

HVAC CONTROL PRODUCTS
Actuators

Terminal Unit Valve Actuators

VA-7070

Thermal ON/OFF Control

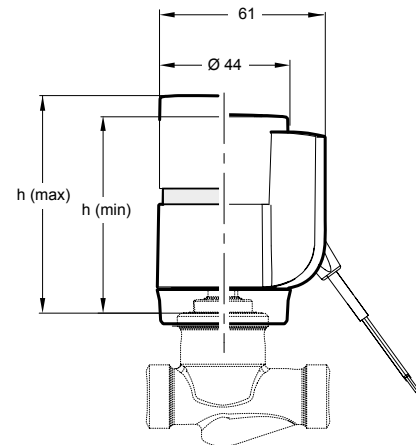
The VA-707x series terminal unit valve actuators provide ON/OFF and DAT control in HVAC application.

The compact design of these actuators make them suitable for installations in confined spaces, such as fan-coil applications.

The VA-707x actuators are designed for field mounting onto all Johnson Controls terminal unit valves: VG6000, V5000, VP1000 (see pertinent bulletins).

Features

- 24 VAC/DC and 230 VAC power supply
- ON/OFF or DAT Controls
- NC version (stem retracts when energized)
- NO version (stem extends when energized)
- Easy mounting solution
- Factory mounted cable 2 m



Dimensions in mm

	h (max)	h (min)
Normally Closed	66	59
Normally Open	64	59

HVAC CONTROL PRODUCTS Actuators

Terminal Unit Valve Actuators

VA-7070

Ordering Codes	Supply Voltage	Action Control	Force	Stroke	Factory Setting	Mounting Thread	Protection Class	Packaging	Power Consumption	
									Continuous	Start-up
VA-7071-21	24 VAC/VDC	ON/OFF or DAT	125 N	4.5 mm	Normally Closed (stem retracts when energized) 2 m cable length	M28x1.5	IP54	Single packaged in carton box	3 W	6 W (220 mA) max
VA-7078-21						M30x1.5				
VA-7071-23	230 VAC					M28x1.5			2.5 W	36 W (150 mA) max
VA-7078-23						M30x1.5				
VA-7078-01D	24 VAC/VDC				Normally Closed (stem retracts when energized) Cable not included. Must be ordered separately	M30x1.5		Bulk pack 50 pcs	3 W	6 W (220 mA) max
VA-7078-03D	230 VAC					M30x1.5				
VA-7070-21	24 VAC/VDC				Normally Open (stem extends when energized) 2 m cable length	M28x1.5		Single packaged in carton box	3 W	6 W (220 mA) max
VA-7077-21						M30x1.5				
VA-7070-23	230 VAC					M28x1.5			2.5 W	36 W (150 mA) max
VA-7077-23						M30x1.5				
VA-7077-01D	24 VAC/VDC				Normally Open (stem extends when energized) Cable not included. Must be ordered separately	M30x1.5		Bulk pack 50 pcs	3 W	6 W (220 mA) max

Accessories (order separately)

Ordering Codes	Description	Single Packaged
0550602801	Cable kit 0.8 m	Carton Box
0550602011	Cable kit 1 m	
0550602021	Cable kit 2 m	
0550602042	Cable kit 4 m	Plastic Bag
0550602052	Cable kit 5 m	
0550602062	Cable kit 6 m	
0550602072	Cable kit 7 m	
0550602102	Cable kit 10 m	
0550602152	Cable kit 15 m	
0550602053	Cable kit 5 m – Halogen free	
0550602103	Cable kit 10 m – Halogen free	
0550390001	Threaded nut M30x1.5 with normal and short pin	
0550390101	Threaded nut M28x1.5 with normal and short pin	
0550390201	Threaded nut M30x1 with normal and short pin	
0550484121	Kit auxiliary switch (Normally Closed) 2 m cable	
0550484221	Kit auxiliary switch (Normally Open) 2 m cable	

HVAC CONTROL PRODUCTS
Actuators

Terminal Unit Valve Actuators

VA-7090

Thermal 0...10 V Control

The VA-709x series terminal unit valve actuators provides proportional control in HVAC application.

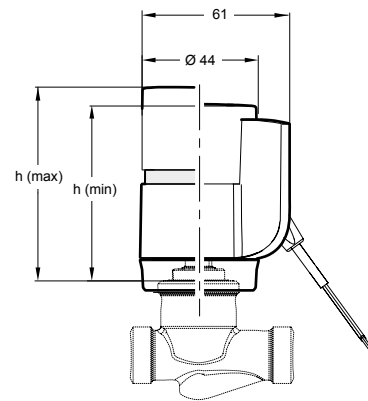
The compact design of these actuators make them suitable for installations in confined spaces, such as fan-coil applications.

The VA-709x actuators are designed for field mounting onto all Johnson Controls terminal unit valves: VG6000, V5000, VP1000 (see pertinent bulletins).

Moreover, thanks to an innovative fixing system, the VA-709x is suitable for almost all the terminal unit valves in the market.

Features

- 24 VAC power supply
- 0...10 V control signal
- NC version (stem retracts when energised)
- NO version (stem extends when energised)
- Easy mounting solution
- Factory mounted cable 2 m



Dimensions in mm

	h (max)	h (min)
Normally Closed	66	59
Normally Open	64	59

Ordering Codes	Supply Voltage	Action Control	Force	Stroke	Factory Setting	Mounting Thread	Protection Class	Packaging	Power Consumption	
									Continuous	Start-up
VA-7090-21	24 VAC	0...10 V	125 N	4.5 mm	Normally Open	M28x1.5	IP54	Single packaged in carton box	2 W	250 mA
VA-7091-21					Normally Closed					
VA-7097-21					M30x1.5	Normally Open				
VA-7098-21						Normally Closed				

Accessories (order separately)

Ordering Codes	Description	Packaging
0550390001	Elevated Bayonet Nut M30x1.5 with normal and short insert	Single packaged in Plastic Bag
0550390101	Elevated Bayonet Nut M28x1.5 with normal and short insert	
0550390201	Elevated Bayonet Nut M30x1 with normal and short insert	

HVAC CONTROL PRODUCTS
Actuators

Terminal Unit Valves Actuators

VA-7480

Motorized Floating and Proportional Control

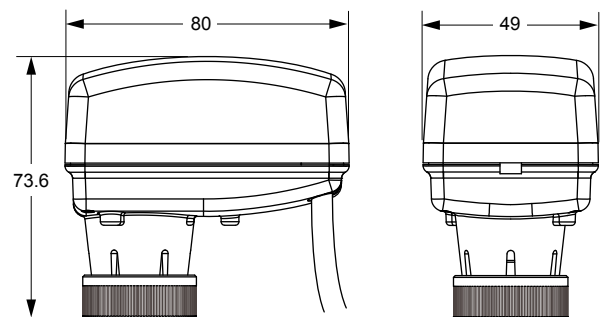
The VA-748x series provides floating or proportional control in HVAC applications. The compact design of this actuator makes it suitable for installation in confined spaces, such as fan coil, chilled ceiling, manifolds, etc.

The VA-748x series actuator is designed for field mounting onto VG6000, V5000 and VP1000 terminal unit valves (*see pertinent bulletin*).

Due to the innovative concept of different strokes setting the VA-748x can be installed over most of the terminal unit valve in the market.

Features

- 24 VAC/VDC and 230 VAC power supply
- Floating and proportional control
- Threaded nut M28x1.5 and M30x1.5
- Auto stroke detection (**NEW!**)
- Configurable stroke
- Configurable to direct and reverse action
- Configurable analog inputs
- Max mechanical stroke 6.3 mm



Dimensions in mm

Ordering Codes	Control Type	Power Supply	Running Time	Nominal Force	Factory Stroke Configuration	Cable Length	Mounting Thread nut	Upper Mechanical End Stroke					
VA-7480-0011	Floating	24 VAC	13 sec/mm	120 N	---	1.5 m (PVC)	M28x1.5	16.3					
VA-7481-0011			8 sec/mm										
VA-7480-0001			13 sec/mm										
VA-7481-0001			8 sec/mm										
VA-7480-4001			13 sec/mm										
VA-7480-4003			13 sec/mm										
VA-7480-0013		230 VAC	13 sec/mm				M30x1,5	14.5					
VA-7481-0013			8 sec/mm										
VA-7480-0003			13 sec/mm										
VA-7481-0003			8 sec/mm										
VA-7482-0011			Proportional						24 VAC/VDC	8 sec/mm	3.2 mm	M30x1,5	16.3
VA-7482-1001											4.3 mm		
VA-7482-2001	6.0 mm												
VA-7482-3001	2.8 mm												
VA-7482-5001	5.3 mm												
VA-7482-6001	5.8 mm												
VA-7482-7001	160 N	Auto stroke detection		2 m (Halogen Free)	M30x1,5	14.5							
VA-7482-8201 NEW!							16.3						
VA-7482-9201 NEW!							14.5						

HVAC CONTROL PRODUCTS

Actuators

Non Spring Return Plant Valve Actuators

VA-7150

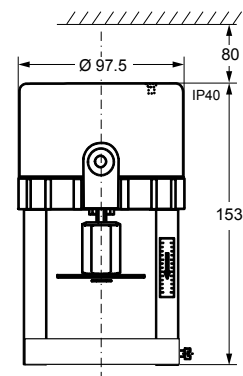
Floating and Proportional Controls

The VA-7150 series synchronous motor driven actuator provides floating or proportional control of valves with up to 19 mm stroke in heating, ventilation and air conditioning applications.

This compact, non-spring return actuator has 500 N nominal thrust and responds to a variety of input signals. The VA-7150 series can be easily installed on site or ordered pre-fitted to VG7000, VGS800 and VG9000 flanged valve series in accordance with the specified maximum close-off pressure ratings.

Features

- 500 N force output in a compact unit
- Magnetic clutch
- Unique Yoke Design
- Coupler for simple actuator attachment to flanged valves
- Positioner with adjustable starting point and span, reverse and direct action modes
- "Signal fail" safe position



Dimensions in mm

Ordering Codes	Supply Voltage (50/60 Hz)	Action Control	Protection Class	Coupler Type	
VA-7150-1001	24 VAC	Floating	IP40	Threaded	
VA-7150-1003	230 VAC				
VA-7150-8201	24 VAC			Slotted	
VA-7150-8203	230 VAC				
VA-7152-1001	24 VAC	Proportional 0...10 V			Threaded
VA-7152-8201					Slotted

HVAC CONTROL PRODUCTS

Actuators

Non Spring Return Plant Valve Actuators

VA-7200

Floating and Proportional Controls

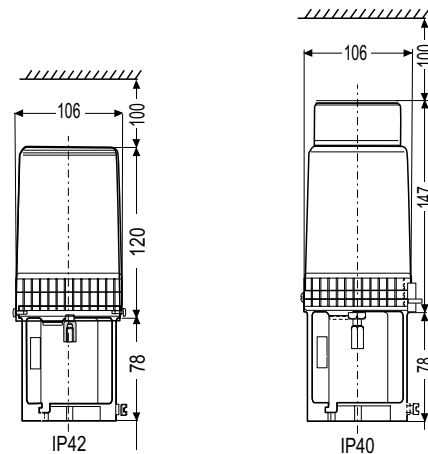
The VA-720x Series synchronous motor driven actuator provides floating or proportional control of valves, with up to 19 mm stroke in heating, ventilation and air conditioning applications.

This compact, non-spring return actuator has a 1000N nominal force and responds to a variety of input signals.

The VA-7200 Series can be easily field mounted or ordered factory coupled to VG7000, VG8000, VG9000 and VGS800 Series valves in accordance with the specified maximum close-off pressure ratings.

Features

- 1000N Force Output compact unit
- Magnetic clutch
- Signal fail "safe position"



Dimensions in mm

Ordering Codes	Supply Voltage (50/60 Hz)	Control	Motor Rating	Protection Class
For VG7000 Series Valves				
VA-7200-1001	24 VAC	Floating	5 W	IP42
VA-7202-1001		Proportional 0...10 VDC / 0(4)...20 mA		
For VG8000 / VG9000 / VGS8000				
VA-7200-8201	24 VAC	Floating	5 W	IP42
VA-7202-8201		Proportional 0...10 VDC / 0(4)...20 mA		

HVAC CONTROL PRODUCTS

Actuators

Non Spring Return Plant Valve Actuators

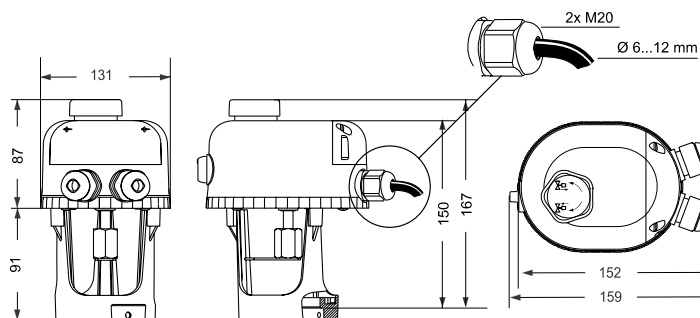
VA-7700

Floating and Proportional Controls

The VA-7700 series provides floating and proportional control and can be mounted onto VG7000, VGS800 and VG9000 valves.

Features

- 24 VAC and 230 VAC power supply
- Floating and proportional control
- Manual override
- LED operating status display
- Self calibrating
- IP54 enclosive protection



Dimensions in mm

Mounting onto VG7000 Series Valves

Ordering Codes	Supply Voltage (50/60Hz)	Action Control	Force	Stroke	Full Stroke Time	Protection Class	Power Consumption
VA-7700-1001	24 VAC	Floating	500 N	20 mm	190 s	IP54	2.4 VA
VA-7700-1003	230 VAC						
VA-7740-1001	24 VAC						
VA-7740-1003	230 VAC						
VA-7706-1001	24 VAC	Proportional					4.4 VA
VA-7746-1001							

Mounting onto VGS8000 and VG9000 Series Valves

Ordering Codes	Supply Voltage (50/60Hz)	Action Control	Force	Stroke	Full Stroke Time	Protection Class	Power Consumption
VA-7700-8201	24 VAC	Floating	500 N	20 mm	190 s	IP 54	2.4 VA
VA-7700-8203	230 VAC						
VA-7740-8201	24 VAC						
VA-7740-8203	230 VAC						
VA-7706-8201	24 VAC	Proportional					4.4 VA
VA-7746-8201							

HVAC CONTROL PRODUCTS

Actuators

Non Spring Return Plant Valve Actuators

VA7810

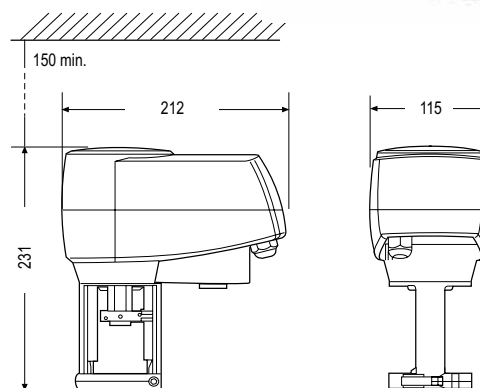
Floating and Proportional Control

The VA7810 Non Spring Return actuator with 1000 N thrust for valves in heating, ventilation and air conditioning applications is available for floating (3-point) control or proportional control. All models have manual override as standard and provide stroke capabilities of 7 mm to 25 mm. Proportional models are self-calibrating.

The actuator is intended for use with Johnson Controls VG7000 and VGS800 threaded valves as well as VG9000, VG8000 and VG8300 flanged valves. All valves should be fitted in accordance with the maximum close-off pressure ratings specified. Valve-actuators can be ordered as separate units or as a factory fitted valve / actuator combinations.

Features

- Proportional actuators are self calibrating
- All models can also be used as floating and ON/OFF actuators
- Force controlled motor shut-off
- Manual override as standard
- IP54 enclosure protection
- Delivered with fitted 1.5 m cable and wire terminals
- Status LED
- Models with optional aux. switches or 2 k Ω feedback potentiometer
- Control-Signal failure - stem to pre-determined position
- Stroke position indicator



Dimensions in mm

Mounting onto VG7000 Series Valves

Ordering Codes	Supply Voltage (50/60Hz)	Action Control	Force	Stroke	Full Stroke Time	Protection Class	Power Consumption	Spring Return Action	Accessories Factory mounted
VA-7810-ADA-11	230 VAC	ON/OFF or Floating	1000 N	25 mm	150 s	IP 54	8 VA	---	---
VA-7810-ADC-11							2 aux switches		
VA-7810-AGA-11	24 VAC	ON/OFF, Floating or Proportional	1000 N	25 mm	150 s	IP 54	3 VA	---	---
VA-7810-AGC-11							2 aux switches		
VA-7810-AGH-11					2 K Ω pot				
VA-7810-GGA-11					---				
VA-7810-GGC-11					150 s (selectable 75 s)		6 VA		2 aux switches

Note

- * : **xx** = **11** Actuator with threaded coupler for VG1000 Valves
12 Actuator with clamp coupler for VG8000, VG9000, VGS800 Valves

HVAC CONTROL PRODUCTS

Actuators

Non Spring Return Plant Valve Actuators

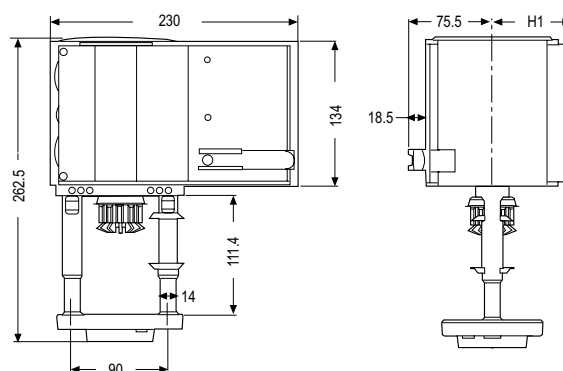
VA1000

Floating and Proportional Controls

The VA1000 valve actuators are used to control valves in HVAC systems. They are of modular construction so that the required type of control signal is achieved simply by fitting a module with the required function in-situ. It can be mounted onto VG8000, VG8300 and VG9000 series valves.

Features

- 24 VAC and 230 VAC power supply
- Floating and Proportional control
- Manual override
- Automatic stem coupling
- Actuator fixed to valve with one ring nut
- Self adjusting, automatic stroke adjustment, calibrated pressure control at the end positions
- 2 aux. switches, feedback potentiometer and split range unit available
- IP66
- Selectable characteristic curve
- Selectable running time



Dimensions in mm

	VA1125-GGA-1	VA1220-GGA-1 & VA1420-GGA-1
H1	60 mm	73 mm

Ordering Codes	24V Actuators	Power Consumption	Protection Class	Nominal Stroke
VA1125-GGA-1	2500N; Non-spring return	20.5 VA	IP66	49 mm

Accessories modules for in-situ installation

VA1000-M230N	AC 230V module
VA1000-M100N	AC 100V module
VA1000-P2	2 K Ω feedback potentiometer
VA1000-S2	2 SPDT aux. switches
VA1000-SRU	Split range unit module for proportional actuators only
VA1000-EP	Extension kit for applications with temperatures greater than 140°C up to 200°C

HVAC CONTROL PRODUCTS
Actuators

Non Spring Return Plant Valve Actuators

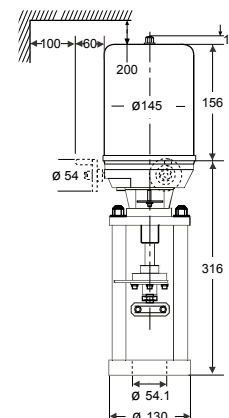
FA-3000

Floating and Proportional Control

The FA-3300 heavy duty series provides floating or proportional control and can be mounted with VG8000 flanged valves.

Features

- 24 VAC and 230 VAC power supply
- Floating and Proportional control
- Manual override
- Special clamp coupler
- Uses synchronous motor with calibrated pressure limit switches



Dimensions in mm

Ordering Codes	Supply Voltage (50/60Hz)	Action Control	Force	Stroke	Full Stroke Time	Protection Class	Power Consumption	Accessories Factory mounted				
FA-3300-7416	24 VAC	Floating	6000 N	42 mm (max 45)	150 s	IP65	37 VA	---				
FA-3303-7416								2 aux switches and 2 K Ω pot				
FA-3304-7416		135 Ω pot										
FA-3341-7416	230 VAC	Proportional					6000 N	42 mm (max 45)	150 s	IP65	42 VA	2 aux switches
FA-3300-7411		Floating										---
FA-3303-7411												2 aux switches and 2 K Ω pot
FA-3304-7411	135 Ω pot											

HVAC CONTROL PRODUCTS
Actuators

Non Spring Return Plant Valve Actuators

RA-3000

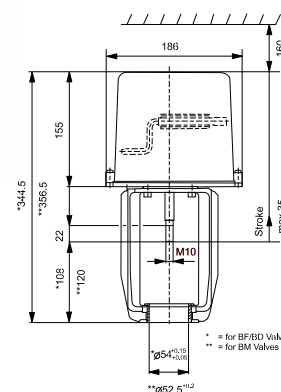
Floating and Proportional Control

The RA-3000 series synchronous motor-driven reversible actuators are available for 3-point (floating) or with electric positioner for 0...10 V control.

They feature factory calibrated pressure switches to provide specified close-off ratings. These actuators are available in three sizes with 1600 N, 1800 N and with 3000 N nominal force and can be used with JC flanged valves according to maximum close-off pressure ratings specified. Factory fitted options, such as 2kOhm feedback potentiometer, auxiliary switches and hand crank are available.

Features

- Uses synchronous motor with pressure switches
- Special clamp coupler quick-fit systems
- Models for 3-point and proportional 0...10 VDC control
- Positioner with adjustable starting point, span, and direct/reverse action
- Active 0...10 VDC position feedback on proportional models
- Optional auxiliary switches and feedback potentiometer available
- Optional hand crank



Dimensions in mm

	RA-3xxx-712x	RA-3xxx-722x	RA-3xxx-732x
H1	58 mm	66 mm	66 mm

Ordering Codes*	Hand Crank**	Actuator Force	Supply Voltage	Nominal Stroke	Protection Class
RA-30xx-7126	---	1600 N	24 V, 50/60 Hz	13 mm	IP 54
RA-31xx-7126	•		230 V, 50/60 Hz		
RA-30xx-7127	---				
RA-31xx-7127	•				
RA-30xx-7226	---	1800 N	24 V, 50/60 Hz	25 mm	
RA-31xx-7226	•		230 V, 50/60 Hz		
RA-30xx-7227	---				
RA-31xx-7227	•				
RA-30xx-7325	---	3000 N	24 V, 60 Hz	42 mm	
RA-31xx-7325	•		24 V, 50 Hz		
RA-30xx-7326	---				
RA-31xx-7326	•				
RA-30xx-7327	---		230 V, 50 Hz		
RA-31xx-7327	•				
RA-30xx-7328	---		230 V, 60 Hz		
RA-31xx-7328	•				

Note

- * : xx = 00 None
 03 2 auxiliary switches and 2 KW feedback potentiometer
 05 2 auxiliary switches and 135 Ω feedback potentiometer
 41 Built-in positioner 0...10 VDC and 2 auxiliary switches (only 24 VAC models)

HVAC CONTROL PRODUCTS

Actuators

Rotary Actuators for Ball Valves

VA9104-xGA-1S

(*Joventa BAD1.4 / BAD1 / BMD1.2*)

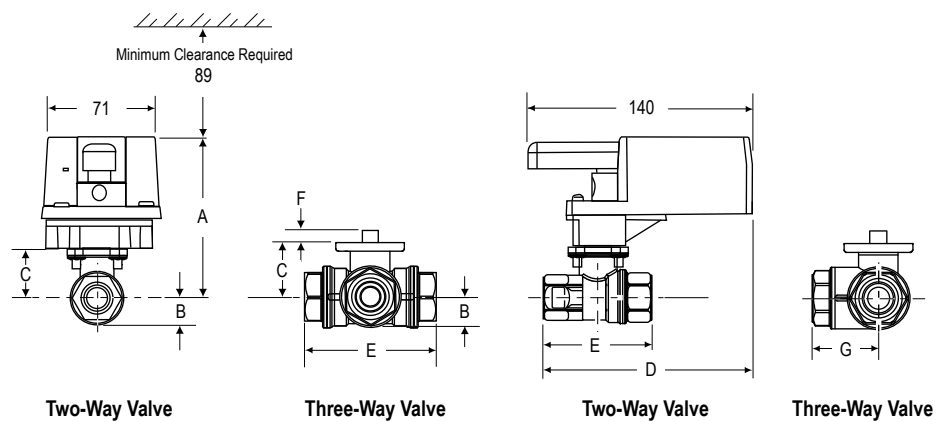
4 Nm, ON/OFF, Floating and Proportional Control

The electric Actuator series have been developed for operation of ball valves.

These synchronous, motor driven actuators are used to provide accurate positioning on VG1000 series DN15, DN20 and DN25 ball valves.

Features

- ON/OFF, Floating with Timeout and Proportional Control
- Load-independent runnin time
- Up to 5 actuators in parallel operation possible
- Manual release button
- 1.2 m PVC cable
- Selectable direction of rotation
- Automathic shut-off at end position



Dimensions in mm

Valve Size (DN)	A	B	C	D	E	F	G
DN15	98	17	31	129	64	9	32
DN20	98	17	31	133	71	9	36
DN25	100	19	33	141	87	9	43

Ordering Codes		Running Time	Control Signals	Supply Voltage (50/60Hz)
Johnson Controls	Joventa			
VA9104-AGA-1S	BAD1.4	72 s	Floating without Timeout	24 VAC
VA9104-IGA-1S	BAD1		ON/OFF and Floating with Timeout	
VA9104-IUA-1S	BAD2			AC 100 to 240 V
VA9104-GGA-1S	BMD1.2		Proportional 0(2)...10 VDC 0(4)...20 mA	24 VAC

HVAC CONTROL PRODUCTS

Actuators

Rotary Actuators for Ball Valves

M9108-xxx-5

(*Joventa BAS1 / BAS2 / BMS1.1*)

8 Nm, ON/OFF, Floating and Proportional Control

The M9108-xxx-5 electric actuator series have been developed for operating VG1000 series ball valves.

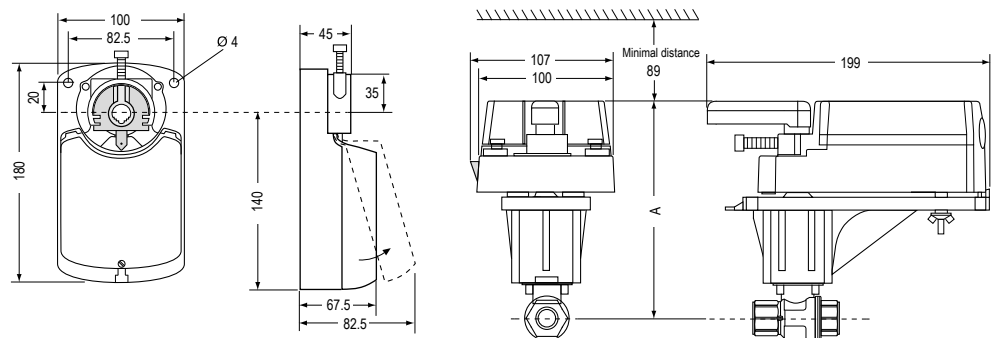
The actuators can be mounted onto the valves by the means of the M9000-525-5 linkage kit.

Features

- ON/OFF, Floating and Proportional Control
- Halogen-free connecting wire
- Load-independent running time
- Easy assembly on the console
- Selectable direction of rotation
- Manual adjustment by pushing the release button and turning the handle with position indicator (the release button does not automatically spring back into position)
- Automatic switching off in the limit positions



	A
DN15	160
DN20	160
DN25	162
DN32	173
DN40	177
DN50	182



Dimensions in mm

Ordering Codes		Torque	Running Time	Control Signals	2 x Auxiliary Contacts	Supply Voltage (50/60Hz)
Johnson Controls	Joventa					
M9108-AGA-5	BAS1	8 Nm	30 s	ON/OFF and Floating	---	AC/DC 24 V
M9108-AGC-5	BAS1.S				●	
M9108-ADA-5	BAS2				---	
M9108-ADC-5	BAS2.S			●	230 VDC	
M9108-GGA-5	BMS1.1			---		
M9108-GGC-5	BMS1.1S			●		AC/DC 24 V

HVAC CONTROL PRODUCTS

Actuators

Rotary Actuators for Butterfly Valves

VA-9070

68 - 2430 Nm, ON/OFF, Floating and Proportional Control

The actuator is specially developed for use with VFB butterfly valves in the HVAC industry.

These bidirectional actuators are direct mounted on VFB valves without any linkage.

A single VA-9070 provides 68, 226, 565, 735, 1470 and 2034 Nm torque depending on the model.

With a power supply of 24 Vac or 230 Vac the actuators can be controlled in 2-point, 3-point (floating) or proportional configuration.

Two isolated auxiliary switches and an electrical heater are standard in these series.

The protection class is IP65 to ensure a dust-proof and shower-proof from all angles.

An Hand operation is standard. When hand operation is active, a yellow ring is displayed and the actuator motor is not operative. the position indicator is clearly recognizable all around.

The opening and closing speed is independently adjustable in the proportional application.

Features

- Exact positioning ensures precise flow control
- Complete opening and closing from 100% to 0
- Range from 68 Nm to 2034 Nm
- Self-regulating heater as standard
- Construction optimized for operation with butterfly valves.
- Two isolated auxiliary switches as standard



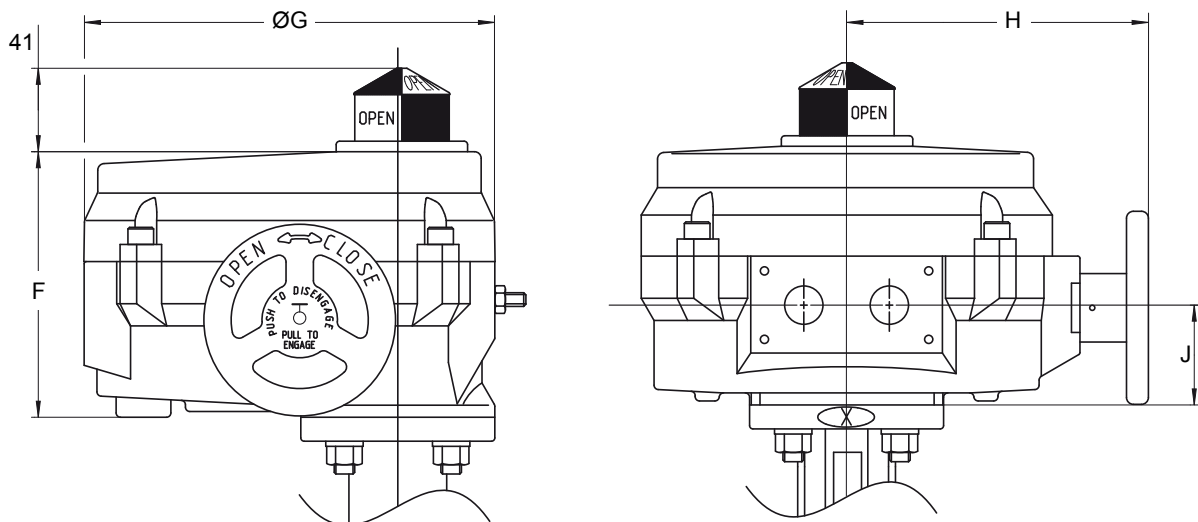
Ordering Codes

VA-907	X	-	X	X	
					Controls
				3	= Modulating Control
				4	= ON/OFF & Floating Control
					Power Supply
				1	= 24 VAC
				2	= 230 VAC
					Torque
				2	= 68 Nm Actuators
				5	= 226 Nm Actuators
				7	= 565 Nm Actuators
				8	= 735 Nm Actuators
				A	= 1470 Nm Actuators
				B	= 2034 Nm Actuators

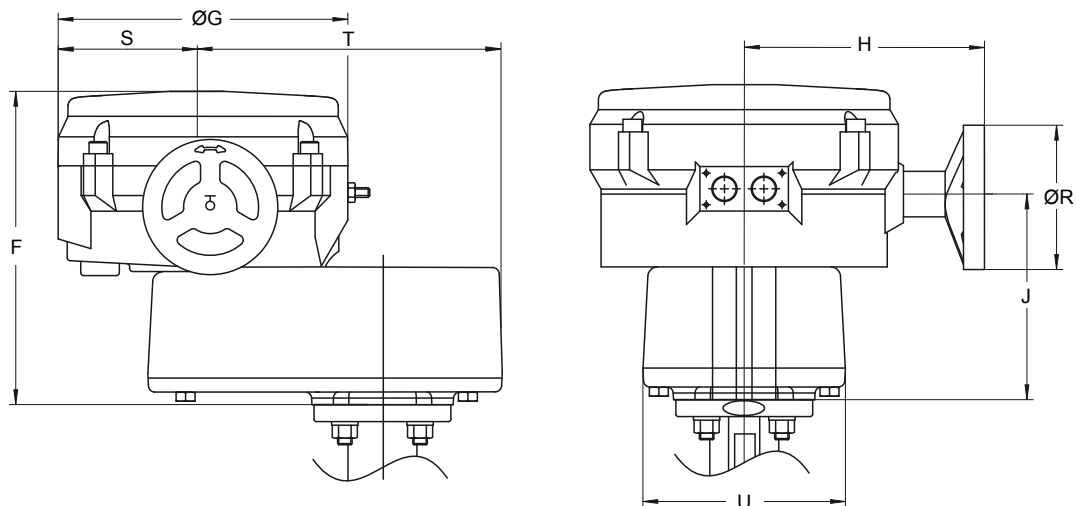
HVAC CONTROL PRODUCTS
Actuators

Rotary Actuators for Butterfly Valves
VA-9070

Two-Way VFB Series Actuated with VA-9072 / VA-9075 / VA-9077 / VA-9078 Actuators



Two-Way VFB Series Actuated with VA-907A / VA-907B Actuators



Two-Way VFB Series Actuated with VA-907x Actuator - Dimensions in mm

Actuator Model	F	G	H	J	S	T	R	U	Top Flange
VA-9072	130	191	142	48	-	-	-	-	F07
VA-9075	165	257	198	64	-	-	-	-	F07/F12
VA-9077 / VA-9078	183	307	241	74	-	-	-	-	F12/F16
VA-907A / VA-907B	317	307	241	206	155	323	305	203	F12/F16

HVAC CONTROL PRODUCTS

Actuators

Non Spring Return Plant Valve Actuators

VAP1000 - VAP3000

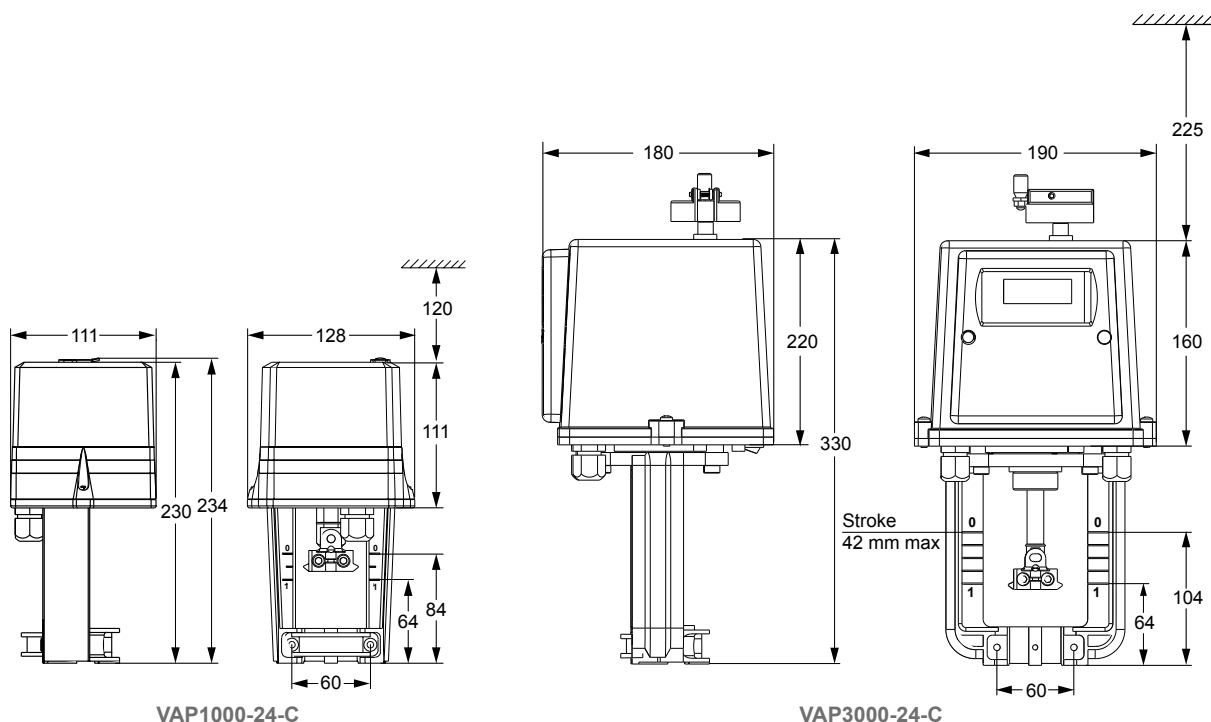
VAP Linear Actuators for VPA Pressure Independent Flanged Valves

The VAP Actuators have been specifically designed to drive the VPA Pressure Independent Valve.

They provide 1000N or 3000N according with the valve dimensions. The actuators are used to control the valve and to set the maximum desired flow.

Features

- Linear actuator with high control accuracy provides the equal percentage flow curve
- Actuator has manual function that allows for manual positioning of the valve
- The potentiometer on the actuator is use to set the maximum flow of the VPA Valve
- They provide 1000N or 3000N according with the valve dimensions.
- In the VAP300-24-C model, a led display gives several function information
- 0-10 Vdc or 4-20 mA setpoint and feedback



VAP1000-24-C

VAP3000-24-C

Dimensions in mm

Ordering Codes

Actuator Model	Force	Power Supply	Control Signal	Manual Override	Running speed	Weight (kg)
VAP1000-24-C	1000N	24 VAC	0(2)-10V,0(4)-20mA	Yes	3.85s/mm (50Hz)	1.7
VAP3000-24-C	3000N	24 VAC	0(2)-10V,0(4)-20mA	Yes	3.2s/mm (50Hz)	5.2

HVAC CONTROL PRODUCTS

Actuators

Spring Return Plant Valve Actuators

VA7820 and VA7830

Floating and Proportional Controls

The VA78x0 spring return actuator with 1000 N thrust for valves in heating, ventilation and air conditioning applications is available for floating (3-point) control or proportional control.

All models have manual override as standard and provide stroke capabilities of 7 mm to 25 mm.

Proportional models are self-calibrating.

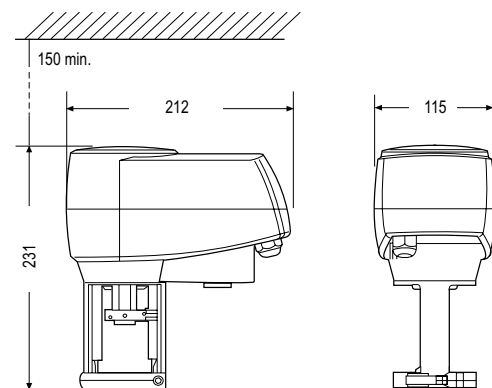
The actuator is intended for use with Johnson Controls VG7000 and VGS800 threaded valves as well as VG9000, VG8000 and VG8300 flanged valves. All valves should be fitted in accordance with the maximum close-off pressure ratings specified.

Valve-actuators can be ordered as separate units or as a factory fitted valve / actuator combinations.



Features

- Proportional actuators are self calibrating
- All models can also be used as floating and ON/OFF actuators
- Force controlled motor shut-off
- Manual override as standard
- IP54 enclosure protection
- Delivered with fitted 1.5 m cable and wire terminals
- Status LED
- Control-Signal failure - stem to pre-determined position
- Stroke position indicator
- Spring return functions



Dimensions in mm

Ordering Codes	Supply Voltage (50/60Hz)	Action Control	Force	Stroke	Full Stroke Time	Protection Class	Power Consumption	Spring Return Action	Accessories Factory mounted
VA7820-GGA-xx	24 VAC	ON/OFF, Floating or Proportional	1000 N	25 mm	150 s (selectable 75 s)	IP54	11 VA	Actuator stem retracts	---
VA7820-GGC-xx								2 aux switches	
VA7830-GGA-xx								---	
VA7830-GGC-xx								2 aux switches	

Note

- * : **xx** = **11** Actuator with threaded coupler for VG7000 Valves
12 Actuator with clamp coupler for VG8000, VG9000, VGS800 Valves

HVAC CONTROL PRODUCTS

Actuators

Spring Return Plant Valve Actuators

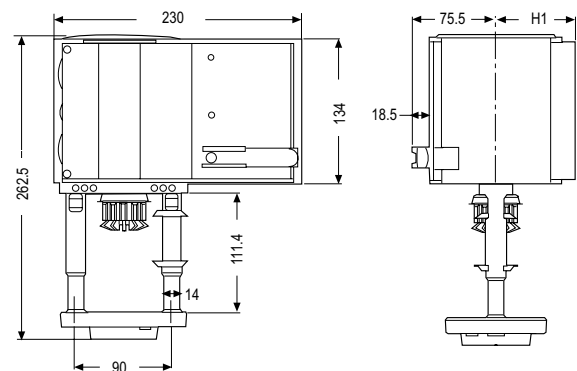
VA1000

Floating and Proportional Controls

The VA1000 valve actuators are used to control valves in HVAC systems. They are of modular construction so that the required type of control signal is achieved simply by fitting a module with the required function in-situ. It can be mounted onto VG8000, VG8300 and VG9000 series valves.

Features

- 24 VAC and 230 VAC power supply
- Floating and Proportional control
- Manual override
- Automatic stem coupling
- Actuator fixed to valve with one ring nut
- Self adjusting, automatic stroke adjustment, calibrated pressure control at the end positions
- 2 aux. switches, feedback potentiometer and split range unit available
- IP66
- Selectable characteristic curve
- Selectable running time



Dimensions in mm

	VA1125-GGA-1	VA1220-GGA-1 & VA1420-GGA-1
H1	60 mm	73 mm

Ordering Codes	24V Actuators	Power Consumption	Protection Class	Nominal Stroke
VA1220-GGA-1	2000N; Spring return retracts	17 VA	IP66	49 mm
VA1420-GGA-1	2000N; Spring return extends	17 VA		

Accessories modules for in-situ installation

VA1000-M230N	AC 230V module
VA1000-M100N	AC 100V module
VA1000-P2	2 K Ω feedback potentiometer
VA1000-S2	2 SPDT aux. switches
VA1000-SRU	Split range unit module for proportional actuators only
VA1000-EP	Extension kit for applications with temperatures greater than 140°C up to 200°C

HVAC CONTROL PRODUCTS
Actuators

Spring Return Plant Valve Actuators

FA-2000

Floating and Proportional Control

The FA-2000 series electric actuators are available for 3-point control or with electronic positioner for 0...10 V or 0...20 mA control. It provides a fully variable valve aperture, a power failure spring return safety mechanism and an electrically operated manual override. Three models of the FA-2000 are available.

The FA-22 ("failsafe" position down = stem fully extended) and FA-25 ("failsafe" position up = stem fully retracted):

this model pair has a 25 mm stroke and a minimum of 2400 N thrust.

The FA-23 ("failsafe" position down) and FA-26 ("failsafe" position up):

this model pair has a 42 mm stroke of and a minimum thrust of 2200 N.

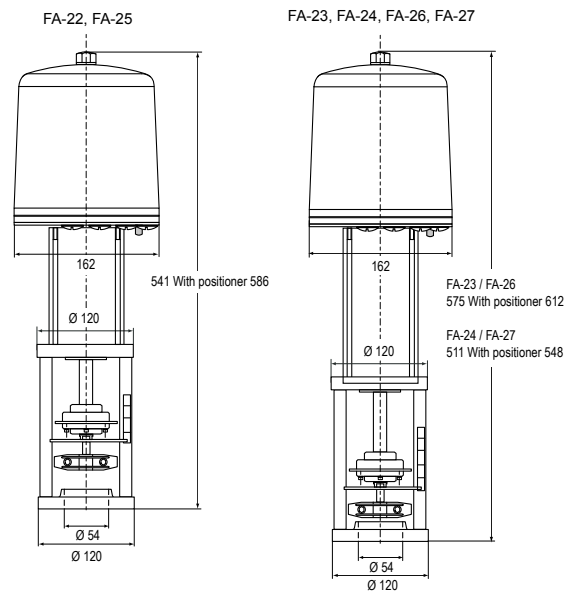
The FA-24 ("failsafe" position down) and FA-27 ("failsafe" position up):

this model pair has a stroke of 13 mm and 2000 N minimum thrust. The actuator can be combined with VG8000 (H, N, V) series in accordance with the maximum close-off pressure ratings specified.

The FA-2000, when delivered as a single unit, is pre-set to facilitate installation with minimum adjustment; it is also available with a variety of options such as auxiliary switches and feedback potentiometers

Features

- Power failure mechanism (Spring Return)
- Visible calibration ring on stem coupling
- Positioner with adjustable starting point, span and direct/reverse action
- Electrically operated manual override
- Quick-fit coupling clamp



Dimensions in mm

Ordering Codes *	Supply Voltage (50 Hz)	Action Control	Spring Return Function	Nominal Thrust	Nominal Stroke	Protection Class	Power Consumption	Emergency Shut of speed
FA-22xx-7516	24 VAC	Floating and Proportional	Stem fully extended	2.4 kN	25 mm	IP54	6.1 VA	≤ 81
FA-25xx-7516			Stem fully retracted					
FA-23xx-7416			Stem fully extended	2.2 kN	42 mm			≤ 201
FA-26xx-7416			Stem fully retracted					
FA-24xx-7116			Stem fully extended	2 kN	13 mm			≤ 51
FA-27xx-7116			Stem fully retracted					

Note

* xx = 00 None

01 2 Auxiliary switches

02 2 K Ω feedback potentiometer

03 2 K Ω feedback potentiometer and 2 auxiliary switches

04 135 Ω feedback potentiometer

40 Built-in electronic positioner 0...10 V / 0(4)...20 mA

41 Built-in electronic positioner 0...10 V / 0(4)...20 mA and 2 auxiliary switches

HVAC CONTROL PRODUCTS

Actuators

Rotary Actuators for Ball Valves

VA9203

(*Joventa BxFx.03SZ*)

3 Nm, ON/OFF, Floating and Proportional Control

The VA9203 Series Electric Spring Return Actuators are direct-mount actuators.

These bidirectional actuators are used to provide accurate positioning on Johnson Controls® VG1000 Series DN15 up to DN25 ball valves in Heating, Ventilating and Air Conditioning (HVAC) applications.

One Integral line voltage auxiliary switch, available only on the VA9203-xxB-1(Z) models, indicate end-stop position, or perform switching functions within the selected rotation range.

A graduated scale from 0% to 100% and a position indicator provide visual indication of the valve's opening.

When power fails during service, the mechanical spring return system open or close the valve ports.

The series includes the following control options:

ON/OFF, 24 V AC/DC, 100 to 240 VAC power

ON/OFF and Floating Point, 24 V AC/DC power

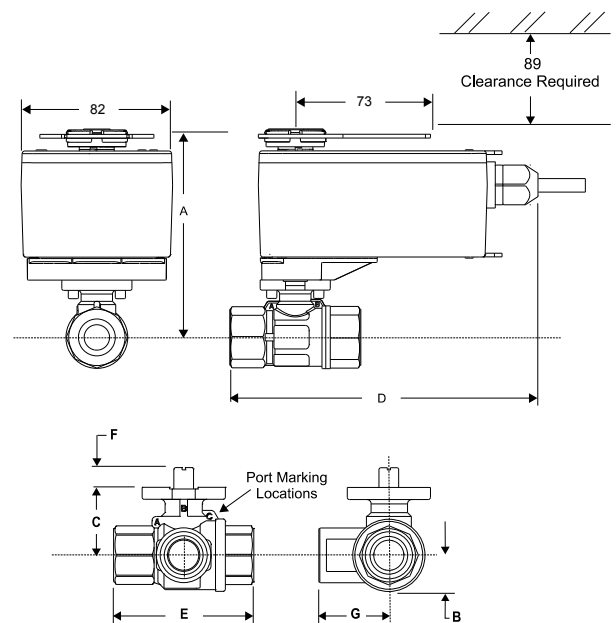
Proportional, 24 V AC/DC power, for 0(2) to 10 VDC or 0(4) to 20 mA Control.

Features

- 3 Nm Rated Torque
- Mechanical Spring Return System
- Direct-Coupled Design
- Reversible Mounting
- Rugged IP54 Rated Enclosure
- Electronic Stall Detection
- Double-Insulated Construction
- Microprocessor Controlled Brushless DC Motor (-AGx and -GGx Models)
- External Mode Selection Switch (-AGx and -GGx Models)
- Integral Cables with Colored and Numbered Conductors
- Optional Integrated Auxiliary Switch
- Override Control (Proportional Models Only)
- UL, CE, and C-Tick Compliance
- Manufacturing under International Standards Organization (ISO) 9001 Quality Control Standards.



VA9203 mounted on VG1000



Dimensions in mm

Valve Size mm (DN)	A	B	C	D	E	F	G
DN15	117	17	31	167	67	9	33
DN20	117	17	31	171	75	9	38
DN25	119	19	33	180	92	9	46

HVAC CONTROL PRODUCTS Actuators

Rotary Actuators for Ball Valves

VA9203

(*Joventa BxFx.03SZ*)

Ordering Codes		
Johnson Controls	Joventa	Description
VA9203-GGA-1Z	BMF1.03Z	3 Nm Spring Return Actuator for Valves, Proportional, 24 V AC/DC
VA9203-GGB-1Z	BMF1.03SZ	3 Nm Spring Return Actuator for Valves, Proportional, 24 V AC/DC, 1 Switch
VA9203-AGA-1Z	BBF1.03Z	3 Nm Spring Return Actuator for Valves, Floating & ON/OFF, 24 V AC/DC
VA9203-AGB-1Z	BBF1.03SZ	3 Nm Spring Return Actuator for Valves, Floating & ON/OFF, 24 V AC/DC, 1 Switch
VA9203-BGA-1	BAF1.03	3 Nm Spring Return Actuator for Valves, ON/OFF, 24 V AC/DC
VA9203-BGB-1	BAF1.03S	3 Nm Spring Return Actuator for Valves, ON/OFF, 24 V AC/DC, 1 Switch
VA9203-BUA-1	BAF2.03	3 Nm Spring Return Actuator for Valves, ON/OFF, 100 to 230 V AC
VA9203-BUB-1	BAF2.03S	3 Nm Spring Return Actuator for Valves, ON/OFF, 100 to 230 V AC, 1 Switch

Accessories (order separately)

Ordering Codes	Description
M9000-200	Commissioning Tool that Provides a Control Signal to Drive 24 V On/Off, Floating, Proportional and/or Resistive Electric Actuators
M9000-560	Ball Valve Linkage Kit for applying M9203 and M9208 Series Actuators to VG1000 Series Valves (quantity 1)
M9000-561	Thermal Barrier Extends M(VA)9104, M(VA)9203 and M(VA)9208 Series Electric Spring Return Actuator applications to include low pressure steam (quantity 1)
M9000-341	Weathershield Kit for VG1000 Series Ball Valve application of M(VA)9104, M(VA)9203 and M(VA)9208 Series Electric Spring Return Actuators (quantity 1)
M9000-607	Position Indicator for VG1000 Series Ball Valve Applications (Quantity 5)

HVAC CONTROL PRODUCTS

Actuators

Rotary Actuators for Ball Valves

VA9208

(Joventa BxFx.08S)

8 Nm, ON/OFF, Floating and Proportional Control

The VA9208 Series Electric Spring Return Actuators are direct-mount actuators.

These bidirectional actuators are used to provide accurate positioning on Johnson Controls® VG1000 Series DN32 up to DN50 Ball Valves in Heating, Ventilating and Air Conditioning (HVAC) applications.

Two Integral line voltage auxiliary switches are available only on the VA9208-xxC-1 models, indicate end-stop position, or perform switching functions within the selected rotation range.

A graduated scale from 0% to 100% and a position indicator provide visual indication of the valve's opening.

When power fails during service, the mechanical spring return system open or close the valve ports.

The series includes the following control options:

ON/OFF, 24 V AC/DC, 230 V AC power

ON/OFF and Floating Point, 24 V AC/DC power

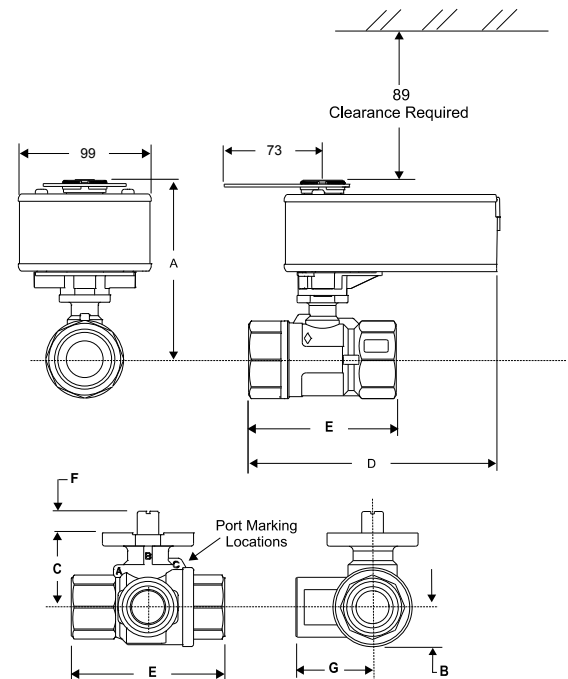
Proportional, 24 V AC/DC power, for 0(2) to 10 VDC or 0(4) to 20 mA Control

Features

- 8 Nm Rated Torque
- Mechanical Spring Return System
- Direct-Coupled Design
- Reversible Mounting
- Rugged IP54 Rated Enclosure
- Electronic Stall Detection
- Double-Insulated Construction
- Microprocessor Controlled Brushless DC Motor (-AGx and -GGx Models)
- External Mode Selection Switch (-AGx and -GGx Models)
- Integral Cables with Colored and Numbered Conductors
- Optional Integrated Auxiliary Switches
- UL, CE, and C-Tick Compliance
- Manufacturing under International Standards Organization (ISO) 9001 Quality Control Standards.



VA9208 mounted on VG1000



Dimensions in mm

Valve Size mm (DN)	A	B	C	D	E	F	G
DN32	195	26	44	184	109	9	54
DN40	200	29	48	189	119	9	59
DN50	204	37	53	195	139	9	74

Rotary Actuators for Ball Valves

VA9208

(*Joventa BxFx.08S*)

Ordering Codes		
Johnson Controls	Joventa	Description
VA9208-GGA-1	BMF1.08	8 Nm Spring Return Actuator for Valves, Proportional, 24 V AC/DC
VA9208-GGC-1	BMF1.08S	8 Nm Spring Return Actuator for Valves, Proportional, 24 V AC/DC, 2 Switch
VA9208-AGA-1	BBF1.08	8 Nm Spring Return Actuator for Valves, Floating & ON/OFF, 24 V AC/DC
VA9208-AGC-1	BBF1.08S	8 Nm Spring Return Actuator for Valves, Floating & ON/OFF, 24 V AC/DC, 2 Switch
VA9208-BGA-1	BAF1.08	8 Nm Spring Return Actuator for Valves, ON/OFF, 24 V AC/DC
VA9208-BGC-1	BAF1.08S	8 Nm Spring Return Actuator for Valves, ON/OFF, 24 V AC/DC, 2 Switch
VA9208-BDA-1	BAF2.08	8 Nm Spring Return Actuator for Valves, ON/OFF, 230 V AC
VA9208-BDC-1	BAF2.08S	8 Nm Spring Return Actuator for Valves, ON/OFF, 230 V AC, 2 Switch

Accessories (order separately)

Ordering Codes	Description
M9000-200	Commissioning Tool that Provides a Control Signal to Drive 24 V ON/OFF, Floating, Proportional and/or Resistive Electric Actuators
M9000-560	Ball Valve Linkage Kit for applying M9203 and M9208 Series Actuators to VG1000 Series Valves (quantity 1)
M9000-561	Thermal Barrier Extends M(VA)9104, M(VA)9203 and M(VA)9208 Series Electric Spring Return Actuator applications to include low pressure steam (quantity 1)
M9000-341	Weathershield Kit for VG1000 Series Ball Valve application of M(VA)9104, M(VA)9203 and M(VA)9208 Series Electric Spring Return Actuators (quantity 1)
M9000-607	Position Indicator for VG1000 Series Ball Valve Applications (quantity 5)