

# FORTA

## Globe Valve Actuators

The next generation in flexibility, speed and performance



Make the most of your energy

**Schneider**  
Electric

## FORTA: A new name for 'breakthrough'



First introduced in 2008, FORTA globe valve actuators have again taken another leap forward, this time with Spring Return actuators for both “normally open” and “normally closed” valves used for heating or cooling applications and optional NEMA 4 (IP65) models. Now, wherever fast, highly accurate and extremely flexible globe valve control performance is required, HVAC contractors and systems engineers have a full range of FORTA actuators to choose from. The new M900 spring return actuators make the FORTA Series of actuators a complete, powerful solution to reduce operating costs, and minimize installation and maintenance time.

### Flexible inputs

Only FORTA can handle every standard proportional and floating control input signal with just the flip of a switch. No special tools or the addition of a plug-in circuit board is required to handle both floating and proportional input signals. With FORTA, inventory and installation have never been easier.

### Optimized Performances

Four Non Spring Return general models deliver a full range of 90 lbf to 337 lbf linear force for 1/2" to 6" globe valves and a 202 lbf Spring Return model that will work with 1/2" to 4" globe valves. ‘ONE TOUCH’ stroke calibration effortlessly calibrates the actuator to any required stem stroke length between 3/8" to 2". FORTA's automatic input scaling allows it to quickly learn the valve's travel by itself and scale its input signal to match.

### Reversible Control

FORTA automatically accounts for “normally open” and “normally closed” valves and their required input signal actions with just the flip of a switch to speed and simplify the configuration process.

### Tough construction

Simple, robust, die cast aluminum construction allows FORTA to be mounted and linked to a valve in seconds using new screw mount style (Venta VB-7000) or U-Bolt style (VB-8000 & VB-9000).

### Adaptable

Designed for any environment; chilled, hot water or steam applications; with UL, CUL and plenum rated enclosures; FORTA is simply the most versatile actuator in its class.

## Actuator & Linkage Selection Guide

### Non Spring Return M400A, M800A, M1500A



Short Forta  
Screw Mount



Tall Forta  
U-Bolt

VB-7000	Direct Mount
VB-8000	N/A
VB-9000	N/A

Mount with AV-821 Linkage
Mount with AV-822 Linkage
Mount with AV-822 Linkage

### NEMA 1/2 (IP40 / IP54) or NEMA4 (IP65)



Short Forta  
Screw Mount



Tall Forta  
U-Bolt

Direct Mount
N/A
N/A

Mount with AV-821 Linkage
Mount with AV-822 Linkage
Mount with AV-822 Linkage

FORTA actuators are the perfect complement to the renowned performance you've already come to expect from your Venta VB-7000, VB-8000 and VB-9000 globe valves. While FORTA is an easy choice for the latest Schneider Electric globe valves, and can mount directly in seconds, they're also easily compatible with many popular installed Barber Colman, Johnson Controls, Honeywell, Siemens and Robertshaw globe valves, with the use of a simple adapter kit. FORTA... arriving just in time.

### Fast, flexible, reliable, precision control

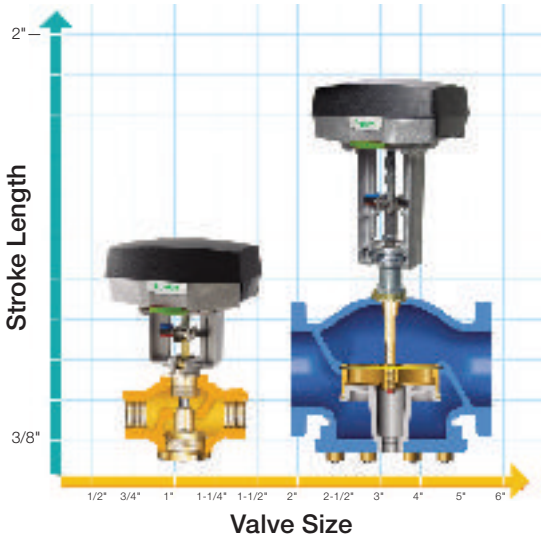
FORTA Globe Valve Actuators are designed to mount on our complete line of 2- and 3-way globe valves as well as our major competitors' globe valves. A tested and proven advanced technology design makes FORTA one of the industry's best built, most application-flexible actuator solutions. They are designed to work with 2- and 3-way globe valves for chilled water, hot water, and steam HVAC applications.

### Features:

- Two mounting styles available: new screw mount style or U-Bolt style connections.
- Built-in Universal Control Signal (no tools required); all models can be easily field-configured
- Floating control, controlled by SPDT center-off or two Triacs
- Proportional control 0-10, 2-10 vdc or 4-20 ma
- Sequence configuration control 0-5/5-10 or 2-6/6-10 vdc
- Position feedback— M900A: 2-10vdc or 0-5vdc  
M400A, M800A, and M1500A: 2-10vdc
- Four linear force ranges to cover our complete ½" through 6" globe valve offering
- 24 VAC/DC powered
- Die-Cast housing and cover or with UL Plenum rated plastic cover
- Manual override
- Electronic flow curve selection
- Easy 'One Touch' input signal/stroke calibration
- Optional auxiliary switches
- Stroke >3/8" to 2" for U-Bolt Style, 3/8" to 1-7/8" for Screw Mount Style
- Stroke Timing  
Floating 60 or 300 sec selectable  
Proportional 15 sec @ ½ stroke
- Power Supply Type Half Wave
- Motor Brushless DC
- M900AxW models available with NEMA 4 (IP65) enclosures
- Sound Power Level Max 32 dba for the non spring return M400A, M800A, and M1500A units, 43 dba for the spring return M900A units
- Agency Listings UL873, cULus, C-tick

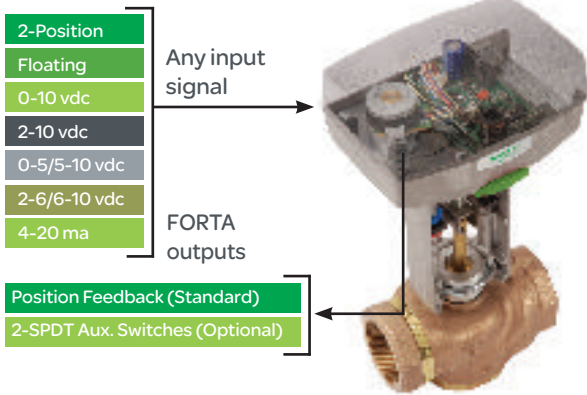
# Now one model does it all, with one-touch switching

## Sets up automatically



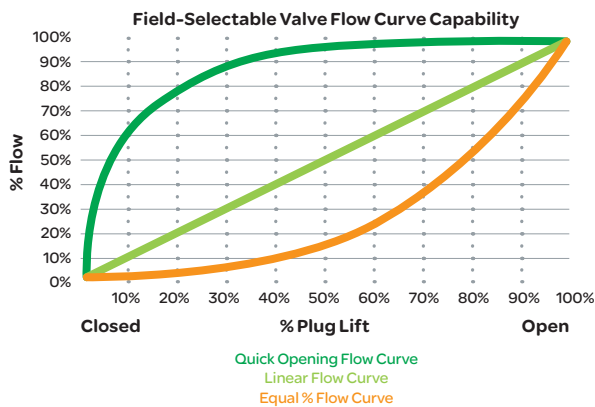
Smart move... setting up for different globe valve stroke lengths use to be a tedious and time-consuming process. Not anymore. FORTA's 'One Touch' automatic input scaling allows the actuator to actually learn the valve stem's travel and scale its input signal to match. It can easily accommodate stroke lengths of between 3/8" and 2", and globe valve sizes from 1/2" to 6" – and learn any stroke in seconds with just the flip of a switch.

## 'Synchs' to any input signal



Brilliant... the only thing easier than setting up FORTA is configuring it. That's because one model handles any input signal. Need floating control instead of a 0-10 vdc input signal? No problem; going from proportional to floating is as easy as flipping Switch #2. In fact, FORTA can be configured to any common input signal in just seconds, making product selection and inventory as easy as point... and switch.

## Optimal Valve Performance



Intelligent... not all applications are created equal. That's why the FORTA actuators are designed to help optimize valve performance for every application. FORTA's field-selectable valve flow curve capability enables you to convert an equal percentage curve to be more linear – or convert a linear flow curve to be quick opening – with just the flip of a switch. The bottom line? FORTA always gives you the most energy-saving, most efficient operation.

## Easily assembled with Venta VB-7000 or VB-8000/9000 Series Globe Valves

The Venta VB-7000 1/2" to 2" series offer a variety of options to choose from including threaded, sweat, union, and other end connections; stem up open and stem up closed two way and three way mixing and diverting units. The VB-8000/9000 2 1/2" to 6" series are available with cast iron flanged stem up open and stem up closed two way units and three way mixing and diverting units. All valves are designed for easy field installation with Forta actuators. For your convenience, popular valve and actuator combinations are available as factory Forta valve and actuator assemblies.

### Venta VB-7000 Selection



Screw Mount

Valve Size	M400A-VB (90lbf)	M800A-VB (180lbf)	M1500A-VB (337lbf)	M900Ax-VB (202lbf) Spring Return
1/2"	•			•
3/4"	•	•		•
1"	•	•		•
1-1/4"	•	•		•
1-1/2"	•	•	•	•
2"	•	•	•	•

### VB-8000/9000 Selection



U-Bolt Mount

Valve Size	M800A (180lbf)	M1500A (337lbf)	M900Ax (202lbf) Spring Return
2-1/2"	•*	•	•
3"	•*	•	•
4"	•*	•	•
5"		•	
6"		•	

\* VB-9313 only

### Specifications

Actuator Type	Part Number	Power	Input Signal	Spring Return Action	Feedback	Force	Auxiliary Switch			
U-Bolt	M400A	24 vac 50-60 Hz	Proportional 0-10, 2-10 vdc, or 4-20 ma	N/A	2-10 vdc	90 lbf	None			
	M400A-S2						2-SPDT			
	M800A					180 lbf	None			
	M800A-S2						2-SPDT			
	M1500A					337 lbf	None			
	M1500A-S2						2-SPDT			
Screw Mount	M400A-VB				24 vac 50-60 Hz	Proportional 0-10, 2-10 vdc, or 4-20 ma	N/A	2-10 vdc	90 lbf	None
	M400A-S2-VB									2-SPDT
	M800A-VB								180 lbf	None
	M800A-S2-VB									2-SPDT
	M1500A-VB								337 lbf	None
	M1500A-S2-VB									2-SPDT
U-Bolt	M900ARW	24 vac 50-60 Hz	Proportional 0-10, 2-10 vdc, or 4-20 ma	Retract Up	0-5 or 2-10 vdc	202 lbf	None			
	M900ARW-S2			Retract Up			2 SPDT			
	M900AE			Extend Down			None			
	M900AEW-S2			Extend Down			2 SPDT			
Screw Mount	M900ARW-VB					Retract Up			None	

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