Fast Runner Rotary Damper Actuator
On/Off and Raise/Lower RA 8-16

Jan.10

CE

RA8&16

Features

- **8 & 16Nm torque to regulate dampers up to approx 2 or 4m2**
- **Manual Override by Push-button**
- **Anti-rotation bracket provided for stability**
- **2 adjustable auxiliary switches (SPDT)**
- **Simple Direct Mounting by Universal Adapter**
- **Up to 5 actuators can be connected in parallel**
- **Reversible rotation**
- **Power saving at end stops**

Technical Data

Power Supply	24Vac/dc +/-10%, 50/60Hz , +/-10% 230Vac, 50/60Hz , +/-10%
Power Consumption	
Operating	3,9W for 24V and 4,8W for 230V
At the end stops	0,4W for 24V and 1,2W for 230V
Wiring Size	13VA
Connections	Screw terminals
Control Signal	On/Off or Raise/Lower
Shaft length	Min 50mm
Torque	8 and 16Nm
Protection Class	IP54 with cable glands
Rotation Angle	0-90°(93°mechanical)
Angle Limiting	5-85° (in 5° step)
Direction of Rotation	Bidirectional L/R switch (right/left)
Auxiliary Switch Rat.	2 x SPDT 3A(1,5),@24 and 230Vac
Shaft Dimension Dia.	10-20mm round / 10-16mm square
Running Time	**8 sec for 8 Nm and 16 sec for 16Nm**
Noise Level	< 50dB (A)
Usage Life	Min. 60.000 open-close operations
Position Indication	Mechanical
Ambient Temperature:	-20…+ 50°C
Ambient Humidity:	5…95%rH non-condensing
Weight	1,2kg
Maintenance	Maintenance free
Standards	The actuators meet CE requirements

Short Description

These non-spring return actuator have 8, and 16Nm running torpue in a compact easy-to-install package.

It has a nominal 8 or 16sec second travel time fo 90degree of rotation.

By using the mounting clamp the actuators can be direct couple mounted over the damper shaft

The compact size allows for easy installation where space is limited.

Manual control through buttons available in the housing.

Actuator itself has ability of over-loading protect.

It stops automatically without limit switch

Damper Size

When calculating the torque required to operate dampers, it is essential to take into account all the data supplied by the damper manufacturer concerning cross sectional area, design, mounting and air flow conditions.

The recommended damper size are guide values

Usage

RA on/off damper actuator is a high quality damper actuator for applications in HVAC systems.

Ordering

RA8 24DF	Damper Actuator	8Nm	24Vac/dc
RA8 230DF	Damper Actuator	8Nm	230Vac
RA16 24DF	Damper Actuator	16Nm	24Vac/dc
RA16 230DF	Damper Actuator	16Nm	230Vac
RA8 24DFS2	Damper Actuator	8Nm	24Vac/dc aux.sw
RA8 230DFS2	Damper Actuator	8Nm	230Vac aux.sw
RA16 24DFS2	Damper Actuator	16Nm	24Vac/dc aux.sw
RA16 230DFS2	Damper Actuator	16Nm	230Vac aux.sw

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Technical Overview

The RA8 and RA16 range of actuators require 24Vac/dc or 230V supply and can accept either an on/off or floating (raise/lower) control signal input.

They are available in 8 and 16Nm torque rating and can have an auxiliary switches options fitted.

The direction of rotation can be reversed and the angle of mechanical travel can be limited by up to 30 degree from either end.

Installation

1. Ensure that all power is disconnected before carrying out any work on the RA.
2. Maximum cable is 2,5mm2, care must be taken not to over tighten terminals.
3. Attach the actuator to the damper spindle, finger tighten the nut on the clamp.
4. Fix the anti-rotation strap to the back of the actuator (bend if required).
5. Move the damper to the closed position.
6. Using the manual override push button, turn the clamp until the actuator is in correct position.
7. Tighten the nut on the clamp.
8. If the damper has no fixed stops of its own, the limit stops may need to be adjusted.

   To mechanically limit the angle of rotation, loosen the 2 bolts on the segment required to be limited, and reposition the segment

   Re-tighten the 2 boltsthe bolt.

   Note, this operation only limits the travel at one end.

   If both ends need to be limited, carry out the above operation on the other segment.
9. Fit the cable gland into the back of the actuator
10. Undo the screw on the cover of the actuator and remove the cover.
10. Terminate the cores at the terminal block (see page 3), leaving some slack inside the unit.
11. Replace the lid after the electrical connections hav been made.
12. Ensure that the voltage is within the sepcified tolerances.

Auxiliary Switches

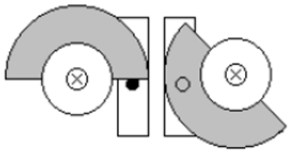
To adjust the auxiliary switches, in this example to 30° and 70°), follow the procedure below.

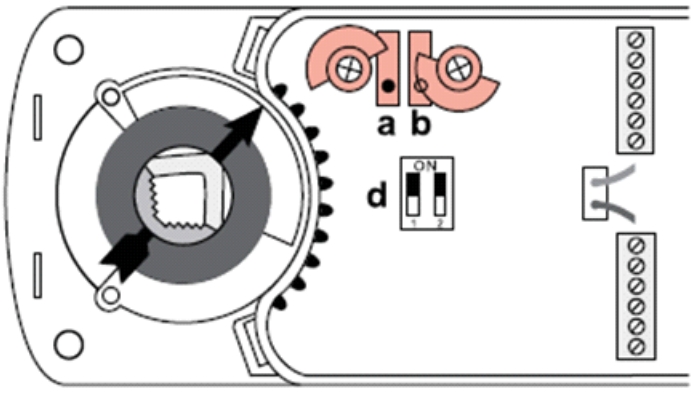
NB: The switches, where fitted, are factory aligned to 10° for **A** and 80° for **B**.

1. To set switch A (see fig.2) press the manual over-ride switch and rotate the adaptor (Fig.1) to the 30° position.
2. Slightly loosen the cross head screw in cam wheel A so that the wheel can be moved by hand.
3. Rotate cam wheel A until the micro switch clicks.
4. Re-tighten the cross head screw in cam wheel A.
5. To set switch B (see fig.2) press the manual override switch and rotate the adaptor (Fig.1) to the 70° position.
6. Slightly loosen the cross head screw in cam wheel B so that the wheel can be moved by hand.
7. Rotate cam wheel B until the micro switch clicks.
8. Re-tighten the cross head screw in cam wheel B.

Fig 1.

Fig 2.





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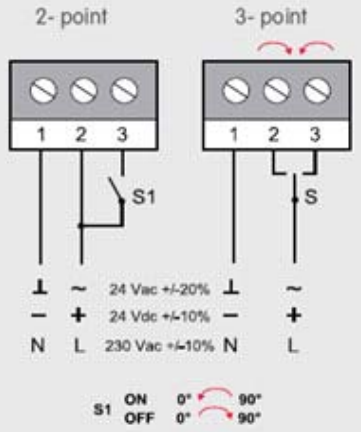
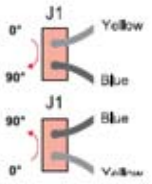
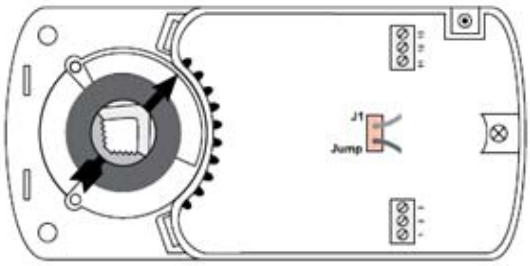
electrical diagram



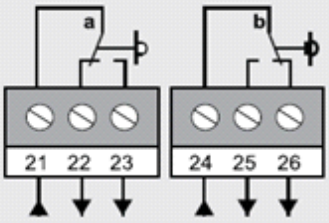
Direction of rotation setting

The direction of rotation can be changed by reversing Jumper J1.





auxiliary switches

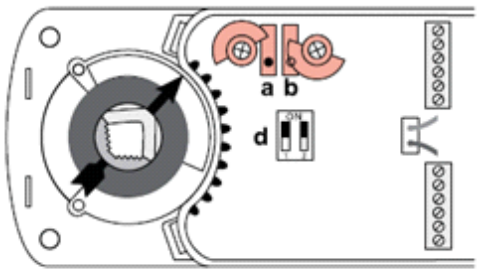


3 (1,5) A 230 Vac

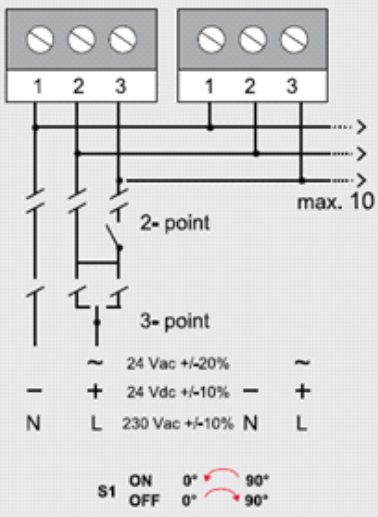
actuator in position 0°

Auxiliary switches setting

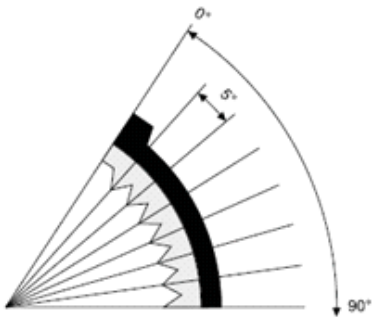
Factory setting:
switch a at 10°
switch b at 80°
The switching position can be changed manually.



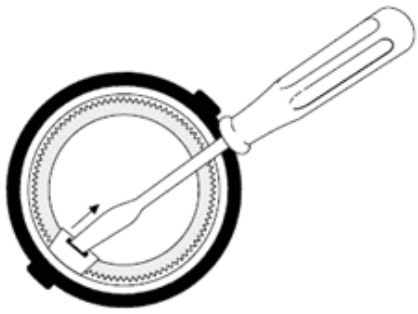
parallel connections



Limitation of rotation angle



Adapter release



DIMENSIONS (mm)