



Schneider
Electric

DESCRIPTION

The **Schneider Electric Forta Series globe valve actuator** is a programmable linear actuator family for use with VB7000, VB8000 and VB9000 series two- and three-way valves. The actuators are easily configured for floating or proportional control, direct or reverse action, stroke timing and flow characteristics. An automatic input control signal setup allows for easy field installation onto existing Schneider Electric globe valves. The Forta actuator can also be purchased as part of a complete valve assembly for new applications/installations (order the VU Series).

FEATURES

- *Floating or proportional control in the same actuator*
- *Proportional configuration 0-10, 2-10 VDC or 4-20 mA, 500Ω resistor included*
- *Direct/Reverse action (switch selectable)*
- *Configurable run time*
- *Manual override*
- *Electronic valve sequencing and flow characteristic (equal percentage or linear) selection*
- *Torque overload protection (full stroke)*
- *Easy auto zero and span*



M800A-VB
(screw-mount, linkage not required)



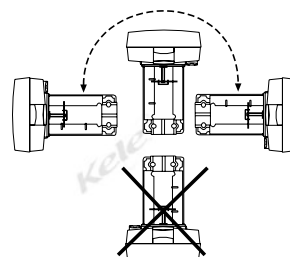
M400A with AV-821
on a VB-7213-0-4-07
(U-Bolt Style)



3

CONTROL VALVES

MOUNTING



SPECIFICATIONS

Supply Voltage	24 VAC \pm 10%, 50/60 Hz	Valve Mounting	U-Bolt or Screw Mount
Supply VA		AV-821	Used with U-Bolt version on current VB-7XXX valves
M400	6 VA	AV-822	Used with U-Bolt version on current VB-8XXX valves and older VB-9XXX valves
M800	15 VA		
M1500	24 VA	Manual Override	Yes
Control Signal	Floating or Proportional 0/2-10 VDC or 4-20 mA	Operating Temperature	14° to 122°F (-10° to 50°C) for chilled water applications; maximum temperature reduces to 90°F (32°C) when media temperature is 366°F (186°C)
Motor	Brushless DC	Operating Humidity	15% to 95% RH non-condensing
Noise	32 dBA maximum	Enclosure Rating	NEMA 2 (IP54) if both conduit connectors used, otherwise NEMA 1 (IP40)
Conduit Connection	Two knockouts, 7/8" (2.2 cm)	Dimensions	
Wiring	Screw terminals	Tall U-Bolt Style	9.5"H x 6.3"W x 4.6"D (24.2 x 16.0 x 11.7 cm)
Feedback	2-10 VDC	Screw Mount	6.4"H x 6.3"W x 4.6"D (16.3 x 16.0 x 11.7 cm)
Auxiliary Switch	Two SPDT, 4A resistive @ 24 VAC (model specific)	Weight	3.9 lb (1.8 Kg)
Action	Non-spring return, direct or reverse DIP switch selectable	Approvals	C-tick, CE
Force		Warranty	1 year
M400	90 lbf (400 N)	Note: Screw version actuators designed for VB-7XXX only.	
M800	180 lbf (800 N)		
M1500	337 lbf (1500 N)		
Stroke	3/8" to 2" (.9 to 5.2 cm)		
Stroke Time	Floating, 60 or 300 seconds; Proportional, 15 seconds (for 1/2" stroke)		



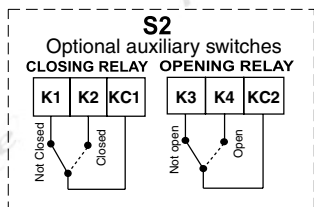
CONTROL VALVES

GLOBE VALVE ACTUATORS FORTA SERIES

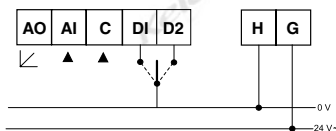
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CONTROL VALVES

WIRING



*add- S2 to model number for auxiliary switch



Terminal	Function	Description
G	24 vac	power
H	24 vac	power
AI	+	input signal
C	-	signal common
D1	Floating	Extend/Retract*
D2	Floating	Extend/Retract*
A0	+	feedback signal

*Exact operation will vary based on the settings of DIP switch #1 and #7

DIP SWITCH SETTINGS

MOD	Function in the "OFF" position	Function in the "ON" position	Description
---	Modulating	Increase/decrease	Control
2-10	SEQ	Sequence	Control
6-10, 5-10	0-10	2-10 V	Voltage range
60 s	2-6, 0-5	6-10 V, 5-10 V	Part of voltage range
NORM	300 s	60 s	Running time
NORM	INV	Normal	Direction of movement
OP	LIN/LG	Normal	Valve characteristic
	ADJ	Operation	Operation/End position adjustment

COMPATIBILITY

VB-7000 Bronze Valve

(AV-821 linkage required for M400A, M800A, M1500A)

Valve size	M400A/ M400A-VB (90 lbf)	M800A/ M800A-VB (180 lbf)	M1500A/ M1500A-VB (337 lbf)
1/2"	✓		
3/4"	✓	✓	
1"	✓	✓	
1-1/4"	✓	✓	
1-1/2"	✓	✓	✓
2"	✓	✓	✓

VB-8000/9000 Flanged Iron Valve

(AV-822 linkage required)

Valve size	M400A (90 lbf)	M800A (180 lbf)	M1500A (337 lbf)
2-1/2"		✓	✓
3"		✓	✓
4"		✓	✓
5"			✓
6"			✓

* VB-9313 only

ORDERING INFORMATION

MODEL

M400A

M400A-S2

M400A-S2-VB

M400A-VB

M800A

M800A-S2

M800A-S2-VB

M800A-VB

M1500A

M1500A-S2

M1500A-S2-VB

M1500A-VB

DESCRIPTION

90 lbf, NSR, proportional/floating control, U-bolt mount actuator (requires AV-81x linkage)

90 lbf, NSR, proportional/floating control, U-bolt mount actuator, auxiliary switch (requires AV-81x linkage)

90 lbf, NSR, proportional/floating control, screw-mount, U-bolt mount actuator, auxiliary switch (VB-7XXX only)

90 lbf, NSR, proportional/floating control, screw-mount (VB-7XXX only)

180 lbf, NSR, proportional/floating control, U-bolt mount actuator (requires AV-81x linkage)

180 lbf, NSR, proportional/floating control, U-bolt mount actuator, auxiliary switch (requires AV-81x linkage)

180 lbf, NSR, proportional/floating control, screw-mount, auxiliary switch (VB-7XXX only)

180 lbf, NSR, proportional/floating control, screw-mount

337 lbf, NSR, proportional/floating control, U-bolt mount actuator (requires AV-81x linkage)

337 lbf, NSR, proportional/floating control, U-bolt mount actuator, auxiliary switch (requires AV-81x linkage)

337 lbf, NSR, proportional/floating control, screw-mount, auxiliary switch (VB-7XXX only)

337 lbf, NSR, proportional/floating control, screw-mount

AV-821

AV-822

ACCESSORIES

Linkage for VB-7xxx valves (required for U-bolt mount actuator)

Linkage for VB-8xxx & VB-9xxx valves (required for U-bolt mount actuator)