

## 4Nm On/Off or Raise/Lower Actuator

### Features

- Reversible rotation
- Mechanically set rotation limits



### Specification

#### Power supply:

VA-DAN1E 24Vac/dc  $\pm 10\%$ 

VA-DAN2E 230Vac  $\pm 10\%$ 

Frequency 50 - 60Hz

#### Max. power consumption:

VA-DAN1xE

Running 2.5W

Stopped 0.85W

VA-DAN2xE

Running 4.0W

Stopped 3.0W

#### For wiring size:

VA-DAN1xE 4.1VA

VA-DAN2xE 5.0VA

Control signal ON-OFF or Floating

#### Angle of rotation:

0° - 90° mechanical

5° - 85° mechanically limitable

Running time 35 seconds

Protection IP42 or IP44

Aux. switch rating 230V @ 3A (1.5A)

#### Ambient:

Temperature -20°C to +50°C

RH 5 to 95% RH

Max sound power 45 dB(A)

Protection class II

Conformity CE

Country of origin Germany

### Product Codes

#### VA-DAN1E

24Vac/dc 4Nm on/off, Floating actuator

#### VA-DAN1.SE

24Vac/dc 4Nm on/off or Floating actuator with end switches

#### VA-DAN2E

230Vac 4Nm on/off, Floating actuator

#### VA-DAN2.SE

230Vac 4Nm on/off or Floating actuator with end switches

## Technical Overview

The VA-DANE range of actuators require 24Vac/dc (VA-DAN1E) or 230Vac (VA-DAN2E) supply and can accept either an on/off or floating (raise/lower) control signal input. They are available in a 4Nm torque rating and can have an auxiliary switch option fitted.

The direction of rotation can be reversed and the angle of mechanical travel can be limited.

## Installation

1. Ensure that all power is disconnected before carrying out any work on the VA-DANE.
2. Maximum cable is 2.5mm<sup>2</sup>, 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 the 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 (see page 3), leaving some slack inside the unit.
11. Ensure that the voltage is within the specified tolerances.
12. Replace the lid after the electrical connections have been made.

## 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.

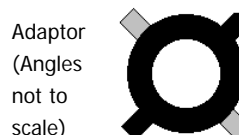
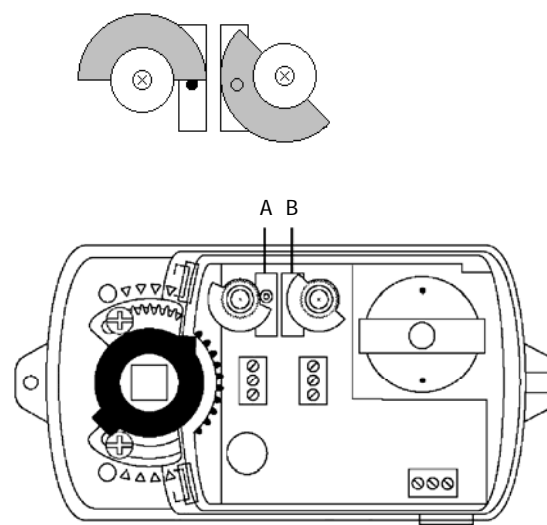
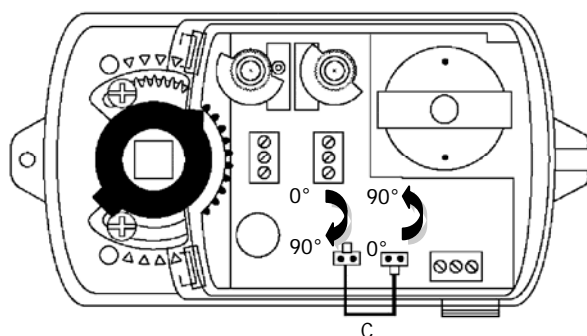


Fig 2.



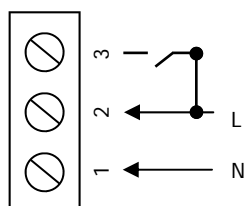
## Changing direction of rotation

The direction of rotation can be changed by removing the 2-pin plug (C), on the flying lead from the motor, and turn through 180°. Re-connect to the 2-pin socket on the main PCB (see diagram inside actuator lid and below).

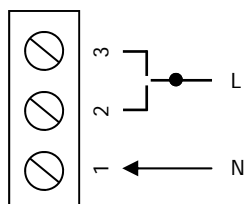


## Connections

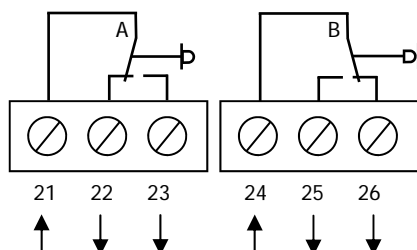
On/off control:



Floating control (raise/lower):



Auxiliary switches:



Actuator at 0° position

## Dimensions

