21.0}	
	270 {2.8}	80 to 240 {0.8 to 2.4}	✓						2940 {30.0}	2940 {30.0}	
PSA6R	400 {4.0}	200 to 340 {2.0 to 3.5}	✓					8480 {86.0}			
	500 {5.0}	200 to 390 {2.0 to 4.0}	✓						6830 {70.0}	5700 {58.0}	

Note) 1) \* The limit of differential pressure for 40 to 200 kPa {0.4 to 2.0 kgf/cm<sup>2</sup>} spring range are the same as for 40 to 120 kPa {0.4 to 1.2 kgf/cm<sup>2</sup>} spring.

2) "□" shows a model with standard actuator.

3) ✓ : Positioner is necessary. ✕ : Positioner is not necessary. △ : Positioner is preferable.

4) Valve seat leakage at full closure marked with "\*" is 0.01% or less (Class IV), and that without mark is 0.00001% or less (Class VI).

**DIMENSIONS**

Table 7 Face to face dimensions

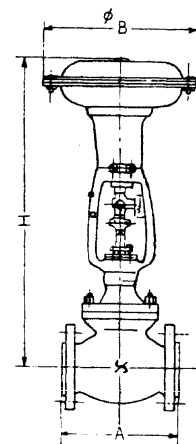
[Unit: mm]

Valve size (inches)	A						
	JIS 10K FF, RF ANSI 150 RF	JIS 16K, 20K RF ANSI 300 RF	JIS 30K RF	JIS 40K RF ANSI 600 RF	ANSI 150 RJ	ANSI 300 RJ	ANSI 600RJ
1½	222	235	235	251	235	248	251
2	254	267	267	286	267	283	289
2½	276	292	292	311	289	308	314
3	298	318	318	337	311	333	340
4	352	368	368	394	365	384	397
5	403	425	425	457	416	441	460
6	451	473	473	508	464	489	511
8	543	568	568	610	556	584	613
10	673	708	708	752	686	724	756
12	737	775	775	819	749	791	822

Table 8 External dimensions

[Unit: mm]

Valve size (inches)	Actuator model no.	H (mm)						φ B (mm)
		Direct action (air-to-close)			Reverse action (air-to-open)			
		P	RF	BS	P	RF	BS	
1½	VA1D, R	695	845	855	695	845	855	300
	VA2D, R	835	985		835	985		350
	VA3D, R	1000	1150		1000	1150		450
2	VA1D, R	705	855	865	705	855	865	300
	VA2D, R	845	995		845	995		350
	VA3D, R	1010	1160		1010	1160		450
2½	VA2D, R	885	1035	1105	885	1035	1105	350
	VA3D, R	1055	1205		1055	1205		450
	VA4D, R	1220	1370		1335	1485		520
3	VA2D, R	900	1050	1120	900	1050	1120	350
	VA3D, R	1060	1210		1060	1210		450
	VA4D, R	1225	1375		1340	1490		520
4	VA2D, R	915	1070	1135	915	1070	1135	350
	VA3D, R	1080	1230		1080	1230		450
	VA4D, R	1245	1395		1360	1510		520
5	VA3D, R	1115	1265	1405	1115	1265	1405	450
	VA4D, R	1280	1430		1395	1545		520
	VA5D, R	1330	1480		1440	1590		620
6	VA3D, R	1145	1295	1430	1145	1295	1430	450
	VA4D, R	1310	1460		1425	1575		520
	VA5D, R	1360	1510		1470	1620		620
8	VA4D, R	1430	1575		1540	1690		520
	VA5D, R	1525	1670		1630	1780		620
	PSA6R	1675	1820		1780	1930		476
10	VA5D, R	1760	2015		1890	2145		620
	PSA6R	1685	1940		1815	2070		476
12	VA5D, R	1810	2020		1940	2150		620
	PSA6R	1735	1945		1865	2075		476



Note) P: Plain bonnet, RF: Radiator finned bonnet, BS: Bellows seal bonnet

**Weight**

Table 9 Weight

[Unit: kg]

Valve size (inches)	Actuator model no.	Weight (kg)								
		JIS 10K, ANSI 150			JIS 16K, 20K, 30K, ANSI 300			JIS 40K, ANSI 600		
		P	RF	BS	P	RF	BS	P	RF	BS
1½	VA1D, R	37	39	40	42	44	45	50	52	53
	VA2D, R	48	50		53	55		61	63	
	VA3D, R	76	78		81	83		89	91	
2	VA1D, R	43	45	46	43	46	47	60	63	64
	VA2D, R	54	56		54	57		71	74	
	VA3D, R	82	84		82	85		91	102	
2½	VA2D, R	60	63	65	65	68	70	110	113	115
	VA3D, R	88	91		93	96		138	141	
	VA4D	163	166		168	171		213	216	
	VA4R	188	191		193	196		238	241	
3	VA2D, R	80	85	87	83	88	90	120	125	127
	VA3D, R	108	113		111	116		148	153	
	VA4D	183	188		186	191		223	228	
	VA4R	208	213		211	216		248	253	
4	VA2D, R	95	100	105	110	115	120	150	155	160
	VA3D, R	123	128		138	143		178	183	
	VA4D	198	203		213	218		253	258	
	VA4R	223	228		238	243		278	283	
5	VA3D, R	160	168	173	170	178	183	215	223	228
	VA4D	235	243		245	253		290	298	
	VA4R	260	268		270	278		315	323	
	VA5D	260	268		270	278		315	323	
	VA5R	285	293		295	303		340	348	
6	VA3D, R	230	240	245	240	250	265	300	310	315
	VA4D	305	315		315	325		375	385	
	VA4R	330	340		340	350		400	410	
	VA5D	330	340		340	350		400	410	
	VA5R	355	365		365	375		425	435	
8	VA4D	380	400		430	440		550	570	
	VA4R	405	425		455	465		575	595	
	VA5D	410	430		460	470		580	600	
	VA5R	435	455		485	495		605	625	
	PSA6R	460	480		510	520		630	650	
10	VA5D	560	600		690	710		750	780	
	VA5R	585	625		715	735		775	805	
	PSA6R	540	580		670	690		730	760	
12	VA5D	750	780		900	920		1000	1100	
	VA5R	775	805		925	945		1025	1125	
	PSA6R	730	760		880	900		980	1080	

Note) P: Plain bonnet, RF: Radiator finned bonnet, BS: Bellows seal bonnet

Note

Note

## Ordering Information

*When ordering, please specify ;*

- |  |  |
|--|--|
| 1) Model Number: VDC   | 10) Special requirement of degreasing, free from copper and etc.                                   |
| 2) Valve size × Port size of Cv required                         | 11) Name of flow medium  |
| 3) Type and rating of end connections                            | 12) Normal flow and maximum required flow  |
| 4) Body and trim material, necessity of hardening                | 13) Pressure of flow medium upstream and downstream pressure at maximum and minimum, required flow |
| 5) Plug characteristics (on-off, equal percentage, linear)       | 14) Temperature and specific gravity of flow medium  |
| 6) Type of bonnet  | 15) Viscosity of flow medium, inclusive or exclusive of slurry                                     |
| 7) Type of actuator, air to diaphragm                            |  |
| 8) Valve action (direct or reverse)                              |  |
| 9) Accessories (positioner, hand wheel, pressure regulator etc.) |  |

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<http://www.azbil.com/products/bi/order.html>

*Specifications are subject to change without notice.*



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8th Edition: Issued in June 2012

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