



Features and Benefits

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

Technical Overview

The VA-F-N range of spring return actuators require either a 24Vac/dc or 230Vac supply depending on version ordered. They are available to accept either an on/off or modulating control signal input. They also have an auxiliary switches option.

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

Product Codes

VA-FA-24-N	24Vac/dc 20Nm Failsafe on/off actuator
VA-FA-24S-N	24Vac/dc 20Nm Failsafe on/off actuator with auxiliary switches
VA-FA-230-N	230Vac 20Nm Failsafe on/off actuator
VA-FA-230S-N	230Vac 20Nm Failsafe on/off actuator with auxiliary switches
VA-FM-24-N	24Vac/dc 20Nm Failsafe Modulating actuator
VA-FM-24S-N	24Vac/dc 20Nm Failsafe Modulating actuator with auxiliary switches

Specification

Power supply:	VA-Fx-24-N	19-29Vac/dc (24V nominal)
	VA-FA-230-N	85-265Vac (230V nominal)
Max. power consumption:	VA-FA-24-N	
	Running	9W Stopped 2.5W
	VA-FA-230-N	
	Running	8.5W Stopped 2W
	VA-FM-N	
	Running	8W Stopped 2W
Connection	Via 1m flying lead (halogen free)	
Angle of rotation	0° - 95°	
Running time:	VA-FA types	
	Motor	<75s/90° Spring <20s/90°
	VA-FM types	
	Motor	<150s/90° Spring <20s/90°
Damper coupling:	Square	9-18mm Round 9-26mm
Damper size	Up to approx. 4m ²	
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-Fx-24-N	III
	VA-FA-230-N	II
Conformity	CE	
Country of origin	Germany	
Conformity*	EMC, LVD, CE & UKCA Marked	
Conformity	EMC, CE & UKCA Marked	

* Actuators with auxiliary switches only

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.



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 duct to prevent the actuator from rotating.
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 (recommended torque 10Nm).
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

On/off

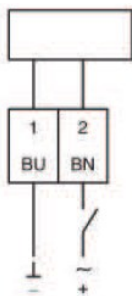
Through connecting the power supply to BU+BN (1+2), the actuator moves to position 1 while the pre-tensioned spring is wound up the same time. If the power supply is interrupted the actuator is moving back to position 0 by the spring power. The actuator is still maintaining the minimum torque at the damper spindle.

Modulating

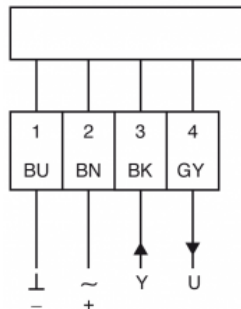
Through connecting the power supply to BU+BN (1+2) and a reference signal Y to BK (3) of 0(2)...10Vdc, moves the actuator to its specified position. The actual damper position 0...100% is a feedback signal U for example to share the signal with other actuators. If the power supply is interrupted the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

Select the direction & input voltage of the control signal via the rotary switch.

On/Off



Modulating



Mode-switch (under case cover) modulating only)

Measure on angular range

Actuator power-off

Setting the mechanical end stops

Connecting the actuator to the power supply

Put Dip 4 to "ON"

Actuator is measuring on angular range

"Y" refers to the measured angular range



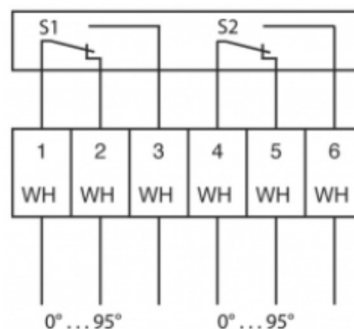
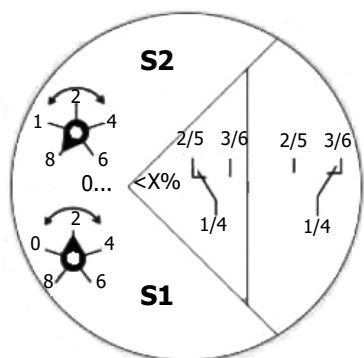
Manual override

The actuator can be operated only manually while the power supply is off. The supplied lever is to open and lock the damper position. The lock stays until the power supply is put on.

Operating Modes & Connections (continued)

Adjustment of auxiliary switches

The two integrated auxiliary switches are freely adjustable in the angle of 0 – 95°. These are activated corresponding to the adjusted angle. The damper position can be checked by the mechanical pointer.



Dimensions

