

Benefits

The fastest and easiest actuator to install and service in the industry. Compact, low clearance actuator suitable for confined area applications.



Characterized equal percentage models for accurate, stable control.



*Valves come with characterized disc inserted and are not field-adjustable.

Heavy duty, "pipe-fitter approved," wrench flats prevent end connections from rounding and eliminate poor wrench gripping.



SmartX Actuators

VBB/VBS Series Ball Valves
with Floating and Proportional M3 Actuators



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SmartX Actuator

Easy Installation

The new SmartX VBB/VBS series ball valves combine a unique, low force valve design with a compact actuator to create an assembly that is faster and easier to install than any other ball valve assembly in the industry.

Easy Customization

Field installation is further simplified with the ability to easily combine any actuator on any VBB/VBS valve body. Actuators and valves can be purchased separately, ensuring jobsite configurability and customization.

Easy Application

The VBB/VBS series products accept floating and proportional control signals from a DDC system, controller, or thermostat for control of hot or chilled water, and solutions of up to 60% glycol. This makes them ideal for installation in VAV re-heat, fan-coil and unit ventilation applications.

SmartX Actuator

Five Year Warranty for SmartX Actuators

Floating or Proportional Actuators



Non-Spring Return Floating/Proportional VBB/VBS Series Ball Valve SmartX Actuator



Spring Return Normally Open/Normally Closed Floating/Proportional VBB/VBS Series Ball Valve SmartX Actuator

Floating Actuators

Part Number	Control Signal	Spring Return Action (Valve Normal Position)	VA @ 24 Vac 50/60 Hz	Leads	Stroke Time, sec. 50/60 Hz	Time-out Delay, sec. 50/60 Hz
M332A00	Floating	None	3.2/3.3 ^d	Terminal Block ^b	159/135	181 Sec
M332A01				10 ft. (3.05 m) Plenum Cable ^c		
M312A00		Normally Open		Terminal Block ^b		
M312A01				10 ft. (3.05 m) Plenum Cable ^c		
M322A00		Normally Closed		Terminal Block ^b		
M322A01				10 ft. (3.05 m) Plenum Cable ^c		

Proportional Actuators

Part Number	Control Signal	Spring Return Action (Valve Normal Position)	VA @ 24 Vac 50/60 Hz	Leads	Stroke Time, sec. 50/60 Hz	Time-out Delay, sec. 50/60 Hz
M333A00	Proportional ^a (Vdc : 0...5, 0...10, 2...10, 5...10, 4...20 mA dc ^e)	None	2.7/2.8 ^d	Terminal Block ^b	159/135	200/166
M333A01				10 ft. (3.05 m) Plenum Cable ^c		145 Sec
M313A00		Normally Open		Terminal Block ^b		
M313A01				10 ft. (3.05 m) Plenum Cable ^c		
M323A00		Normally Closed		Terminal Block ^b		
M323A01				10 ft. (3.05 m) Plenum Cable ^c		

a. Default configured for 0...10 Vdc input signal, direct acting control.

b. All terminal block and appliance wire units accept a 1/2" conduit connector fitting (.875" diameter).

c. All plenum cable units include an integral 3/8" conduit connector fitting.

d. Size transformer for 10 VA per actuator.

e. For 4...20 mA control, a separate isolated transformer must be used with each valve.

g. Nominal.

Valve Bodies



VBB/VBS Valve

2-Way VBB/VBS Series Valve Bodies

Size	Brass Trim Part Number	Stainless Steel Trim Part Number	Thread	Cv (kvs)
1/2"	VBB2N00	VBS2N00	NPT	0.3 (0.3)
	VBB2N01	VBS2N01		0.7 (0.6)
	VBB2N02	VBS2N02		1.2 (1.0)
	VBB2N03	VBS2N03		2.1 (1.8)
	VBB2N04	VBS2N04		3.5 (3.0)
	VBB2N05	VBS2N05		4.7 (4.1)
	VBB2N06	VBS2N06		7.7 (6.7)
	VBB2N07 ^a	VBS2N07 ^a		10 (8.7)
3/4"	VBB2N11	VBS2N11	0.7 (0.6)	
	VBB2N12	VBS2N12	1.2 (1.0)	
	VBB2N13	VBS2N13	2.1 (1.8)	
	VBB2N14	VBS2N14	3.5 (3.0)	
	VBB2N15	VBS2N15	4.7 (4.1)	
	VBB2N16	VBS2N16	7.7 (6.7)	
	VBB2N17 ^a	VBS2N17 ^a	10 (8.7)	

a. Full port

3-Way VBB/VBS Series Valve Bodies

Size	Brass Trim Part Number	Stainless Steel Trim Part Number	Thread	Cv (kvs) A Port	Cv (kvs) B Port
1/2"	VBB3N02	VBS3N02	NPT	1.0 (.85)	0.8 (0.6)
	VBB3N05	VBS3N05		4.5 (3.8)	2.7 (2.3)
	VBB3N06	VBS3N06		7.3 (6.2)	4.1 (3.5)
	VBB3N07 ^a	VBS3N07 ^a		10.0 (8.5)	4.8 (4.1)
3/4"	VBB3N12	VBS3N12	1.0 (.85)	0.8 (0.6)	
	VBB3N15	VBS3N15	4.5 (3.8)	2.7 (2.3)	
	VBB3N16	VBS3N16	7.3 (6.2)	4.1 (3.5)	
	VBB3N17 ^a	VBS3N17 ^a	10.0 (8.5)	4.8 (4.1)	

a. Full port