



DA-008SXXXX Series

8Nm Spring Return Damper Actuators - On/Off Control



Overview

The 8Nm Spring Return electric damper-actuator series has been specially developed for the motorized operation of air dampers in air conditioning systems. The compact design and universal adapter fitted with limitation of rotation angle make this actuator highly versatile.

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.

Applications

- Constant or variable air volume installations for the control of HVAC dampers.

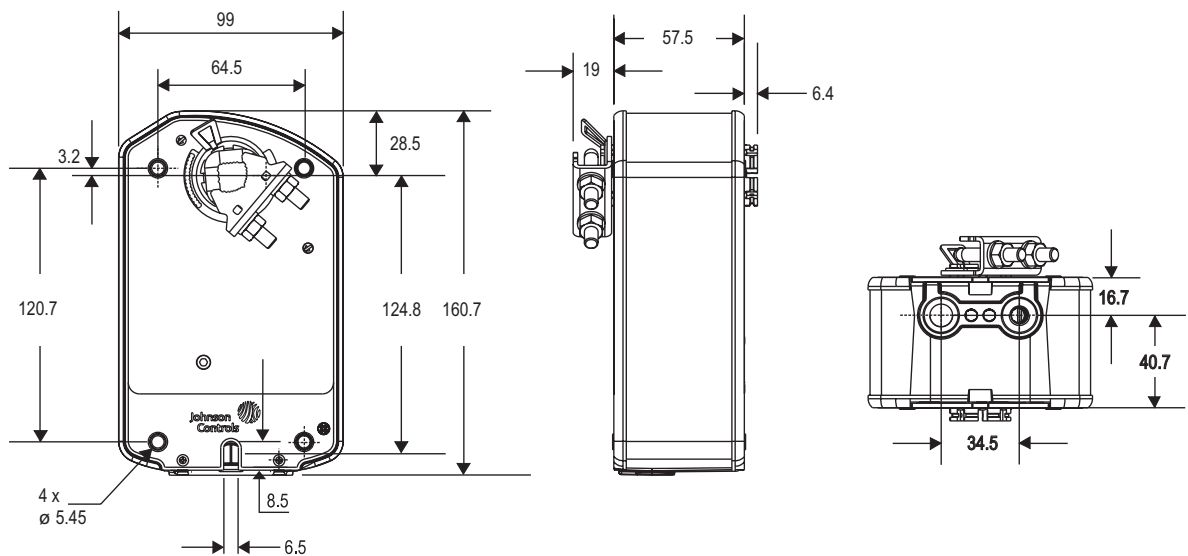
Features & Benefits

- ON/OFF control
- 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 shafts or 6 mm to 12 mm square shafts. 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
- Two auxiliary switches, one adjustable

Model Selection

Product Code	Power Supply	Control Type	Description
DA-008S024DX	24 Vac/Vdc	On/Off	8Nm, spring return actuator
DA-008S024D2	24 Vac/Vdc	On/Off	8Nm, spring return actuator , 2 Auxiliary Switches
DA-008S230DX	230 Vac	On/Off	8Nm, spring return actuator
DA-008S230D2	230 Vac	On/Off	8Nm, spring return actuator , 2 Auxiliary Switches

Dimensions (in mm)



Product Specifications

Power requirements

DA-008S024Dx	24 Vac at 50/60 Hz (AC 18 to 30 V); 24 Vdc (DC 21.6 to 28.8 V)
<input type="checkbox"/> Running	6.1 VA (AC); 3.5 W (DC)
<input type="checkbox"/> Holding position	1.2 VA (AC); 0.5 W (DC)
DA-008S230Dx	230 Vac at 50/60 Hz (AC 198 to 264 V)
<input type="checkbox"/> Running	0.04 A
<input type="checkbox"/> Holding position	0.03 A

Transformer sizing requirements

Minimum per actuator

<input type="checkbox"/> DA-008S024Dx	7 VA
<input type="checkbox"/> DA-008S230Dx	N/A

Rated torque

Power on (running)	8 Nm at all operating temperatures
Power off (spring running)	8 Nm at Standard operating temperatures 6 Nm at Extended operating temperatures

Rotation

Rotation range	Maximum Full Stroke: 95° Adjustable Stop: 35° to 95° Maximum Position
Rotation time for 90°	
<input type="checkbox"/> Power on (running)	55 to 71 Seconds for 0 to 8 Nm Load, at all Operating Conditions 60 Seconds Nominal at Full Rated Load (0.251 rpm)
<input type="checkbox"/> Power off (spring return)	13 to 26 Seconds for 0 to 8 Nm Load, at Room Temperature 21 Seconds Nominal at Full Rated Load 39 Seconds Maximum with 8 Nm Load, at -20 °C 108 Seconds Maximum with 6 Nm load at -40 °C

Service lifetime

Cycles	60,000 Full Stroke Cycles
--------	---------------------------

Audible noise rating

Power on (running)	<47 dBA at 8 Nm Load, at a Distance of 1 m
Power on (holding)	<20 dBA at a Distance of 1 m
Power off (spring returning)	<52 dBA at 8 Nm Load, at a Distance of 1 m

Electrical connections

Actuator (all models)	1.2 m UL 758 Type AWM Halogen-Free Cable with 0.85 mm ² (18 AWG) conductors and 6 mm ferrule ends
Auxiliary switches (-D2 models)	1.2 m UL 758 Type AWM Halogen-Free Cable with 0.85 mm ² (18 AWG) conductors and 6 mm ferrule ends
Input signal	N/A
Auxiliary switch rating (-D2 models)	Two Single-Pole, Double-Throw (SPDT), Double-Insulated Switches with Gold Flash Contacts: AC 24 V, 50 VA Pilot Duty; AC 240 V, 5.0 A Resistive, 1/4 hp, 275 VA Pilot Duty

Environmental

Standard operating temperature	-20 to 60°C; 90% RH Maximum, Non-condensing
Extended operating temperature	-40 to 20°C; 90% RH Maximum, Non-condensing
Storage temperature	-40 to 85°C; 95% RH Maximum, Non-condensing

Mechanical

Dimensions _____ See figure

Shipping weight

DA-008S024Dx _____ 1.7 kg

DA-008S230Dx _____ 1.9 kg

Spring return _____ Direction is Selectable with Mounting Position of Actuator:

Side A _____ Actuator faces away from damper for CCW spring return;

Side B _____ Actuator faces Away from damper for CW spring return

Mechanical connections _____ 8 to 16 mm Diameter Round Shafts, or 6 to 12 mm Square Shafts

Enclosure rating _____ IP 54 for All Mounting Orientations

Standards and regulations

Compliances _____ CE certification

_____ EMC Directive and Low Voltage Directive compliant