

## HVAC CONTROL PRODUCTS

### Actuators

## Spring Return Damper Actuators

### M9220-xxx-1

(Joventa DAFx.20 / DBF1.20 / DMF1.20)

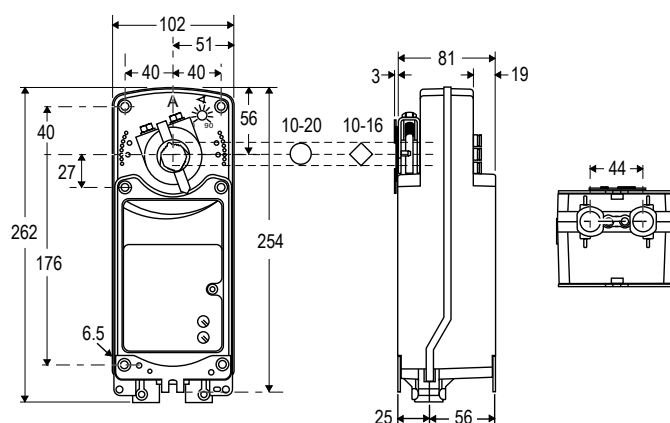
20 Nm, ON/OFF, Floating and Proportional Control

The M9220 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 (xxC Models)



Dimensions in mm

Ordering Codes		Torque	Running Time		Damper Size	Control Signals	2 x Auxiliary contacts	Supply Voltage (50/60Hz)
Johnson Controls	Joventa		Motor	Spring				
20 Nm								
M9220-AGA-1	DBF1.20	20 Nm	150 s	20 s	2.0 m²	ON/OFF and Floating	---	AC/DC 24 V
M9220-AGC-1	DBF1.20S						●	
M9220-BDA-1	DAF2.20		25...57 s	11...15 s	4.0 m²	ON/OFF	---	230 VAC
M9220-BDC-1	DAF2.20S						●	
M9220-BGA-1	DAF1.20						---	AC/DC 24 V
M9220-BGC-1	DAF1.20S						●	
M9220-GGA-1	DMF1.20		150 s	26 s		Proportional 0(2)...10 VDC	---	
M9220-GGC-1	DMF1.20S					●		
M9220-HGA-1	DHF1.20					Proportional 0(2)...10 VDC with Span offset	---	
M9220-HGC-1	DHF1.20S					●		