

M9206-AGx-1
2- and 3-point Spring Return Actuator

Application

The **JOHNSON CONTROLS** electric, spring return damper-actuator series has been specially developed for the motorized operation of safety air dampers (anti-icing) in air conditioning systems, smoke evacuation dampers and sealing 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. The compact design and universal adapter fitted with limitation of rotation angle make this actuator highly versatile.

Features

- 2- and 3- Point control
- Electrical connections with halogen-free cable
- Up to 5 actuators in parallel operation possible
- Simple direct mounting with universal adapter on Ø 10 mm to 16 mm shaft or 10 mm to 14 mm square shaft 45 mm min shaft length
- Selectable direction of rotation
- Limitation of rotation angle
- 1 adjustable auxiliary switches
See back page for settings
- Automatic shut-off at end position (overload switch)
- Energy saving at end positions
- Customized versions available
- Devices meet CE requirements



Technical Specifications

Actuator	M9206-AGx-1
Torque	6 Nm
Damper area*	1.1 m ²
Electrical connections	
- <i>Motor control</i>	4-Polig, 1.2 m, halogen-free
- <i>Auxiliary switches</i>	3-Polig, 1.2 m, halogen-free
Running time	
- <i>Motor OPEN</i>	60 or 90 s adjustable
- <i>Spring return CLOSE</i>	35...90 s
Supply voltage	AC 24 V ±25 % DC 24 V ±10 %
Frequency	50-60 Hz
Power consumption	
- <i>Operating</i>	AC 24 V = 8.0 VA DC 24 V = 5.6 VA
- <i>At end position</i>	AC 24 V = 6.0 VA DC 24 V = 2.2 VA
Control Signal	2- or 3-Point
Position Signal	None
Angle of rotation/Working range	90° (93°mech.)
Angle of rotation/Limitation	34.5°...90°
Service lifetime ca.	60.000 rotations
Auxiliary Switches	5(2.9) A, AC 230 V
- <i>Setting range</i>	0°...90° adjustable
Noise level	51 dB (A)
Ambient conditions	
- <i>Operating temperature</i>	-32...+60 °C / IEC 721-3-3
- <i>Storage temperature</i>	-40...+85°C / IEC 721-3-2
- <i>Humidity</i>	5...95% r.F. non condensed
Weight	1.6 Kg
Dimensioning	14.0 VA
Service	Maintenance-free
Standards	
- <i>Mechanics</i>	EN 60 529 / EN 60 730-2-14
- <i>Electronics</i>	EN 60 730-2-14
- <i>EMC Emissions</i>	EN 50 081-1:92 / IEC 61000-6-3:96
- <i>EMC Immunity</i>	EN 50 082-2:95 / IEC 61000-6-2:99

Ordering Codes

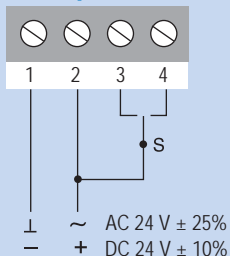
Codes	Descriptions
M9206-AGA-1	AC/DC 24 V, with Halogen-free cable
M9206-AGB-1	AC/DC 24 V, with Halogen-free cable and 1 auxiliary switches

***Caution:** Please note damper manufacturer's information concerning the open/close torque.

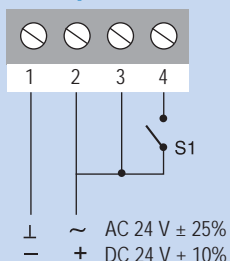
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Wiring Diagram

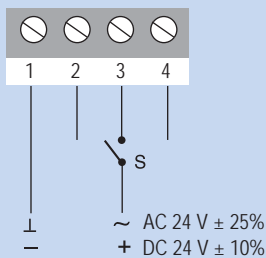
3-point



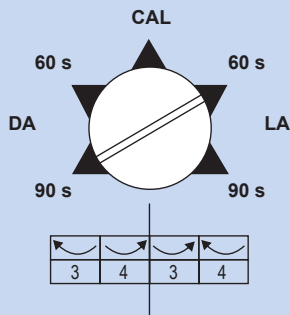
2-point



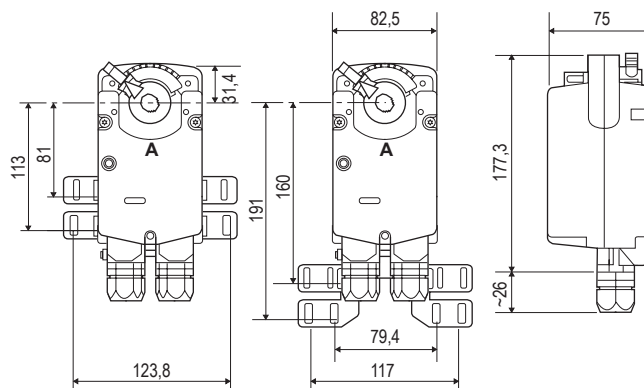
OPEN/CLOSE



Mode selection on running time switch

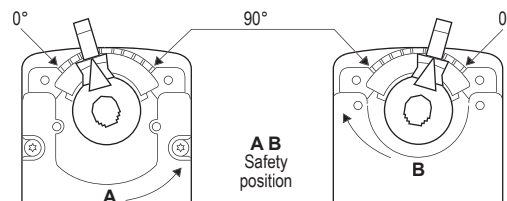


Dimensions in mm

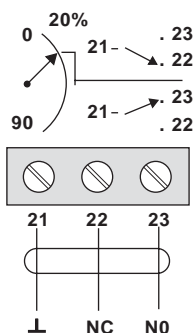


Changing the direction of rotation

The direction of rotation can be changed by simply turning the actuator and reversing the shaft adapter.

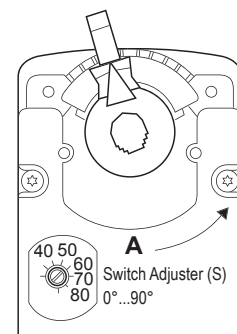


Auxiliary switch adjustment



The switch point is adjustable from 0°...90°.

Factory setting 20°



Limitation of rotation Angle

The angle of rotation/working range can be adjusted mechanically by repositioning the adapter in 5° steps. The minimum rotation range is 34.5°

