

## 20Nm On/Off, R/L & Modulating Damper Actuators

Issue Number: 7.0 Date of Issue: 08/12/2016



## **Features & Benefits**

- Maintenance-free
- Position indication
- Reversible rotation
- Mechanically set rotation limits
- Manual override

The VA-20 range of actuators require either a 24Vac/dc or 230Vac supply depending on version ordered. They are available to accept either an on/off/floating (raise/lower) or modulating control signal input. They also have auxiliary switch option.

The direction of rotation can be reversed by a simple selector switch. The actuator is overload-proof, and requires no limit switches and automatically stops when the end stop is reached.

## **Product Codes**

#### VA-20A-24S

24Vac/dc 30Nm on/off or Floating actuator with auxiliary switches

#### VA-20A-230S

230Vac 30Nm on/off or Floating actuator with auxiliary switches

#### VA-20M-24S

24Vac/dc 30Nm Modulating actuator with auxiliary switches

## **Specification**

Power supply:

VA-20x-24 19-29Vac/dc (24V nominal) VA-20A-230 85-265Vac (230V nominal)

Max. power consumption:

Running 3W Stopped 1.5W

Connection Via 1m flying lead (halogen free)

Angle of rotation  $0^{\circ}$  - 95° Running time <150s / 90°

Damper coupling:

Square 9-18mm Round 9-26mm

Damper size Up to approx. 4m<sup>2</sup>

Protection IP54

Aux. switch rating SPDT 5(2.5)A @250Vac

Service life >60000 cycles (0°-95°-0°)

Ambient:

Temperature -30 to +50°C RH 5 to 95% RH

Protection class

VA-20x-24 III

VA-20x-230 II
Conformity CE
Country of origin Germany

# $\epsilon$

24Vac/dc versions

The products referred to in this data sheet meet the requirements of EU Directive 2014/30/EU  $\,$ 

230Vac versions

The products referred to in this data sheet meet the requirements of EU 2014/30/EU and 2014/35/EU

WEEE Directive:

At the end of the products useful life please dispose as per the local regulations.
Do not dispose of with normal household waste.
Do not burn.

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#### Installation

- 1. Ensure that all power is disconnected before carrying out any work on the damper actuator.
- 2. Attach the actuator to the damper spindle, finger tighten the nuts on the V-clamp.
- 3. Fix the anti-rotation device to the back of the actuator. This is supplied connected to the back of the housing, to release simply buckle.
- 4. Move the damper to the closed position. Using the manual override push button, turn the clamp until the actuator is in the correct position and tighten the V-clamp.
- 5. If the damper has no fixed stops of its own, the angle of rotation / working range can be adjusted mechanically by re-positioning the adjustable stops.
- 6. Terminate the cores of the flying lead as required and ensure that the voltage is within the specified tolerances.

## **Operating Modes & Connections**

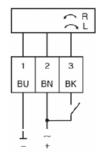
#### 2-Point

Through connecting the power supply to BU+BN (1+2) and the direction of rotation switch on position "R" moves the actuator to position 1. Is also BK (1+2+3) connected to the power supply the actuator is moving to position 0.

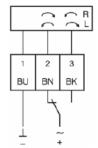
#### 3-point

Through connecting the power supply to BU+BN (1+2) and the direction of rotation switch on position "R" moves the actuator to position 1. If the power supply is interrupted the actuator maintains its current position. Is also BU+BK (1+3) connected to the power supply the actuator is moving in direction 0

#### 2-Point







#### Rotary direction switch

R/CW= clockwise L/CCW= counter clockwise



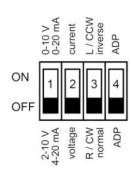
### Modulating

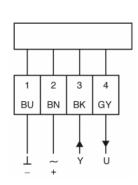
Through connecting the power supply to BU+BN (1+2) and a reference signal Y to BK (3) of 0(2)...10Vdc, moves the actuator to its specified position. The actual damper position 0...100% is a feedback signal U for example to share the signal with other actuators.

## Mode-switch

Measure on angular range

- Actuator power-off
- Setting the mechanical end stops
- Connecting the actuator to the power supply
- ut Dip 4 to "ON"
- Actuator is measuring on angular range
- "Y" refers to the measured angular range





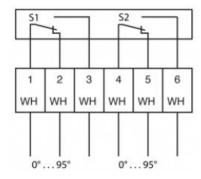


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## **Operating Modes & Connections (continued)**

Adjustment of auxiliary switches



## **Dimensions**

