

Control, Performance and Flexibility

DuraDrive Series Ball Valves and Actuators

Unique low force design with compact actuator



Make the most of your energy

Schneider
Electric

When performance matters...



...and the pressure is on, DuraDrive Series Ball Valves and Actuators deliver results you can count on

It's not easy to be a building owner today. Energy legislation and conservation initiatives are everywhere. To meet these pressing environmental challenges, building owners need efficient, reliable and cost-effective ways to control the performance of their buildings. What can a building owner do to manage in this rapidly changing environment?

Clearly, there are no "silver bullet, one-size-fits-all" solutions to improving building performance. The answer is to find individual solutions that work together and allow the whole building to perform better. Schneider Electric can help you improve the overall performance of your building with innovative products and solutions that deliver measurable results – year after year.

The DuraDrive ball valves and actuators are a revolutionary line of products that can help you solve these problems quickly and easily. Designed with intelligence, efficiency and a high degree of interchangeability, these valves and actuators are simple to operate and offer some exclusive industry firsts.

Engineered as a complete ball valve assembly, the DuraDrive series of valves and actuators are designed to be interchangeable and easily configured in the field. With this series, you will always be assured of valve and actuator compatibility. The Duradrive valve and actuator family is a powerful combination that brings together the best of both worlds; a unique, low force valve design and the world renowned, patented PopTop actuator. The result is a system that is energy efficient, highly reliable and easy to maintain.

It's never been easier to have a simple and cost effective valve and actuator system. And because this family of valves and actuators are from Schneider Electric, you can be sure these products come backed by superior customer service and support – maximizing your investment now and in the future.



Schneider Electric's comprehensive HVAC Control product portfolio is proven in thousands of installations worldwide. These powerful and reliable devices make building management systems operate more efficiently, save energy and provide optimal comfort for occupants.

Easy to install, easy to configure and easy to maintain



The DuraDrive series ball valve assemblies give you the freedom and flexibility to easily optimize and precisely control a wide variety of applications. Interchangeable valves and actuators make it simple to implement future upgrades and accommodate building system changes.

Many assembly configurations

The series consists of direct-coupled 2-position, floating or proportional spring return actuators; and floating or proportional non-spring return actuators. All can be mounted on 2-way or 3-way valve bodies. They accept control signals from a DDC system, controller or thermostat for control of hot or chilled water and solutions of up to 60% glycol.

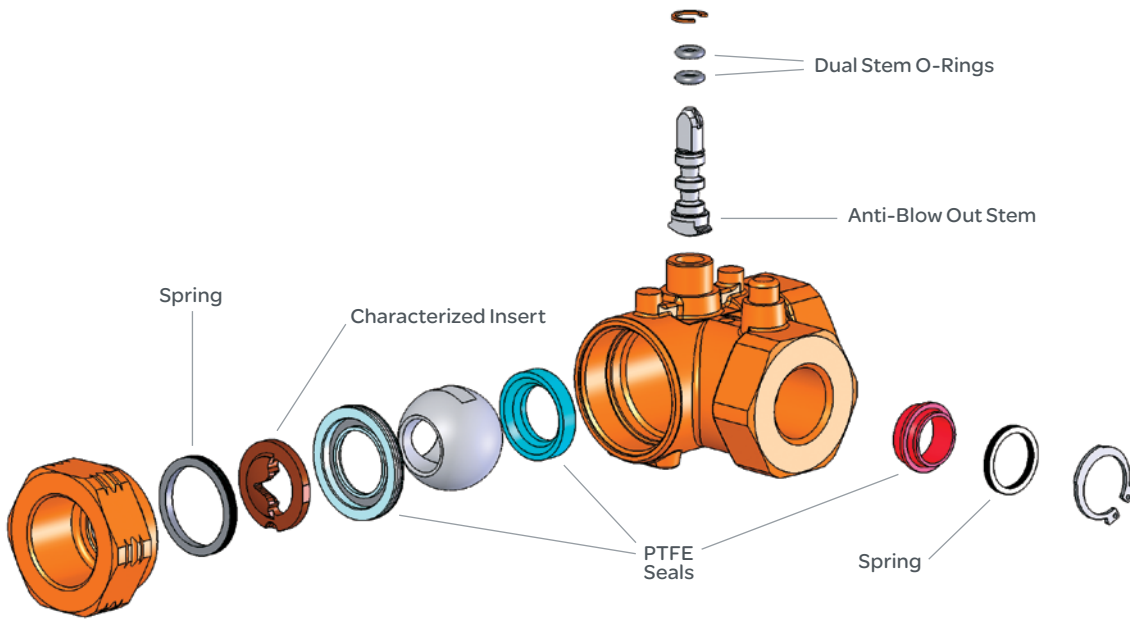
With Kv's up to 8.7, these assemblies are the right choice for most applications including VAV reheat, fan coil units and hot and chilled water coils in air handling units where higher close-off pressures are required. The valves are available in 1/2" and 3/4" sizes.

Easy to install

The Duradrive ball valve and actuator assemblies are easy to install, configure and operate. The compact, low clearance design is typically half the size of the valve assemblies they replace, making these assemblies ideal for confined areas, which are common in many HVAC environments. Only 25 mm of clearance is needed to remove the actuator. The over-sized wrench flat design is contractor friendly; keeping threads and flats from deforming during installation and common job site abuse.

Easy to configure

No complex or costly programming tool is required to configure these valve assemblies. Proportional models can be configured for the desired input control signal in the field. Simply remove the cover and move a jumper from the 0-10 Vdc to either 0-5 Vdc, 5-10 Vdc or 4-20 mA. Multiple input signal options in a single actuator make product selection easy and flexible.



PTFE seals allow for lower friction and higher temperature resistance. With the addition of wave springs, the PTFE seals continually adjust for wear and contamination.

Easy to maintain

The patented PopTop actuator makes it easy for installers to engage or detach the actuator from the valve body using the one-handed push lever. No tools are necessary for installation; this allows for easy servicing in hard to reach spaces.

300:1 Rangeability for more precise control

Higher rangeability enables all ball valves to regulate flow, particularly from a closed position through the lower portion of the flow curve where precise control is most critical. Higher rangeability provides greater temperature control, ultimately delivering superior performance and value.

Less leakage, more savings

The DuraDrive series offer the industry the best seat leakage rating, ANSI IV rated (0.01%) for both A and B ports. Building owners and installers know that if you don't have control at close off, you don't have control. More importantly, leakage is loss of energy. The tight seal design in these new valves means less leakage through the valve. This combined with modulating control, assures maximum control, increased energy efficiency and overall operational savings.

100% Inspected and water tested

All ball valves are inspected and water tested under pressure for proper operation. From the start, installers and customers are assured of more trouble free performance.



DuraDrive Ball Valves and Actuators give you freedom and flexibility

With all these benefits, it's easy to understand why choosing a DuraDrive ball valve assembly makes perfect sense. DuraDrive ball valve assemblies give you the freedom and flexibility to easily optimize and precisely control a wide variety of applications in HVAC building management systems. Interchangeable valves and actuators make it simple to implement future upgrades and accommodate building system changes. DuraDrive is all about the choices you have, to create the right combination for your needs – now and in the future.

2-Way Valve Bodies



2-Way Valve

Size	Part Number	Part Designation	Thread	Kvs
15 mm	VB210R-15BS03	VB210R-15BS 0.6T 00	Rp	0.6
	VB210R-15BS04	VB210R-15BS 1.0T 00		1.0
	VB210R-15BS05	VB210R-15BS 1.8T 00		1.8
	VB210R-15BS07	VB210R-15BS 3.0T 00		3.0
	VB210R-15BS08	VB210R-15BS 4.0T 00		4.0
	VB210R-15BS09	VB210R-15BS 6.3T 00		6.3
	VB200R-15BS ^a	VB200R-15BS 8.7T 00		8.7
20 mm	VB210R-20BS08	VB210R-20BS 4.0T 00	Rp	4.0
	VB210R-20BS09	VB210R-20BS 6.3T 00		6.3
	VB200R-20BS ^a	VB200R-20BS 8.7T 00		8.7

a. Full port



100% inspected and water tested. From the start, contractors and building maintenance staff are assured of more trouble free performance.

3-Way Valve Bodies



3-Way Valve

Size	Part Number	Part Designation	Thread	Kvs A Port
15 mm	VB310R-15BS03	VB310R-15BS 0.52T 00	Rp	.52
	VB310R-15BS04	VB310R-15BS 0.86T 00		.85
	VB310R-15BS05	VB310R-15BS 1.6T 00		1.6
	VB310R-15BS06	VB310R-15BS 2.5T 00		2.5
	VB310R-15BS08	VB310R-15BS 4.0T 00		4.0
	VB310R-15BS09	VB310R-15BS 6.3T 00		6.3
	VB300R-15BS ^a	VB300R-15BS 8.7T 00		8.7
20 mm	VB310R-20BS08	VB310R-20BS 4.0T 00	Rp	4.0
	VB310R-20BS09	VB310R-20BS 6.3T 00		6.3
	VB300R-20BS ^a	VB310R-20BS 6.3T 00		8.7

a. Full port

MB3, Floating & Proportional Actuators, Non-Spring Return



Non-Spring Return
Floating/Proportional Actuator

Part Number	Type Designation	Control Signal	VA @ 24 Vac 50/60 Hz	Stroke Time, sec. 50/60 Hz	Time-out Delay, sec. 50/60 Hz
MB3-24F	MB3-24F T31 00	Floating	2.3/2.4	159/135	N/A ^c
MB3-24F-T3	MB3-24F T31 T3		2.5/2.5		217/181
MB3-SO-24F	MB3 SRO-24F T31 T3	Proportional ^a (0-5 V, 0-10 V, 5-10 V, 4-20 mA ^b)	2.7/2.8		200/166
MB3-SC-24F	MB3 SRC-24F T31 T3				

MB3, Floating & Proportional Actuators, Spring Return



Spring Return
Normally Open/Normally Closed
Floating/Proportional Actuator

Part Number	Type Designation	Control Signal	Spring Return Action	VA @ 24 Vac 50/60 Hz	Stroke Time, sec. 50/60 Hz	Time-out Delay, sec. 50/60 Hz
MB3-SO-24F	MB3 SRO-24F T31 T3	Floating	Normally Open	3.2/3.3 ^b	159/135	217/181
MB3-SC-24F	MB3 SRC-24F T31 T3		Normally Closed			
MB3-SO-24M	MB3 SRO-24M T31 00	Proportional ^a (0-5 V, 0-10 V, 5-10 V, 4-20 mA ^b)	Normally Open	2.7/2.8 ^b		200/166
MB3-SC-24M	MB3 SRC-24M T31 00		Normally Closed			

MB6, Two-Position Actuators, Spring Return



Spring Return
Normally Open/Normally Closed
Two-Position Actuator

Part Number	Type Designation	Spring Return Action (Valve Normal Position)	Stroke Time, sec.	Spring Return Time, sec.	VA @ 24 Vdc	Power Consumption AC/DC
MB6-SO-24T	MB6 SRO-24T T31 00	Normally Open	50	30	3.5/1.8	2.3/1.6 W
MB6-SC-24T	MB6 SRC-24T T31 00	Normally Closed				



The built in Time Out feature prevents excessive actuator wear when the control signal time out is not set by the controller.

a. Jumper selectable. Default configured for 0 to 10 Vdc input signal, direct acting control.
 b. Size transformer for 10 VA per actuator.
 c. No time-out feature. Controller must provide time-out after three minutes.

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