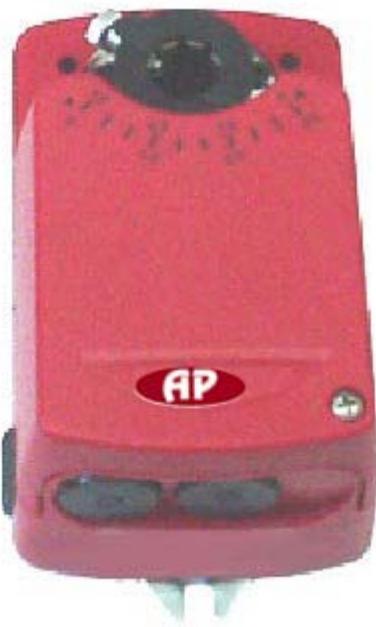




Rotary Damper Actuator

Modulating 2-10vdc/4-20mA 4Nm RA4

Jan.10



RA4

CE

Features

- 4Nm torque to regulate dampers up to approx. 1,0m²
- Manual Over-Ride by Crank Handle
- Anti-rotation bracket provided for stability
- Adjustable Angle of Rotation, Mechanical Endstops
- Simple Direct Mounting by Universal Adapter
- Reversible rotation

Short Description

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

A mechanical limit operator is placed inside

Output signal amount 0-100%

Technical Data

Power Supply 24Vac/dc +/-10% 50/60Hz

Power Consumption

Operating 2,5W

At the end stops 0.85W

Wiring size 4,1VA

Control Signal(Input) 0-10Vdc eller 4-20mA

Position Signal(Output) 0-10Vdc

Torque 4 Nm

Protection Class IP54

Angle Limiting Max 95 degree

Direction of Rotation Bidirectional (right/left switch)

Angle of Rotation -5...+85° wit 5°steps

Rotation angle 0-90°

Shaft Dimension 8-16mm diameter / 5-12mm square

Running Time 35 sec

Noise Level < 45dB (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 0,9 kg

Maintenance Maintenance free

Connections Screw terminals

Standards The actuators meet CE requirements

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

RA4 modulating damper actuator is a high quality damper actuator for applications in HVAC systems.

Ordering

RA4 24V Damper Actuator 0-10V dc 4Nm 24Vac/dc

RA4 24C Damper Actuator 4-20mA 4Nm 24Vac/dc

Technical Overview

The RA4 range of actuators require 24Vac/dc supply and can accept either an 0-10Vdc or 4-20mA control signal input.

It is available with a 4Nm torque rating.

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 RA4.
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.

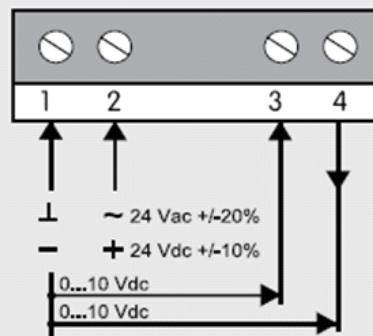
To mechanically limit the angle of rotation, loosen the bolt on the required side to be limited, and re-tighten the bolt.

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 bolt.

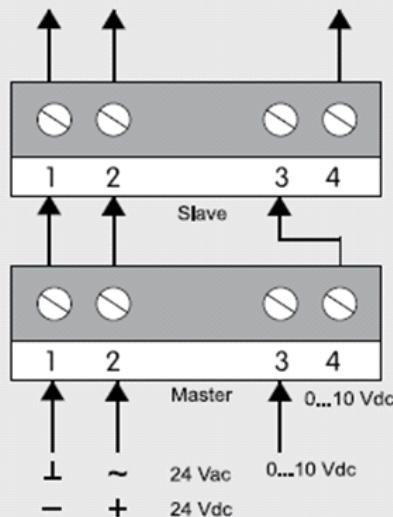
9. Undo the screw on the cover of the actuator and remove the cover.
10. Terminate the cores at the terminal block leaving some slack inside the unit.
11. Replace the lid after the electrical connections have been made.
12. Ensure that the voltage is within the specified tolerances.

electrical diagram



Load resistance: > 50 kOhm
Input resistance: Ri > 100 kOhm

parallel connections



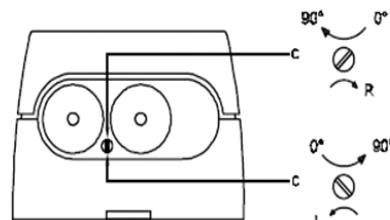
Max 5 actuators

Changing Direction of Rotation

The direction of rotation can be changed by moving the screw on the back of the actuator.

It is factory set for clock-wise rotation

R = factory setting



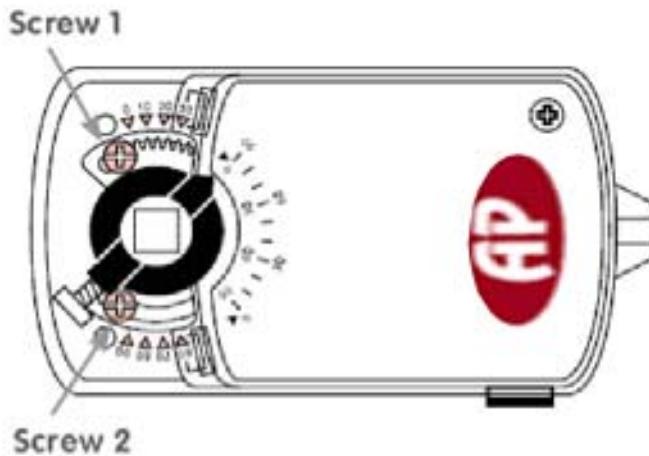


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Limitation of rotation angle

The range of working angle (90°) can be reduced by up to 30° from each end of position by screw 1 and 2.



DIMENSIONS (mm)

