

## STANDARD

## 2- and 3-POINT Actuators

2.20

### Application

The JOVENTA STANDARD electric damper-actuator series is designed to operate air dampers in ventilation and air conditioning systems.

The compact design and universal adapter fitted with limitation of rotation angle make this JOVENTA actuator highly versatile.

### Key features

- 2- or 3-point control
- Up to 5 actuators in parallel operation possible
- Plug-in terminal block connection
- Simple direct-mount with universal adapter on Ø 10 mm to 20 mm shaft or square shaft from 10 mm to 16 mm. 48 mm minimum damper shaft length
- Selectable direction of rotation
- Limitation of rotation angle
- Manual release button
- 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 1 m halogen-free cable
- Customized versions available
- Devices meet CE requirements

### Accessories

- ZK damper linkage selection
  - ZKG ball joints
- (see product sheet 6.10)

### Nomenclature/Specification/Technical data

|           |          |  |
|-----------|----------|--|
| DA...1    | AC/DC24V |  |
| DA...1.S  | AC/DC24V | with 2 auxiliary switches                |
| DA...1.P1 | AC/DC24V | with 1K $\Omega$ feedback potentiometer  |
| DA...1.P2 | AC/DC24V | with 140 $\Omega$ feedback potentiometer |
| DA...2    | AC230V   |  |
| DA...2.S  | AC230V   | with 2 auxiliary switches                |
| DA...2.P1 | AC230V   | with 1K $\Omega$ feedback potentiometer  |
| DA...2.P2 | AC230V   | with 140 $\Omega$ feedback potentiometer |
| .....K    |          | with 1 m halogen-free cable              |

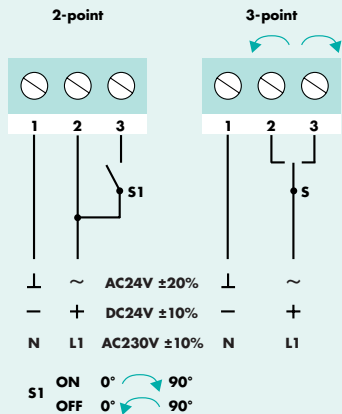
| Actuator                        | DA1.(S)(P..)              | DA1.(S)(P..)                       | DA1.(S)(P..)       | DA2.(S)(P..)        | DA2.(S)(P..)       | DA2.(S)(P..)       |
|---------------------------------|---------------------------|------------------------------------|--------------------|---------------------|--------------------|--------------------|
| Torque                          | 8 Nm                      | 16 Nm                              | 24 Nm              | 8 Nm                | 16 Nm              | 24 Nm              |
| Damper area*                    | 1.5 m <sup>2</sup>        | 3.0 m <sup>2</sup>                 | 4.5 m <sup>2</sup> | 1.5 m <sup>2</sup>  | 3.0 m <sup>2</sup> | 4.5 m <sup>2</sup> |
| Running time                    | 30...45 s                 | 80...110 s                         | 125...160 s        | 30...45 s           | 80...110 s         | 125...160 s        |
| Supply voltage                  | AC/DC24V                  |                                    |                    | AC230V              |                    |                    |
| Frequency                       | 50-60 Hz                  | 50-60 Hz                           | 50-60 Hz           | 50-60 Hz            | 50-60 Hz           | 50-60 Hz           |
| Power consumption               |                           |                                    |                    |                     |                    |                    |
| - Running                       | 4.0 W                     | 4.0 W                              | 4.0 W              | 5.5 W               | 5.5 W              | 5.5 W              |
| - At end position               | 0.5 W                     | 0.5 W                              | 0.5 W              | 1.0 W               | 1.0 W              | 1.0 W              |
| Dimensioning                    | 6.5VA / 2A @ 2 ms         |                                    |                    | 6.0VA / 0.1A @ 2 ms |                    |                    |
| Weight                          | 1.1 kg                    | 1.1 kg                             | 1.1 kg             | 1.2 kg              | 1.2 kg             | 1.2 kg             |
| Control signal                  | 2-point or 3-point        |                                    |                    |                     |                    |                    |
| Position signal                 | Potentiometer             |                                    |                    |                     |                    |                    |
| Angle of rotation/working range | 90° (93° mech.)           |                                    |                    |                     |                    |                    |
| Angle of rotation/limitation    | 5°...85° in 5° < steps    |                                    |                    |                     |                    |                    |
| Service lifetime                | 60,000 rotations          |                                    |                    |                     |                    |                    |
| Auxiliary switches              | 3(1.5)A, AC230V           |                                    |                    |                     |                    |                    |
| Setting range / adjustable      | 5°...85° < infinity       |                                    |                    |                     |                    |                    |
| Potentiometer load              | 0.5 W                     |                                    |                    |                     |                    |                    |
| Tolerance                       | ± 10%                     |                                    |                    |                     |                    |                    |
| Noise level                     | 45 dB (A)                 |                                    |                    |                     |                    |                    |
| Protection class                | II                        |                                    |                    |                     |                    |                    |
| Degree of protection            | IP 54 (cable downwards)   |                                    |                    |                     |                    |                    |
| Cable aperture connection       | M16 x 1.5                 |                                    |                    |                     |                    |                    |
| 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.              |                                    |                    |                     |                    |                    |
| 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 / IEC 61 000-6-3:96 |                    |                     |                    |                    |
|                                 | EMC Immunity              | EN 50 082-2:95 / IEC 61 000-6-2:99 |                    |                     |                    |                    |

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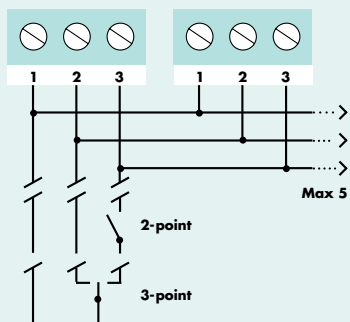
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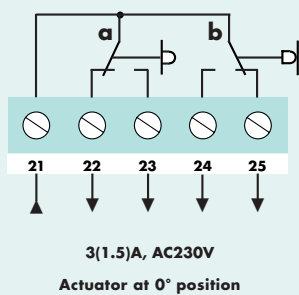
## Wiring diagram



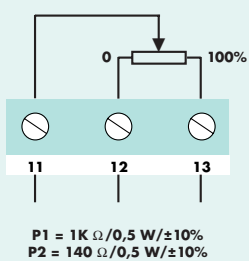
## Parallel connections



### Auxiliary switches (S)

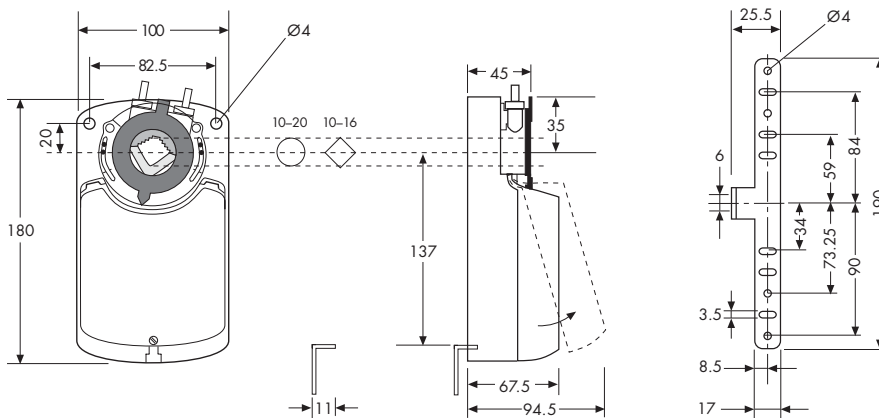


### Potentiometer (P)



For details of installation and commissioning see Manual 2.20

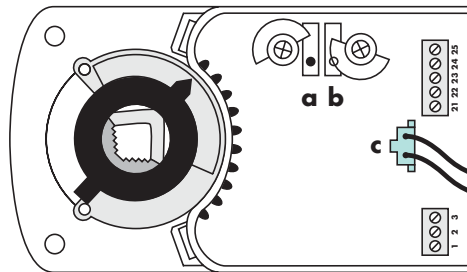
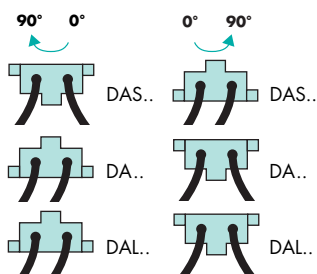
### Dimensions in mm



### Changing the direction of rotation

The direction of rotation can be changed by reversing plug **c**

### Factory setting



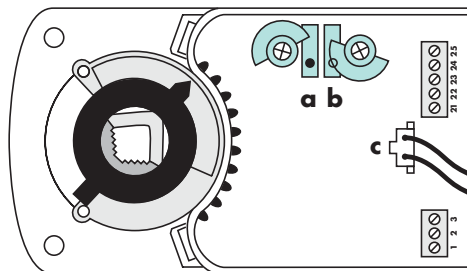
## Setting the auxiliary switches

Factory setting

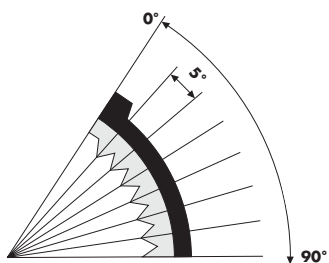
Switch **a** at  $10^\circ$

Switch **b** at 80°

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



### Limitation of rotation angle



## Adapter release

