

DA1.F(S) / DA2.F(S)
ON/OFF Spring Return Actuator

Application

The **JOVENTA** 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

- ON/OFF control
- Up to 5 actuators in parallel operation possible
- Plug-in terminal block connection
- Simple direct mounting with universal adapter on Ø 10 mm to 20 mm shaft or 10 mm to 16 mm square shaft 77 mm min shaft length
- Selectable direction of rotation
- Limitation of rotation angle
- Manual positioning with crank handle
- 2 adjustable auxiliary switches
(See back page for settings)
- Automatic shut-off at end position (overload switch)
- Energy saving at end positions
- Actuators available with 1m halogen-free cable

Accessories

- ZK Damper linkage selection
- ZKG Ball joints
(See data sheet 6.10)

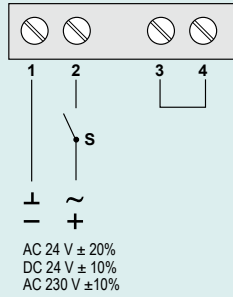


Ordering Codes

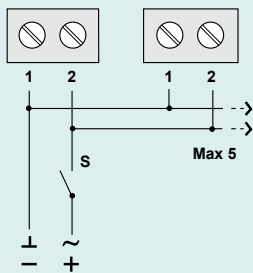
| Codes | Descriptions |
|--------|---------------------------------------|
| DA1.F | AC/DC 24 V |
| DA1.FS | AC/DC 24 V, with 2 auxiliary switches |
| DA2.F | AC 230 V |
| DA2.FS | AC 230 V, with 2 auxiliary switches |

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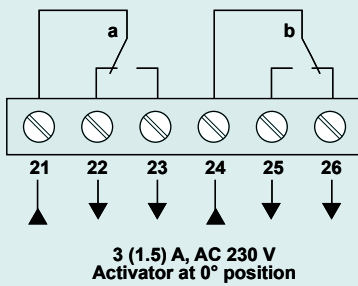
Wiring Diagram



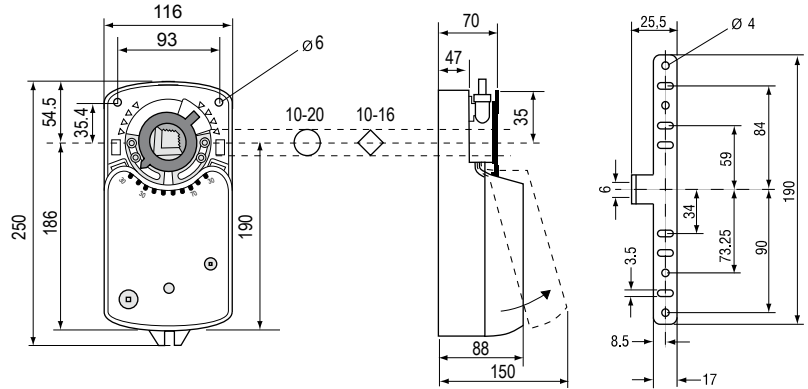
Parallel Connections



Auxiliary Switches (S)

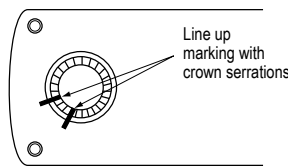


Dimensions in mm

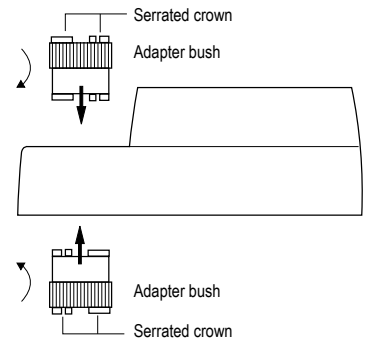


Changing the direction of rotation

The change in rotation direction is achieved by removing the adapter bush from one side and replacing it on the other side.



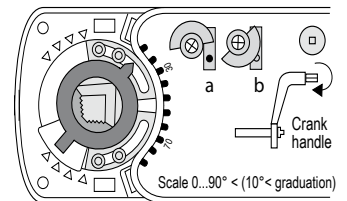
Factory setting:
Clockwise rotation.



Setting the auxiliary switches

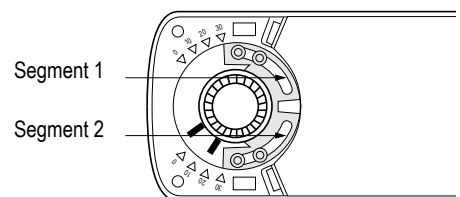
Factory setting
Switch **a** at 10°
Switch **b** at 80°

The switching position can be manually changed to any required position by turning the ratchet




Limitation of rotation Angle

The limitation of rotation/working range can, through segments 1 and 2, be reduced by up to 30° from both end positions.



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Technical Specifications

| Actuator | DA1.F(S) | DA2.F(S) |
|--|--|------------------------|
| Torque | 16 Nm | |
| Damper area* | 3.0 m ² | |
| Running Time Motor | 90...120 s | |
| Running Time Spring Return | 10 s | |
| Supply Voltage | AC/DC 24 V | AC 230 V |
| Frequency | 50-60 Hz | |
| Power Consumption | | |
| - Running | 10.0 W | 8.0 W |
| - At end position | 4.0 W | 4.5 W |
| Dimensioning | 18.0 VA / 4 A @ 2 ms | 13.0 VA / 0.3 A @ 2 ms |
| Control Signal | 2-Point ON/OFF | |
| Position Signal | None | |
| Angle of rotation/Working range | 90° (93°mech.) | |
| Angle of rotation/Limitation | 0°...30° and 90...60° | |
| Auxiliary Switches | 3(1.5) A, AC 230 V | |
| - Setting range | 5°...85° < adjustable | |
| Cable aperture connection | PG11 | |
| Life time | 60.000 rotations | |
| Noise level | 50 dB (A) | |
| Protection Class | II | |
| Degree of Protection | IP 54 | |
| Mode of Action | Type 1 | |
| Ambient conditions | | |
| - Operating temperature | -20...+50 °C / IEC 721-3-3 | |
| - Storage temperature | -30...+60°C / IEC 721-3-2 | |
| - Humidity | 5...95% r.F. no condensed | |
| Weight | 2.7 Kg | |
| Service | Maintenance-free | |
|  Compliance | Johnson Controls, Inc., declares that these products are in compliance with the essential requirements and other relevant provisions of the EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC | |

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

Building Efficiency

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