

SPRINGBACK

2- and 3-POINT Spring-return actuator 3.18N

Application

The JOVENTA **SPRINGBACK** 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 JOVENTA actuator highly versatile.

Key features

- 2- and 3-point control signal
- Electrical connections with halogen-free cable
- Up to 5 actuators in parallel operation possible
- 2 auxiliary switches
- Simple direct-mount with universal adapter on 12...19 mm \varnothing round-axis or 10-12-14 mm square shaft
- Minimum damper shaft 80 mm
- Limitation of rotation angle
- Energy saving at end positions
- Customized versions available
- Devices meet CE requirements

Accessories

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

Nomenclature / Specification / Technical data

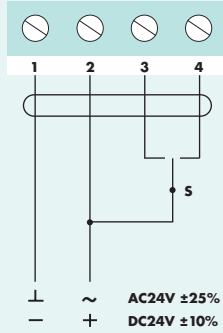
DBF1.10	AC/DC24V with cable
DBF1.10S	AC/DC24V with cable and 2 auxiliary switches
DBF1.20	AC/DC24V with cable
DBF1.20S	AC/DC24V with cable and 2 auxiliary switches

Actuator	DBF1.10(S)	DBF1.20(S)
Torque	10 Nm	20 Nm
Damper area*	2.0 m ²	4.0 m ²
Running time motor	150 s	150 s
Running time spring	26 s	26 s
Supply voltage	AC/DC24V	AC/DC24V
Frequency	50-60Hz	50-60Hz
Power consumption		
- Running VAC	9.6 VA	15.5 VA
- Running VDC	3.9 W	17.6 W
- At end position VAC	6.0 VA	7.7 VA
- At end position VDC	2.1 W	2.8 W
Dimensioning	15.0 VA	20.0 VA
Weight	2.9 kg	2.9 kg
Control signal	2- or 3-Point	2- or 3-Point
Position signal	None	None
Angle of rotation		
- Working range	90°<	
- Limitation	0°...30° and 90°...60°<	
Auxiliary switches	3(1.5)A, AC230V	
- S1 setting range	10°< fix	
- S2 setting range	25°...90°< adjustable	
Cable	1.2 m halogen-free	
- Motor	4-Wire	1-2-3-4
- Switches	6-Wire	21-22-23-24-25-26
Lifttime	60'000 Rotations	
Noise level	55 dB (A)	
Protection class	II	
Degree of protection	IP 54	
Mode of action	Type 1	
Ambient condition		
- Operating temperature	-40...+55°C / IEC 721-3-3	
- Storage temperature	-65...+85°C / IEC 721-3-2	
- Humidity	5...95% rF no condensed	
Service	Maintenance free	
Standards	Mechanics	EN 60 529 / EN 60 730-2-14
	Electronics	EN 60 730-2-14
	EMC-Emissions	EN 50 081-1-92
	EMC-Immunity	EN 50 082-2-95

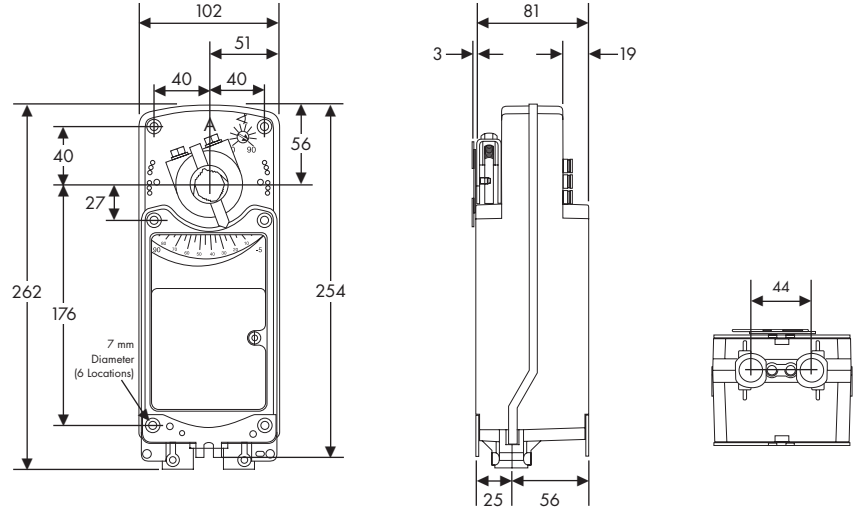
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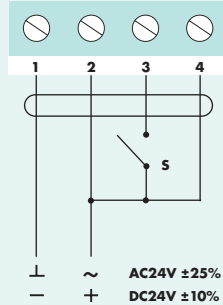
**Wiring diagram
3-point**



Dimensions in mm



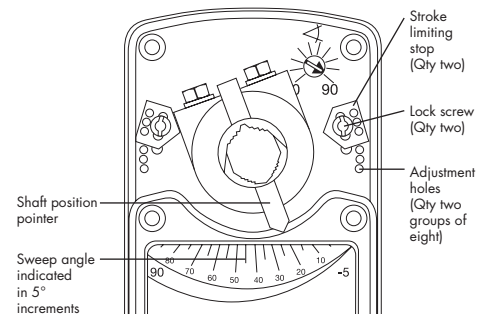
2-point



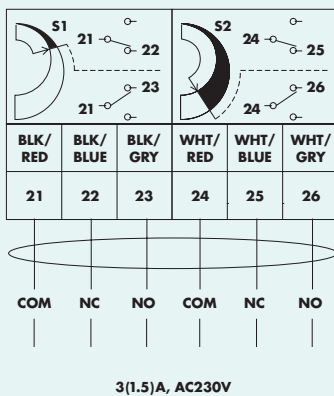
Limiting of rotation angle

Determine the desired rotation range. If a 65° to 90° rotation range is desired, add one stroke limiting stop. If a 35° to 60° rotation range is desired, add two stroke limiting stops.

Mount the stroke stop(s) in the desired position using the two M4x10 mm selftapping screws provided. Tighten the screws to a torque of 4 Nm. Manually reposition the coupler so that the coupler set screw aligns with the nodule guide that corresponds to the value determined in Step 2. For a rotation range of 65°, mount one stroke limiting stops in the minimum stroke position.



Auxiliary switches (S)



Auxiliary switches (S)

The 10S and 20S models include two integral auxiliary switches with a switch adjuster accessible on either face of the actuator.

The nominal factory setting for auxiliary switch S1 is 11° closing, and the nominal factory setting for auxiliary switch S2 is 81° opening.

The switch point of auxiliary switch S1 is fixed.

The switch point of auxiliary switch S2 is independently and continuously adjustable from 25° to 95°.

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

