



JOVENTA Products Catalogue 2019

JOVENTA



JOVENTA



TERMINAL UNIT VALVE ACTUATORS

JV-7480

MOTORIZED FLOATING AND PROPORTIONAL CONTROL **1**

NON-SPRING RETURN PLANT VALVE ACTUATORS

BAD / BMD

4 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL
ROTARY ACTUATORS FOR BALL VALVES **3**

BAS / BMS

8, 10, 20 AND 35 Nm, ON/OFF, FLOATING
AND PROPORTIONAL CONTROL ROTARY ACTUATORS
FOR BALL VALVES **5**

SPRING RETURN PLANT VALVE ACTUATORS

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3 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL
ROTARY ACTUATORS FOR BALL VALVES **7**

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STANDARD SERIES

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WITH STAINLESS STEEL BALL **29**

TERMINAL UNIT VALVE ACTUATORS

ACTUATORS

JV-7480

MOTORIZED FLOATING AND PROPORTIONAL CONTROL

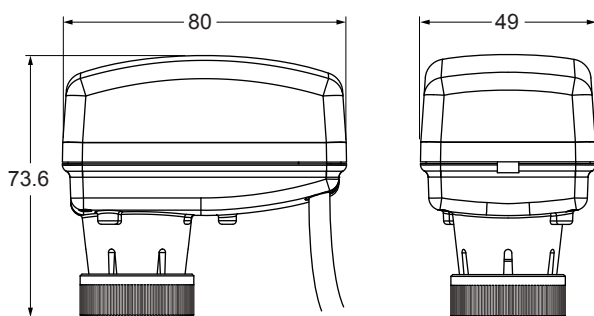
The JV-748x series provides floating or proportional control in HVAC applications. The compact design of this actuator makes it suitable for installation in confined spaces, such as fan coil, chilled ceiling, manifolds, etc.

The JV-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 M30x1.5
- Auto stroke detection (Proportional model only)
- Configurable to direct and reverse action (Proportional model only)
- Configurable analog inputs (Proportional model only)
- Max mechanical stroke 6.3 mm

DIMENSIONS (in mm)





JV-7480

ORDERING INFORMATION

CODES	CONTROL TYPE	POWER SUPPLY	RUNNING TIME (s/mm)	NOMINAL FORCE (N)	FACTORY STROKE CONFIGURATION	CABLE LENGTH (m)	MOUNTING THREAD NUT	UPPER MECHANICAL END STROKE
JV-7480-0001	Floating	24 VAC	13	120	---	1.5 (PVC)	M30x1,5	16.3
JV-7480-0003		230 VAC						
JV-7482-8201	Proportional	24 VAC/VDC	8	160	Auto stroke detection	2 (Halogen Free)		

NON-SPRING RETURN PLANT VALVE ACTUATORS

ACTUATORS

BAD / BMD

4 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL ROTARY ACTUATORS FOR BALL VALVES

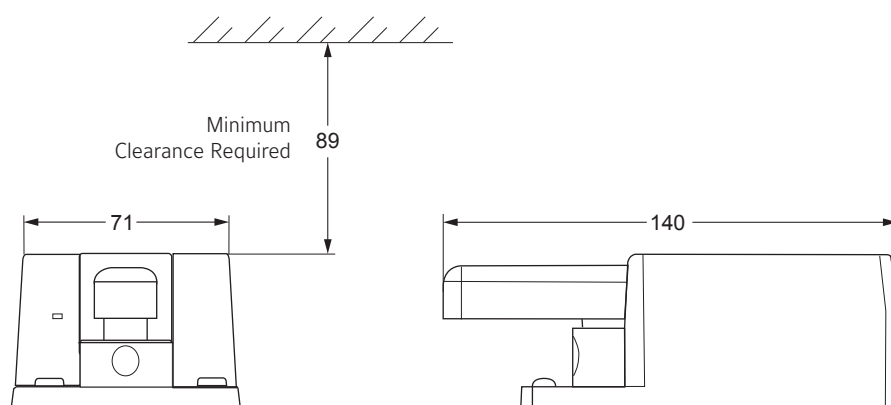
The Electric Actuator Series have been developed for operation of ball valves.

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

FEATURES

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

DIMENSIONS (in mm)





BAD / BMD

ORDERING INFORMATION

CODES	RUNNING TIME (s/mm)	CONTROL SIGNALS	SUPPLY VOLTAGE (50/60 Hz)
BAD1.4	72	Floating without timeout	24 VAC
BAD1		ON/OFF and Floating with timeout	
BAD2			100 to 240 VAC
BMD1.2		Proportional 0(2)...10 VDC 0(4)...20 mA	24 VAC

NON-SPRING RETURN PLANT VALVE ACTUATORS

ACTUATORS

BAS / BMS

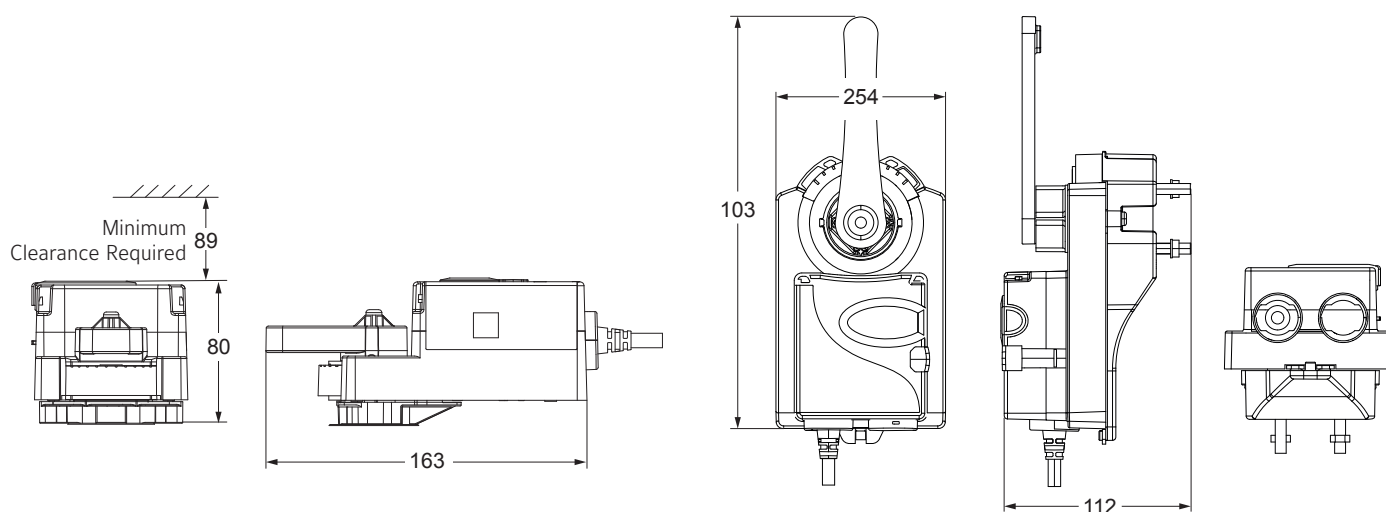
8, 10, 20 AND 35 Nm, ON/OFF, FLOATING
AND PROPORTIONAL CONTROL ROTARY ACTUATORS
FOR BALL VALVES

The Non Spring Return Actuators for Ball Valves are used to provide accurate positioning on Joventa JVx05 Series DN15 up to DN150 ball valves in Heating, Ventilating and Air Conditioning (HVAC) applications.

FEATURES

- Automatic models with signal input detection model: ON/OFF, Floating and Proportional control
- High speed actuator models
- Line voltage models
- Optional auxiliary switch & potentiometer feedback
- Direct-Coupled Design
- Rugged IP54 Rated Enclosure
- Electronic stall detection
- Microprocessor-controlled Brushless DC Motor

DIMENSIONS (in mm)



NON-SPRING RETURN PLANT VALVE ACTUATORS



BAS / BMS

ORDERING INFORMATION

CODES	TORQUE (Nm)	RUNNING TIME (s/mm)	CONTROL SIGNALS	SUPPLY VOLTAGE (50/60 Hz)
BAS1.08Z	8	8	ON/OFF and Floating	24 VAC/DC
* BAS2.08Z				100 to 240 VAC
BAS2.10	10	35	ON/OFF and Floating	100 to 240 VAC
* BMS2.10			Proportional	
BMS1.10			ON/OFF, Floating and Proportional	24 VAC/DC
* BAS1.16Z	16	16	ON/OFF and Floating	24 VAC/DC
* BAS2.16Z				100 to 240 VAC
* BAS2.20	20	90	ON/OFF and Floating	100 to 240 VAC
* BMS2.20			Proportional	
* BMS1.20			ON/OFF, Floating and Proportional	24 VAC/DC
* BAS2.35	35	150	ON/OFF and Floating	100 to 240 VAC
* BMS2.35			Proportional	
* BMS1.35			ON/OFF, Floating and Proportional	24 VAC/DC

Note

* Available in Later Spring 2019

ACCESSORIES (ORDER SEPARATELY)

CODES	DESCRIPTION
M9000-342	NEMA 4X, IP66 Weathershield (quantity 1)
M9000-561	Thermal Barrier Kit for low pressure steam application (quantity 1)
M9000-606	Position indicator (quantity 5)
M9300-1	Auxiliary Switch Kit (one single-pole, double-throw)
M9300-2	Auxiliary Switch Kit (two single-pole, double-throw)
M9300-100	Threaded Conduit Adapters for 12.7 mm electrician's fittings (quantity 5)
M9300-140	External Feedback Potentiometer 140k Ohm
M9300-1K	External Feedback Potentiometer 1k Ohm
M9300-2K	External Feedback Potentiometer 2k Ohm
M9300-10K	External Feedback Potentiometer 10k Ohm
M9310-500	Ball Valve Linkage Kit for applying BAS-BMS Series Electric Actuators to JVx05 Series Valves (quantity 1)

SPRING RETURN PLANT VALVE ACTUATORS

ACTUATORS

BxFx.03

3 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL ROTARY ACTUATORS FOR BALL VALVES

The BxFx.03(S)(Z) Series Electric Spring Return Actuators are direct-mount actuators.

These bidirectional actuators are used to provide accurate positioning on JVx05 Series DN15 up to DN25 all valves in Heating, Ventilating and Air Conditioning (HVAC) applications.

One Integral line voltage auxiliary switch, available only on the BxFx.03S(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 VAC/DC, 100 to 240 VAC power
- ON/OFF and Floating control, 24 VAC/DC power
- Proportional, 24 VAC/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 (BBF1.03Z and BMF1.03Z models)
- External mode selection switch (BBF1.03Z and BMF1.03Z 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

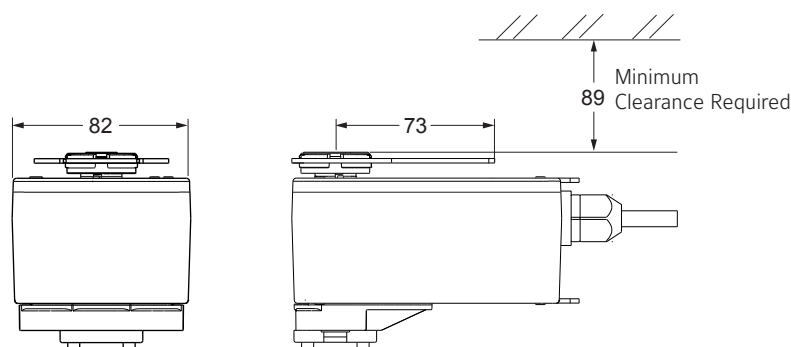


SPRING RETURN PLANT VALVE ACTUATORS



BxPx.03

DIMENSIONS (in mm)



ORDERING INFORMATION

		RUNNING TIME (s/mm)			SUPPLY VOLTAGE (50/60 Hz)	1
CODES	TORQUE (Nm)	Motor	Spring	CONTROL SIGNALS		AUXILIARY SWITCH
BMF1.03Z	3	90	12...17	Proportional	24 VAC/DC	---
BMF1.03SZ						■
BBF1.03Z				ON/OFF and Floating		---
BBF1.03SZ						■
BAF1.03		53...71	19...23	ON/OFF	100 to 230 VAC	---
BAF1.03S						■
BAF2.03						---
BAF2.03S						■

ACCESSORIES (ORDER SEPARATELY)

CODES	DESCRIPTION
M9000-560	Ball Valve Linkage Kit for applying 3 Nm and 8 Nm Series Actuators to JVx05 Series Valves (quantity 1)
M9000-561	Thermal Barrier Extends 4 Nm, 3 Nm and 8 Nm Series Electric Spring Return Actuator applications to include low pressure steam (quantity 1)
M9000-342	Weathershield kit for JVx05 series ball valve application of 4 Nm, 3 Nm and 8 Nm Series Electric Spring Return Actuators (quantity 1)
M9000-607	Position indicator for JVx05 series ball valve applications (quantity 5)

SPRING RETURN PLANT VALVE ACTUATORS

ACTUATORS

BxFx.08S

8 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL ROTARY ACTUATORS FOR BALL VALVES

The BxFx.08(S) Series Electric Spring Return Actuators are direct-mount actuators.

These bidirectional actuators are used to provide accurate positioning on JVx05 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 BxFx.08S 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.

- ON/OFF, 24 VAC/DC, 230 VAC power
- ON/OFF and Floating control, 24 VAC/DC power
- Proportional, 24 VAC/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 (BBF1.08 and BMF1.08 models)
- External mode selection switch (BBF1.08 and BMF1.08 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

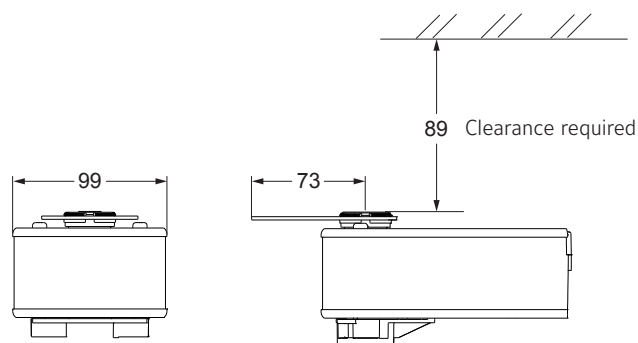


SPRING RETURN PLANT VALVE ACTUATORS



BxPx.08S

DIMENSIONS (in mm)



ORDERING INFORMATION

	TORQUE (Nm)	RUNNING TIME (s/mm)		CONTROL SIGNALS	SUPPLY VOLTAGE (50/60 Hz)	2
CODES		Motor	Spring			AUXILIARY SWITCH
BMF1.08	8	150	17...25	Proportional	24 VAC/DC	---
BMF1.08S						■
BBF1.08				ON/OFF and Floating		---
BBF1.08S						■
BAF1.08		53...71	13...26	ON/OFF	230 VAC	---
BAF1.08S						■
BAF2.08						---
BAF2.08S						■

ACCESSORIES (ORDER SEPARATELY)

CODES	DESCRIPTION
M9000-560	Ball Valve Linkage Kit for applying 3 Nm and 8 Nm Series Actuators to JVx05 Series Valves (quantity 1)
M9000-561	Thermal Barrier Extends 4 Nm, 3 Nm and 8 Nm Series Electric Spring Return Actuator applications to include low pressure steam (quantity 1)
M9000-342	Weathershield Kit for JVx05 Series Ball Valve application of 4 Nm, 3 Nm and 8 Nm Series Electric Spring Return Actuators (quantity 1)
M9000-607	Position Indicator for JVx05 Series Ball Valve Applications (quantity 5)

NON-SPRING RETURN DAMPER ACTUATORS

ACTUATORS

DAB / DAD / DMD

2 AND 4 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL

The Small family Electric Damper Actuator Series have been developed to operate small and medium air dampers in Ventilation and Air Conditioning Systems.

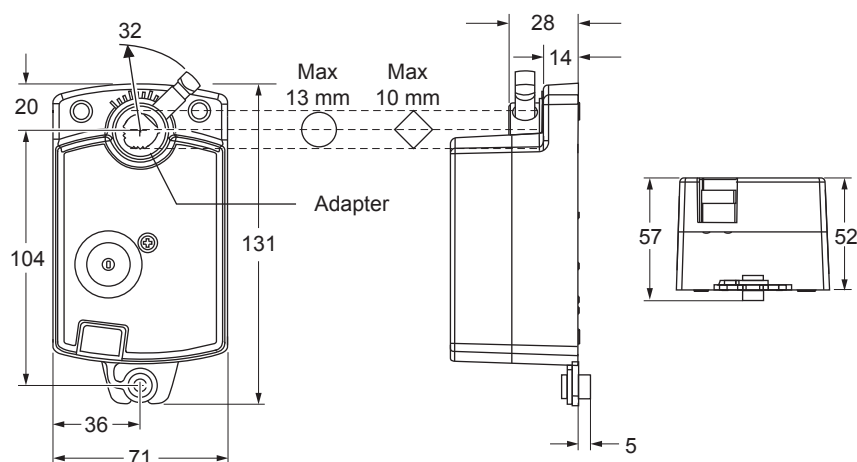
The compact design make this actuator highly versatile.



FEATURES

- Floating, ON/OFF and Proportional control
- Load-independent running time
- Up to 5 actuators in parallel operation possible
- Actuators available with PVC cable or with plug-in terminal block connection
- Simple direct mounting with universal adapter for fitting to \varnothing 8...13 mm or with 8...10 mm square shaft; 45 mm minimum shaft length
- Selectable direction of rotation
- Manual release button

DIMENSIONS (in mm)



NON-SPRING RETURN DAMPER ACTUATORS



DAB / DAD / DMD

ORDERING INFORMATION

CODES	TORQUE (Nm)	RUNNING TIME (s/mm)	CONTROL SIGNALS	SUPPLY VOLTAGE (50/60 Hz)	CONNECTION
DAB1.4	2	36	Floating without timeout	24 VAC	PVC-cable
DAB1.4C					Terminal block
DAB1			ON/OFF and Floating with timeout		PVC-cable
DAB1C					Terminal block
DAD1.4	4	72	Floating without timeout		PVC-cable
DAD1.4C					Terminal block
DAD1			ON/OFF and Floating with timeout		PVC-cable
DAD1C					Terminal block
DAD2			AC 100 to 240 V	PVC-cable	
DMD1.2			Proportional 0...10 VDC	24 VAC	PVC-cable
DMD1.2C					Terminal block

NON-SPRING RETURN DAMPER ACTUATORS

ACTUATORS

DAN / DAN2 / DMN

4 Nm, ON/OFF, FLOATING AND PROPORTIONAL
CONTROL

The Silence Electric Damper Actuator Series have been developed to operate small and medium air dampers in Ventilation and Air Conditioning Systems. The compact design and universal adapter fitted with limitation of rotation angle make this actuator highly versatile.

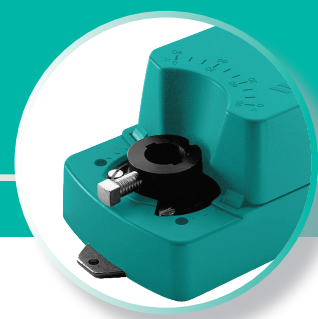
A key feature of the design is the Johnson Controls® stem adapter which also incorporates angle-of-rotation limiting and position indication.

FEATURES

- ON/OFF, Floating and Proportional control
- Load-independent running time
- Up to 5 actuators in parallel operation possible
- Plug-in terminal block connection
- Simple direct mounting with universal adapter for fitting to Ø 6 mm to 16 mm shaft or with Z01DN adapter kit for 8, 10, 11 and 12 mm square shaft; 45 mm min shaft length
- Selectable direction of rotation
- Limitation of rotation angle
- Manual release button
- 2 adjustable auxiliary switches
- Automatic shut-off at end position (overload switch)
- Energy saving at end positions
- Actuators available with 1 m halogen-free cable

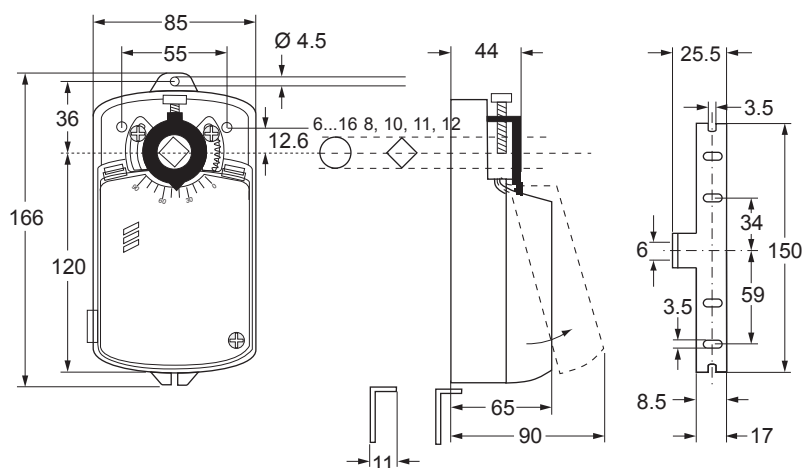


NON-SPRING RETURN DAMPER ACTUATORS



DAN / DAN2 / DMN

DIMENSIONS (in mm)



ORDERING INFORMATION

CODES	TORQUE (Nm)	RUNNING TIME (s/mm)	2 ADJUSTABLE AUXILIARY CONTACTS	SUPPLY VOLTAGE (50/60 Hz)
DAN1N	4	35	---	24 VAC/DC
DAN1.SN			■	
DAN2N			---	230 VAC
DAN2.SN			■	
DAN5N			---	48 VDC
DAN5.SN			■	
DAN2.C			---	230 VAC
DAN2.SC			■	
DMN1.2N			---	24 VAC/DC
DMN5.2N			---	48 VAC/DC

NON-SPRING RETURN DAMPER ACTUATORS

ACTUATORS

DAX / DMx

8, 10, 20 AND 35 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL

The Standard Series of Electric Non-Spring Return Actuators provide control of dampers in HVAC Systems with 8, 10, 20 and 35 Nm rated torque.

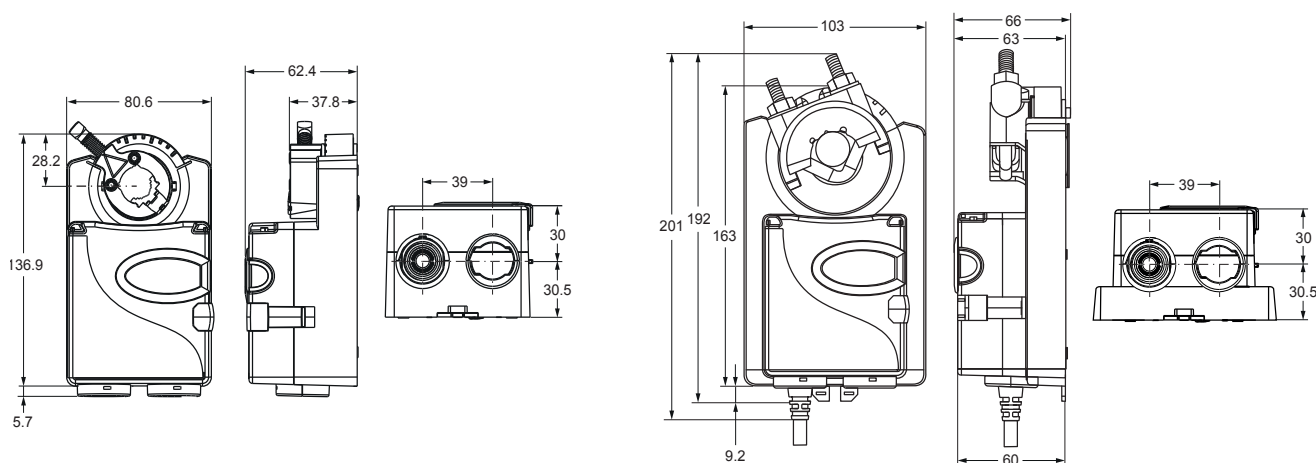
These bidirectional actuators do not require a damper linkage and are easily installed on round shafts or square shafts.

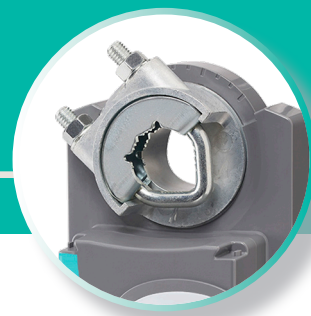
An optional line voltage auxiliary switch kits can be field installed to indicate an end-stop position or perform switching functions within the selected rotation range.

FEATURES

- Automatic signal input detection model: ON/OFF, Floating and Proportional
- High speed actuator model
- Optional auxiliary switch and potentiometer feedback
- 8, 10, 20 and 35 Nm rated torque
- Self-calibrating to adjust stroke
- Electronic stall detection
- Microprocessor-controlled Brushless DC motor

DIMENSIONS (in mm)





DAx / DMx

ORDERING INFORMATION

CODES	TORQUE (Nm)	RUNNING TIME (s/mm)	CONTROL SIGNALS	SUPPLY VOLTAGE (50/60 Hz)
DA1.08Z	8	8	ON/OFF and Floating	100 to 240 VAC
* DA2.08Z				24 VAC/DC
DA2.10	10	35	ON/OFF and Floating	100 to 240 VAC
* DM2.10			Proportional	
DM1.10			ON/OFF, Floating and Proportional	24 VAC/DC
* DA1.16Z	16	16	ON/OFF and Floating	24 VAC/DC
* DA2.16Z				100 to 240 VAC
DA2.20	20	90	ON/OFF and Floating	100 to 240 VAC
* DM2.20			Proportional	
DM1.20			ON/OFF, Floating and Proportional	24 VAC/DC
DA2.35	35	150	ON/OFF and Floating	100 to 240 VAC
* DM2.35			Proportional	
DM1.35			ON/OFF, Floating and Proportional	24 VAC/DC

Note

* Available in Later Spring 2019

ACCESSORIES (ORDER SEPARATELY)

CODES	DESCRIPTION
M9000-322	NEMA 4, IP66 Weathershield Kit for damper application of DxD, DM1.10, DxFx.03 and DxFx.08 Series Electric Actuators (quantity 1)
M9000-323	NEMA 4X, IP66 Weathershield kit for damper application of DMx.20 and DMx.35 series electric actuators (quantity 1)
M9000-400	Jackshaft linkage adapter kit (quantity 1)
M9000-561	Thermal Barrier Kit. Extends the BxD, BMS1.10, BxF.03 and BxF.08 Series Electric Non-Spring Return Actuators applications to include low pressure steam (quantity 1)
M9000-604	Replacement Anti-Rotation Bracket Kit for DM1.10, DxFx.03, DxFx.08, DxFx.20 Series Electric Actuators
M9000-606	Position indicator for Auxiliary Switches and Feedback Potentiometer Kits (quantity 5)
JOV-SW1	Auxiliary switch kit (one single-pole, double-throw)
JOV-SW2	Auxiliary switch kit (two single-pole, double-throw)
M9300-100	Threaded conduit adapters for 12.7 mm electrician's fittings (quantity 5)
M9300-140	External auxiliary feedback potentiometer 140k Ohm
M9000-151	Remote mounting kit, with crank arm and damper linkage for M9100 and M9300 series actuators
M9300-1K	External auxiliary feedback potentiometer 1k Ohm
M9300-2K	External auxiliary feedback potentiometer 2k Ohm
M9300-10K	External auxiliary feedback potentiometer 10k Ohm
M9310-600	Standard coupler kit, DM1.10 series (9.5 to 19 mm - 9.5 to 16 mm) (quantity 1)

NON-SPRING RETURN DAMPER ACTUATORS

ACTUATORS

STANDARD SERIES

8, 16, 24 AND 32 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL

The Joventa Standard Series Electric Actuators are direct-mount actuators. These bidirectional actuators do not require a damper linkage, and are easily installed on round shafts or square shafts using the standard shaft clamp included with the actuator.

A single Electric Non Spring Return Actuator provides 8, 16, 24 or 32 Nm torque depending on the model.

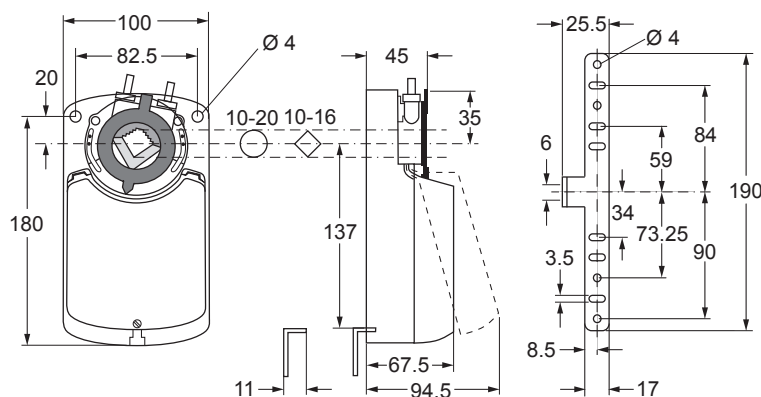
Two integral line voltage auxiliary switches indicate end stop position or performs switching functions within the selected rotation range.

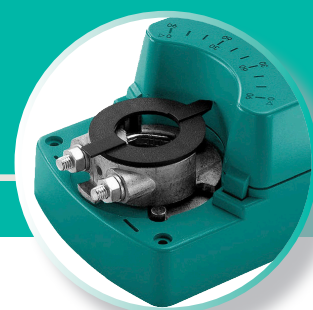
They provide 90° of rotation. A graduated scale from 0° to 90° and a position indicator provide visual indication of stroke.

FEATURES

- Direct-coupled design
- Selectable direction of rotation
- Electronic stall detection
- Double-insulated construction
- Load independent
- Optional integrated auxiliary switches
- Manufactured under International Standards Organization (ISO) 9001 Quality Control Standards




DIMENSIONS (in mm)

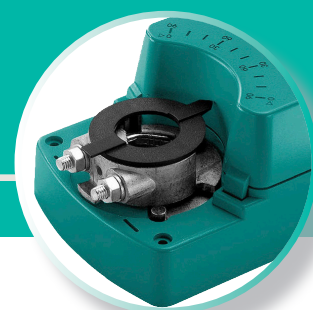




STANDARD SERIES










ORDERING INFORMATION

CODES	RUNNING TIME (s/mm)	CONTROL SIGNALS	2 AUXILIARY CONTACTS	FEEDBACK POTENTIOMETER	SUPPLY VOLTAGE (50/60 Hz)
8 Nm					
DAS1	30	ON/OFF and Floating	---	---	24 VAC/DC
DAS1.S				---	
DAS1.P1			---	1 kOhm	
DAS1.P2			---	140 Ohm	
DAS1.P4			---	2 kOhm	
DAS2			---	---	100 ... 230 VAC
DAS2.S				---	
DAS2.P1			---	1 kOhm	
DAS2.P2			---	140 Ohm	
DAS2.P4			---	2 kOhm	
DMS1.1		Proportional 0(2)...10 VDC / 0(4)...20 mA	---	---	24 VAC/DC
DMS1.1S				---	
DMS2.2		Proportional 0(2)...10 VDC	---	---	230 VAC
DMS2.2S				---	
DMS2.5		Proportional 0(4)...20 mA	---	---	
DMS2.5S			---		
16 Nm					
DA1	80	ON/OFF and Floating	---	---	24 VAC/DC
DA1.S				---	
DA1.P1			---	1 kOhm	
DA1.P2			---	140 Ohm	
DA1.P4			---	2 kOhm	
DA2			---	---	100 ... 230 VAC
DA2.S				---	
DA2.P1			---	1 kOhm	
DA2.P2			---	140 Ohm	
DA2.P4			---	2 kOhm	
DM1.1		Proportional 0(2)...10 VDC / 0(4)...20 mA	---	---	24 VAC/DC
DM1.1S				---	
DM2.2		Proportional 0(2)...10 VDC	---	---	230 VAC
DM2.2S				---	
DM2.5		Proportional 0(4)...20 mA	---	---	
DM2.5S				---	



STANDARD SERIES

ORDERING INFORMATION

CODES	RUNNING TIME (s/mm)	CONTROL SIGNALS	2 AUXILIARY CONTACTS	FEEDBACK POTENTIOMETER	SUPPLY VOLTAGE (50/60 Hz)	
24 Nm						
DAL1	125	ON/OFF and Floating	---	---	24 VAC/DC	
DAL1.S				---		
DAL1.P1			---	1 kOhm		
DAL1.P2			---	140 Ohm		
DAL1.P4			---	2 kOhm		
DAL2			---	---	100 ... 230 VAC	
DAL2.S				---		
DAL2.P1			---	1 kOhm		
DAL2.P2			---	140 Ohm		
DAL2.P4			---	2 kOhm		
DML1.1		Proportional 0(2)...10 VDC 0(4)...20 mA	---	---	24 VAC/DC	
DML1.1S				---		
DML2.2		Proportional 0(2)...10 VDC	---	---	230 VAC	
DML2.2S				---		
DML2.5		Proportional 0(4)...20 mA	---	---		
DML2.5S				---		
32 Nm						
DAG1	140	ON/OFF and Floating	---	---	24 VAC/DC	
DAG1.S				---		
DAG1.P1			---	1 kOhm		
DAG1.P2			---	140 Ohm		
DAG1.P4			---	2 kOhm		
DAG2			---	---	100 ... 230 VAC	
DAG2.S				---		
DAG2.P1			---	1 kOhm		
DAG2.P2			---	140 Ohm		
DAG2.P4			---	2 kOhm		
DMG2.2		Proportional 0(2)...10 VDC	---	---	230 VAC	
DMG2.2S				---		
DMG1.1		200	Proportional 0(2)...10 VDC 0(4)...20 mA	---	---	24 VAC/DC
DMG1.1S					---	

SPRING RETURN DAMPER ACTUATORS

ACTUATORS

DxFx.03

3 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL

The 3 Nm Series Electric Spring Return Actuators are direct-mount actuators.

These bidirectional actuators do not require a damper linkage, and are easily installed on round shafts or square shafts using the standard shaft clamp included with the actuator.

A single Series Electric Spring Return Actuator provides 3 Nm running and spring return torque.

An integral line voltage auxiliary switch indicates end stop position, or performs switching functions within the selected rotation range.

This Joventa Series Actuators provide 95° of rotation.

A graduated scale from -5° to 90° and a position indicator provide visual indication of stroke.

When power fails during service, the mechanical spring return system provides rated torque to the connected equipment, returning it to the home position.

The series includes the following control options:

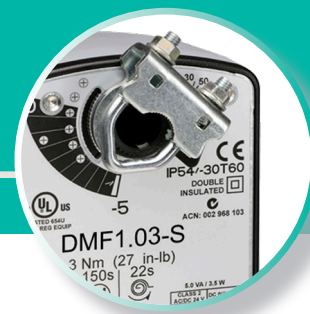
- ON/OFF, 24 V, 100 to 240 VAC power
- ON/OFF and floating point, 24 V power
- Proportional, 24 V power, for 0(2) to 10 VDC or 0(4) to 20 mA control signal

FEATURES

- 3 Nm rated torque
- Direct-coupled design
- Reversible mounting
- Electronic stall detection
- Double-insulated construction
- Microprocessor-controlled brushless DC motor (DBF and DMF types)
- External mode selection switch (DBF and DMF types)
- Integral cables with colored and numbered conductors
- Optional Integrated Auxiliary Switch
- Override control (proportional models only)
- Manufactured under International Standards Organization (ISO) 9001 Quality Control Standards

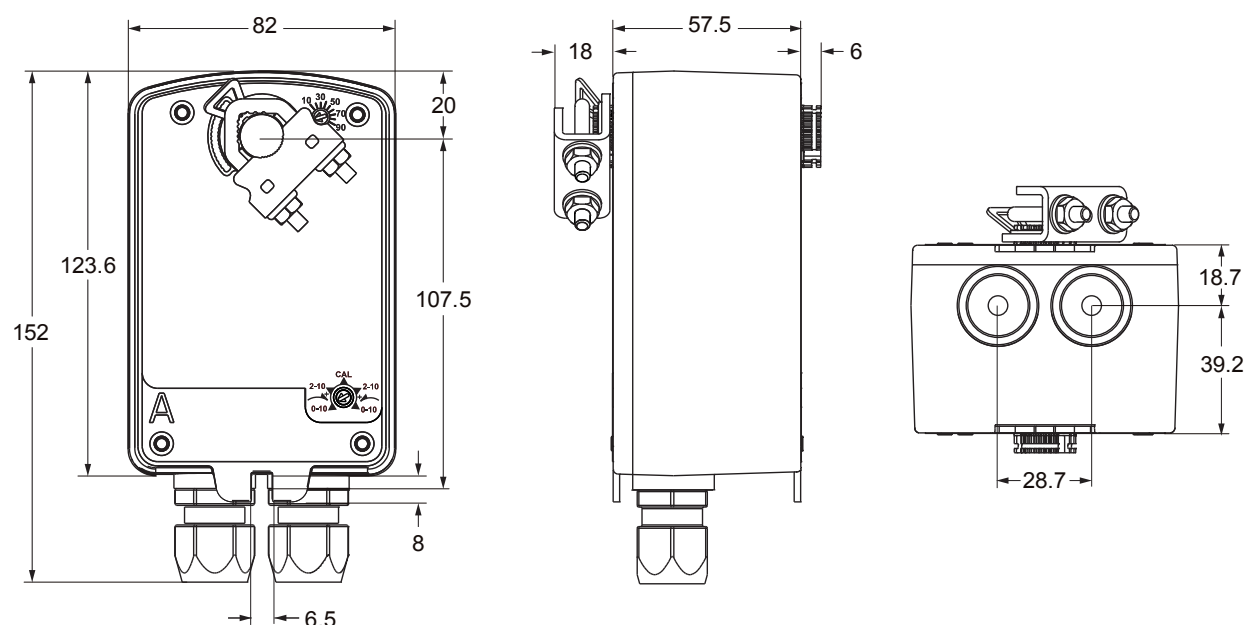


SPRING RETURN DAMPER ACTUATORS










DxFx.03

DIMENSIONS (in mm)



ORDERING INFORMATION

CODES	TORQUE (Nm)	RUNNING TIME (s/mm)	CONTROL SIGNALS	SUPPLY VOLTAGE (50/60 Hz)	1 AUXILIARY SWITCH
DBF1.03	3	150	ON/OFF and Floating	24 VAC / DC	---
DBF1.03S					
DBF1.03Z		---			
DBF1.03SZ					
DAF1.03		60	ON/OFF	100 - 240 VAC	---
DAF1.03S					
DAF2.03					---
DAF2.03S					
DAF2.03Z		---			
DAF2.03SZ					
DMF1.03		150	Proportional	24 VAC/DC	---
DMF1.03S					
DMF1.03Z		90			---
DMF1.03SZ					



DxFx.03

ORDERING INFORMATION

ACCESSORIES (ORDER SEPARATELY)

CODES	DESCRIPTION
M9000-322	Weathershield kit for damper application of 3 and 8 Nm series electric spring return actuators (quantity 1)
M9000-342	Weathershield kit for JVx05 series ball valve application of 4, 3 and 8 Nm series electric spring return actuators (quantity 1)
M9000-400	Jackshaft linkage adapter kit (quantity 1)
M9000-560	Ball valve linkage kit for applying 3 and 8 Nm series electric actuators to ball valves series (quantity 1)
M9000-561	Thermal barrier kit for M9000-560 ball valve linkage. Extends 4, 3 and 8 Nm series electric spring return actuators applications to include low pressure steam (quantity 1)
M9000-604	Replacement anti-rotation bracket kit for 3 Nm, 8 Nm, 10 Nm and 20 Nm series electric spring return actuators (quantity 1)
M9000-606	Position indicator for damper applications (quantity 5)
M9000-607	Position indicator for ball valve applications (quantity 5)
M9203-100	Remote mounting kit with crankarm kit (quantity 1)
M9203-110	Universal mounting kit without Crankarm kit (quantity 1)
M9203-115	Universal mounting kit with crankarm kit (quantity 1)
M9203-150	Crankarm kit (quantity 1)
M9203-250	Remote mounting kit with crankarm kit and damper linkage for D1300 dampers (quantity 1)
M9203-601	Replacement standard coupler kit (with retainer) for mounting 3 Nm series electric spring return actuators (quantity 1)
M9203-602	Replacement retainer for 3 Nm series electric spring return actuators (quantity 5)
M9203-603	Adjustable stop kit for 3 Nm series electric spring return Actuators (quantity 1)

SPRING RETURN DAMPER ACTUATORS

ACTUATORS

DxFx.08

8 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL

The Spring Return Electric Damper-Actuator series has been specially developed for the motorized operation of air dampers in Air Conditioning Systems.

When the control signal is applied the actuator drives the damper to the operational position, while evenly tensioning the integrated spring.

After a power failure the stored energy in the spring immediately brings the damper to the safety position.

Manual operation is automatically cancelled when the actuator is in electrical operation.

The compact design and universal adapter fitted with limitation of rotation angle make this actuator highly versatile.

FEATURES

- ON/OFF and Floating control signal
- Up to 5 actuators in parallel operation possible
- Electrical connection with halogen-free cable
- Simple direct mounting with universal adapter on Ø 8 mm to 16 mm shaft or 6 mm to 12 mm square shaft. An optional M9208-600 Jackshaft coupler kit is available for 12 to 19 mm round shafts, or 10 mm to 14 mm square shafts
- Limitation of rotation angle
- Manual positioning with crank handle
- 2 auxiliary switches, 1 adjustable

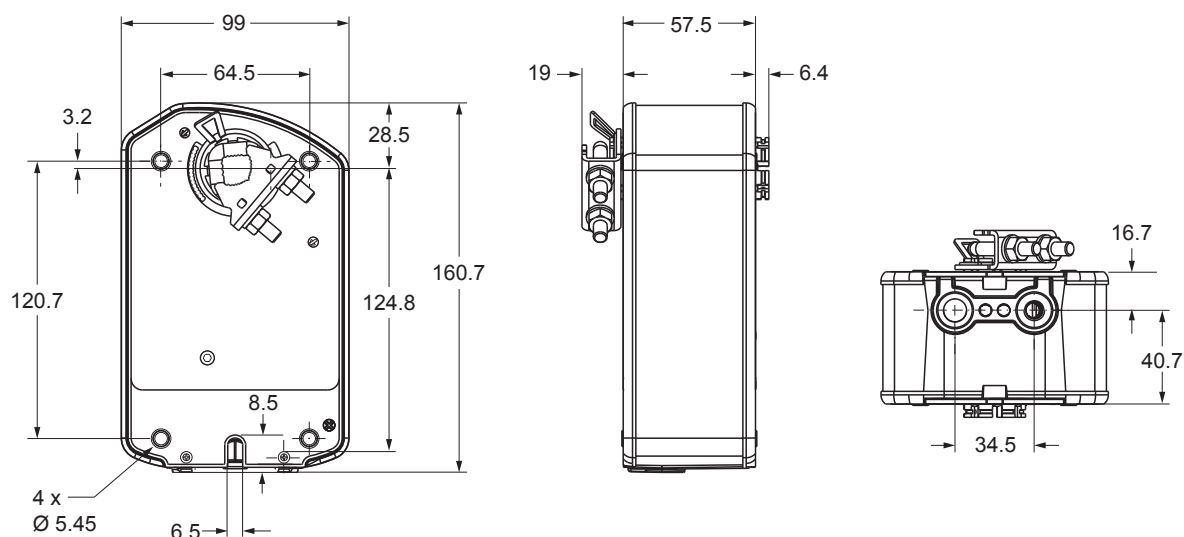


SPRING RETURN DAMPER ACTUATORS



DxFx.08

DIMENSIONS (in mm)



ORDERING INFORMATION

		RUNNING TIME (s/mm)				2
CODES	TORQUE (Nm)	Motor	Spring	CONTROL SIGNALS	SUPPLY VOLTAGE (50/60 Hz)	AUXILIARY CONTACTS
DBF1.08N	8	150	17...25	ON/OFF or Floating	24 VAC / 24 VDC	---
DBF1.08SN						■
DAF1.08N		55...71	13...26	ON/OFF	24 VAC	---
DAF1.08SN						■
DAF2.08N		55...71			230 VAC	---
DAF2.08SN						■
DMF1.08N		150	17...25	Proportional 0...10 VDC / 2...10 VDC	24 VAC / 24 VDC	---
DMF1.08SN						■

SPRING RETURN DAMPER ACTUATORS

ACTUATORS

DxFx.20

20 Nm, ON/OFF, FLOATING AND PROPORTIONAL CONTROL

The DxFx.20 Series Actuators are direct mount, Spring Return Electric that provide reliable control of dampers and valves in Heating, Ventilating, and Air Conditioning (HVAC) Systems.

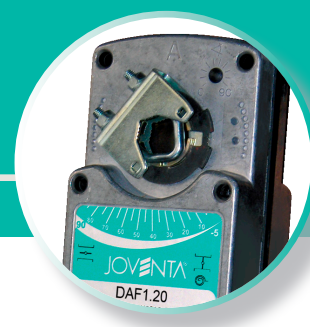
The actuators are available for use with ON/OFF, floating, and proportional controllers. These bidirectional actuators do not require a damper linkage, and are easily installed on dampers.

FEATURES

- ON/OFF, Floating and Proportional control
- Two or three models mounted in tandem deliver twice or triple the torque
- Up to 5 actuators in parallel operation possible
- Optional adjustable end stops.
The optional adjustable end stops are used to shorten the actuator stroke electronic stall detection throughout entire rotation range that extends the life of the actuator by deactivating the actuator motor when an overload condition is detected
- Integrated cables halogen-free cables
- IP54 (NEMA2)
- Rated aluminium enclosure
- Easy-to-use locking manual override with auto release and crank storage
- Energy saving at end position
- Two integral gold auxiliary switches (20S Models)

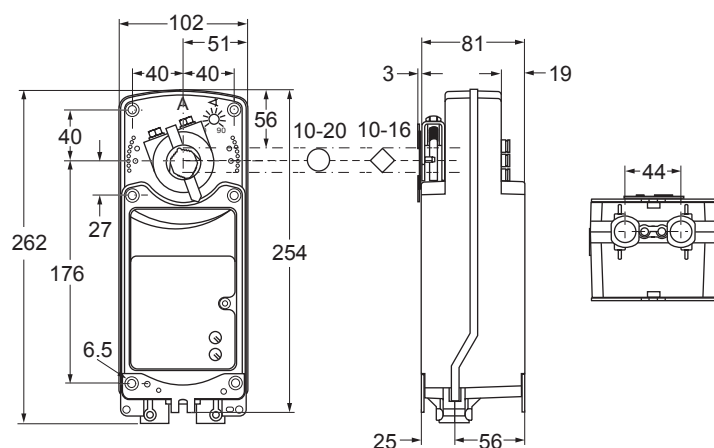


SPRING RETURN DAMPER ACTUATORS



DxFx.20

DIMENSIONS (in mm)



ORDERING INFORMATION

CODES	TORQUE (Nm)	RUNNING TIME (s/mm)		CONTROL SIGNALS	SUPPLY VOLTAGE (50/60 Hz)	2 AUXILIARY CONTACTS	
		Motor	Spring				
DBF1.20	20	150	20	ON/OFF and Floating	AC/DC 24 V	---	
DBF1.20S						■	
DAF2.20		25...57	11...15	ON/OFF	230 VAC	---	
DAF2.20S						■	
DAF1.20					AC/DC 24 V	---	
DAF1.20S						■	
DMF1.20		150	26	Proportional 0(2)...10 VDC		---	
DMF1.20S				Proportional 0(2)...10 VDC with span offset		■	
DHF1.20						---	
DHF1.20S						■	

SAFETY DAMPER ACTUATORS

ACTUATORS

SAFx.08

8 Nm, ON/OFF CONTROL

The SAFx.08 Security Fire Electric, Spring Return Damper Actuator series has been specially developed for the motorized operation of fire protection dampers.

When the control signal is applied the actuator drives the damper to the operational position, while evenly tensioning the integrated spring.

After a power failure the stored energy in the spring immediately brings the damper to the safety position.

Manual operation is automatically cancelled when the actuator is in electrical operation.

FEATURES

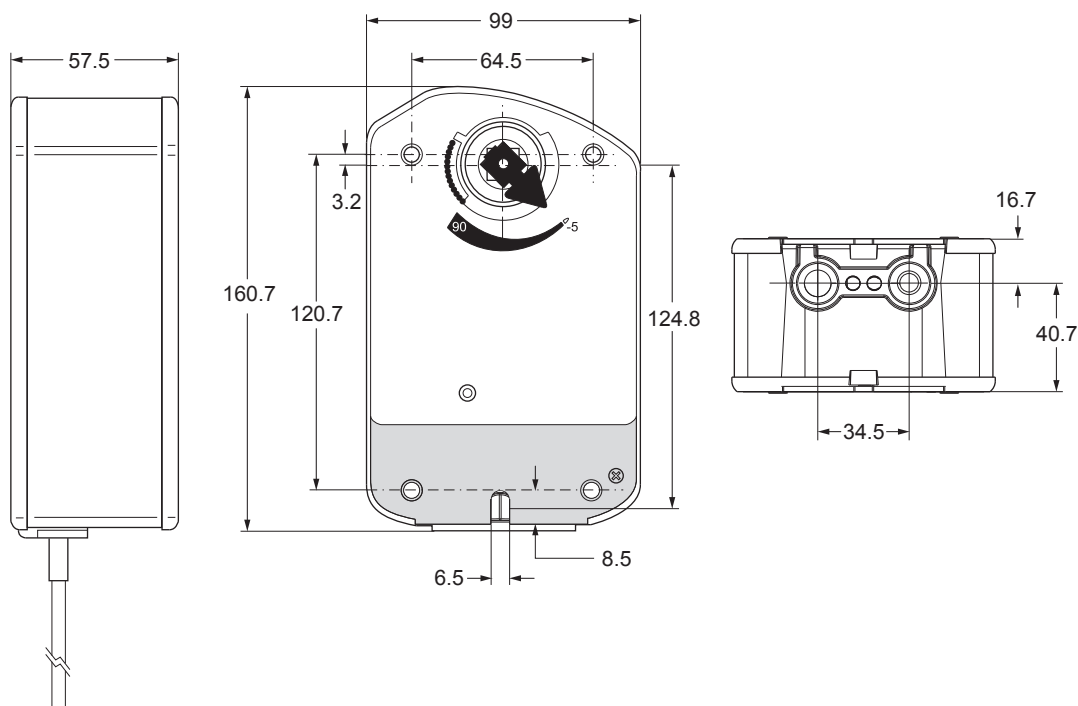
- ON/OFF control signal
- 12 mm square shaft and 10 mm, 8 mm adapter inside the package
- Connection with halogen-free cable
- ST1.72E temperature sensor. Switch point of temperature sensor ca. 72°C
- Actuator temperature sensor to monitor ambient sensor
- Low noise level
- Manual positioning with crank handle
- 2 fixed auxiliary switches (8° and 83°)





SAFx.08

DIMENSIONS (in mm)



ORDERING INFORMATION

CODES	SUPPLY VOLTAGE (50-60 Hz)	DESCRIPTION
SAF1.08S/12	24 VAC/VDC	Without sensor
SAF1.08SA/12		With ambient thermosensor
SAF1.08SB/12		With duct sensor
SAF1.08SC/12		With duct and ambient sensors
SAF2.08S/12	230 VAC	Without sensor
SAF2.08SA/12		With ambient thermosensor
SAF2.08SB/12		With duct sensor
SAF2.08SC/12		With duct and ambient sensors

JV205 & JV305

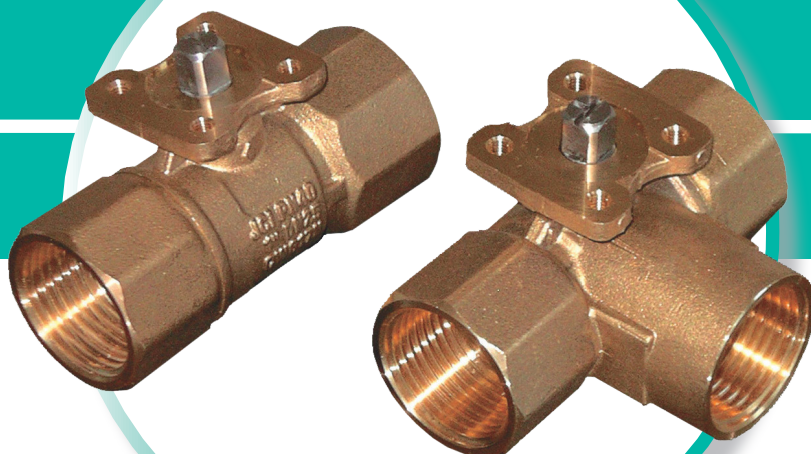
2- AND 3-WAY CONTROL VALVES WITH STAINLESS STEEL BALL

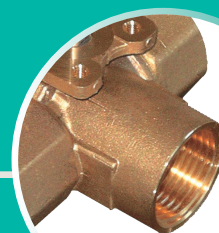
JVx05 Series Ball Valves are designed to regulate the flow of hot or chilled water and low pressure steam in response to the demand of a controller in HVAC systems.

Available in sizes DN15 through DN50, this family of two- and three-way forged brass valves is factory or field mounted to Joventa Non-Spring Return and Spring Return Electric Actuators for On/ Off, Floating, or Proportional control.

FEATURES

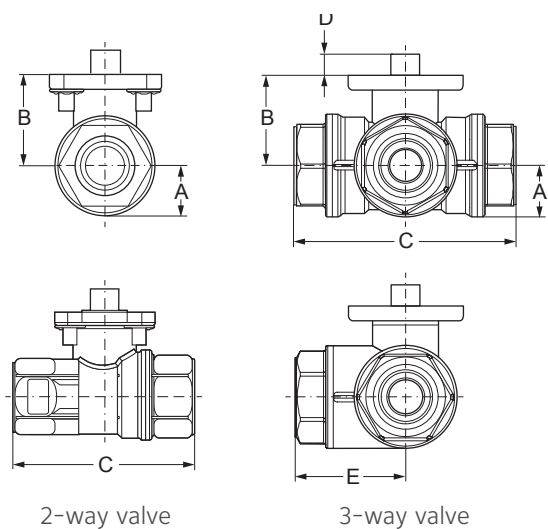
- Forged brass body
- K_{VS} 1...63
- 2-way, 3-way mixing and diverting configurations
- Inherent equal percentage flow characteristic in the in-line port of all valves
- BSPP female threaded body connections
- Service
 - Hot and cold water: -30...95°C with BAD-BMD series
 (140°C with M9000-561 Thermal Barrier)
 - 30...100°C with BxFx.03x, BxFx.08x and BxSx.10 series
 (140°C with M9000-561 Thermal Barrier)
 - Water with glycol to max 50% volume
 - Steam to max 100 kPa at 120°C with thermal barrier





JV205 & JV305

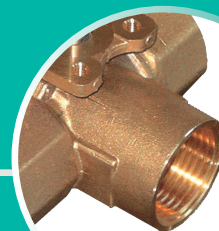
DIMENSIONS (in mm)



BODY SIZE	A	B	C	D	E
DN15	17	31	67	9	33
DN20			75		38
DN25	19	33	92		46
DN32	26	44	109		54
DN40	29	48	119		59
DN50	37	53	139		74

ORDERING INFORMATION

CODES	BODY SIZE	CONTROL PORT (K_{VS})	BY-PASS PORT (K_{VS})
JVx05AD	DN15	1.0	0.63
JVx05AE		1.6	1.0
JVx05AF		2.5	1.6
JVx05AG		4.0	2.5
JVx05AL		6.3	4.0
JVx05AN		10	5.0
JVx05BL	DN20	6.3	4.0
JVx05BN		10	5.0
JVx05CN	DN25	10	6.3
JVx05CP		16	8.0
JVx05DP	DN32	16	10.0
JVx05DR		25	12.5
JVx05ER	DN40	25	16
JVx05ES		40	20
JVx05FS	DN50	40	25.0
JVx05FT		63	31.5



JV205 & JV305

VALVES AND ACTUATORS COMBINATIONS

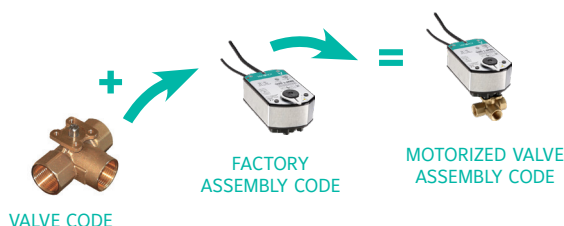
ACTUATOR TYPE													
Non-Spring Return				Spring Return									
4 Nm		10 Nm		3 Nm				4 Nm					
ACTUATOR OPTIONS	On/Off and Floating		Proportional 0 (2) to 10 VDC		On/Off and Floating		On/Off, Floating and Proportional		On/Off and Floating		On/Off and Floating		
	24 VAC		100-230 VAC		24 VAC/DC		100-230 VAC		24 VAC/DC		24 VAC/DC		
	Auxiliary Switches:												
	1 SPDT, 5.0(2.9) A @ 240 V												
	2 SPDT, 5.0(2.9) A @ 240 V												
	Position Feedback:												
	0(2) to 10VDC Position Feedback												
	ACTUATOR CODE												
	BAD1	BMD1.2	BAD2	BMS1.10	BAS2.10	BBF1.03Z	BBF1.03SZ	BAF1.03Z	BAF1.03SZ	BAF2.03	BAF2.03S	BMF1.03Z	BMF1.03SZ

Notes

- ① x = 3: Spring Return Port A Open
x = 5: Spring Return Port A Closed
- ② Available only as an external Kit.

Not present in the assembly.
Separately order: **JOV-SW1** for 1 SPDT
JOV-SW2 for 2 SPDT

PRESSURE DROP - kPa (bar)											DN mm	K _{vs} Control Port (Bypass Port)	VALVE BODY CONFIGURATION		FACTORY ASSEMBLED VALVE + ACTUATOR COMBINATIONS MATRIX																FACTORY ASSEMBLY CODE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
2 (0.02)	5 (0.05)	10 (0.1)	25 (0.25)	50 (0.5)	100 (1)	200 (2)	300 (3)	400 (4)	500 (5)	2-way			3-way																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
CONTROL INPUT	0,14	0,22	0,32	0,50	0,71	1,00	1,41	1,73	2,00	2,24	15	1,0 (0,63)	JV205AD	JV305AD	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■



Example: JV305CP + BMF13S



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