

## 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.



# DuraDrive<sup>®</sup>

## VBB/VBS Series

Ball Valves & Actuators



On October 1st, 2009, TAC became the Buildings Business of its parent company Schneider Electric. This document reflects the visual identity of Schneider Electric, however there remains references to TAC as a corporate brand in the body copy. As each document is updated, the body copy will be changed to reflect appropriate corporate brand changes. All brand names, trademarks and registered trademarks are the property of their respective owners.

### Schneider Electric

1354 Clifford Avenue  
Loves Park, IL 61111  
Phone: + 1 888 444 1311  
[www.schneider-electric.com/buildings](http://www.schneider-electric.com/buildings)

© 2008-2009 Schneider Electric. All rights reserved.

Make the most of your energy

**Schneider**  
Electric

## DuraDrive®

### Easy Installation

The new DuraDrive® 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.

DuraDrive®

Five Year Warranty for DuraDrive Actuators

## Floating or Proportional Actuators



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



DuraDrive Spring Return Normally Open/Normally Closed Floating/Proportional VBB/VBS Series Ball Valve 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
M131A00 M131A01	Floating <sup>a</sup>	None	2.3/2.4	Terminal Block <sup>b</sup>	159/135	N/A
				10 ft. (3.05 m) plenum cable <sup>c</sup>		
M132A00 M132A01	Floating	None	2.5/2.5	Terminal Block <sup>b</sup>	159/135	217/181
				10 ft. (3.05 m) plenum cable <sup>c</sup>		
M112A00 M112A01	Floating	Normally Open	3.2/3.3 <sup>d</sup>	Terminal Block <sup>b</sup>	159/135	217/181
				10 ft. (3.05 m) plenum cable <sup>c</sup>		
M122A00 M122A01	Floating	Normally Closed	3.2/3.3 <sup>d</sup>	Terminal Block <sup>b</sup>	159/135	217/181
				10 ft. (3.05 m) plenum cable <sup>c</sup>		

a. No time-out feature. Controller must provide time-out after 3 minutes on time.  
 b. All terminal block units accept a 1/2" (12.7 mm) conduit connector fitting (.875" diameter (22.2 mm)).  
 c. All plenum cable units include an integral 3/8" (9.5 mm) conduit connector fitting  
 d. Size transformer for 10 VA per actuator.

### 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
M133A00 M133A01	Proportional <sup>a</sup>	None	2.7/2.8	Terminal Block <sup>b</sup>	159/135	200/166
M113A00 M113A01	(0-5 Vdc, 0-10 Vdc, 5-10 Vdc, 4-20 mA <sup>d</sup> )	Normally Open	2.7/2.8 <sup>d</sup>	Terminal Block <sup>b</sup>	159/135	200/166
				10 ft. (3.05 m) plenum cable <sup>c</sup>		
M123A00 M123A01	(0-5 Vdc, 0-10 Vdc, 5-10 Vdc, 4-20 mA <sup>d</sup> )	Normally Closed	2.7/2.8 <sup>d</sup>	Terminal Block <sup>b</sup>	159/135	200/166
				10 ft. (3.05 m) plenum cable <sup>c</sup>		

a. Jumper selectable. Default configured for 0 to 10 Vdc input signal, direct acting control  
 b. All terminal block units accept a 1/2" (12.7 mm) conduit connector fitting (.875" diameter (22.2 mm)).  
 c. All plenum cable units include an integral 3/8" (9.5 mm) conduit connector fitting.  
 d. Size transformer for 10 VA per actuator.

## 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"	VBB2N01	VBS2N01	NPT	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 <sup>a</sup>	VBS2N07 <sup>a</sup>		10 (8.7)
3/4"	VBB2N11	VBS2N11	NPT	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 <sup>a</sup>	VBS2N17 <sup>a</sup>		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 <sup>a</sup>	VBS3N07 <sup>a</sup>		10.0 (8.5)	4.8 (4.1)
3/4"	VBB3N12	VBS3N12	NPT	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 <sup>a</sup>	VBS3N17 <sup>a</sup>		10.0 (8.5)	4.8 (4.1)

a. Full port