

# INSTALLATION AND OPERATION INSTRUCTION

## FlowCon FN.1.4 actuator

The actuator type **FlowCon FN.1.4** is an electrical actuator supplied with a valve adaptor for easy installation.

The piping network can now be tested if necessary by manually adjusting the valve adaptor knob.

**WARNING: Do not force the knob in either direction and never adjust the black knob on the valve adaptor with a higher torque than 1 Nm.**

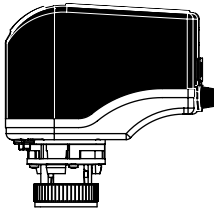


Figure 1

### Fitting and orientation of the actuator

Separate valve adaptor from actuator (figure 2) by ❶ pressing the green release button and ❷ turning the top part of the actuator 30° counter clockwise. ❸ Then remove the top part of the actuator from the valve adaptor.

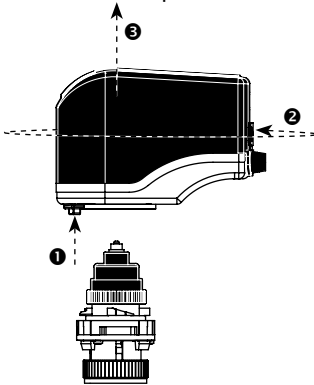


Figure 2

❹ Rotate the black knob on the valve adaptor counter clockwise (figure 3) so that the valve adaptor stem and the green indicators are in top position. ❺ Mount the valve adaptor on the insert (which must already be installed in the valve body) and finger tighten the connection union. Do not use additional tools.

**Never install the valve adaptor in closed position as this may damage the insert.**

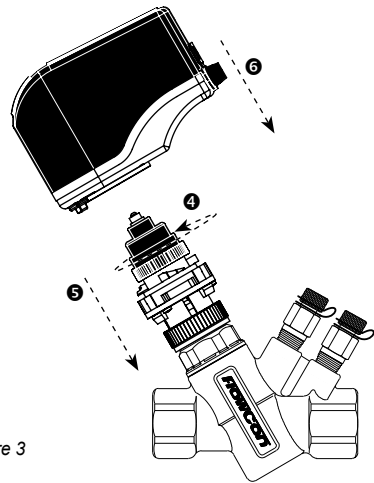


Figure 3

❻ Then place the actuator on the valve adaptor and turn clockwise 30°, until a “click” is heard. Please do not mount the actuator more than 90° from vertical (figure 4).

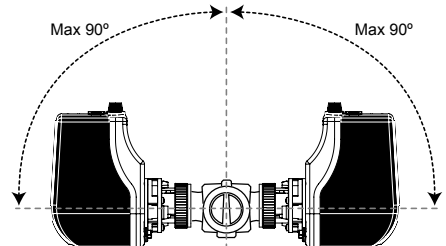


Figure 4

### Actuator wiring

The wiring diagrams for FlowCon FN.1.4 is shown in figure 5-8.

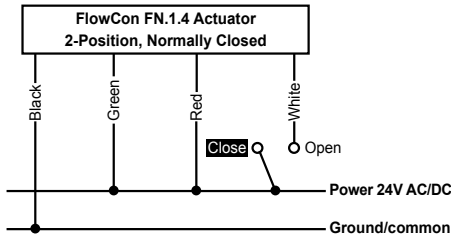


Figure 5

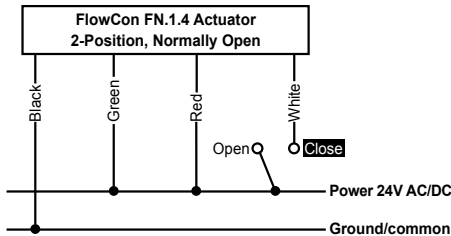


Figure 6

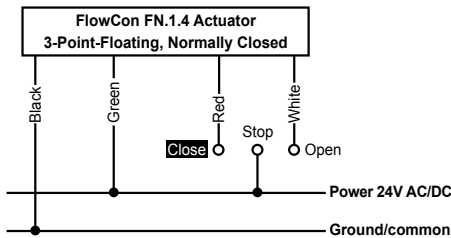


Figure 7

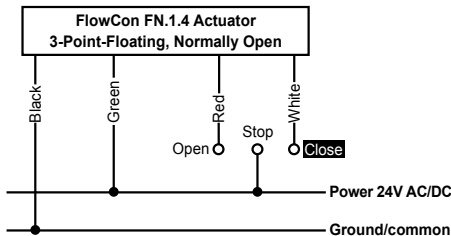


Figure 8

### Dip switch settings

Lift the silicone cap on the back of the actuator to get access to the dip switches (figure 9).



Figure 9: Dip switch factory settings (ON-ON).

Dip switch no. 1- Rotation direction:  
 OFF - Normally open.  
 ON - Normally closed.

Dip switch no. 2 - Failsafe direction:  
 OFF - Open.  
 ON - Close.

### Start-Up Sequence

When power is applied, the actuator will charge the capacitor and calibrate itself:

- The capacitor is charged. This can take up to 90 sec (normally about 30 sec). The LED will blink once every 2 sec. while charging.
- The actuator will proceed to normal operation (according to the control signal). The LED will blink in a loop of 1 sec. on, 9 sec. off while in normal operation.

### Failsafe Sequence

When power is lost, the actuator will go into failsafe mode after a few seconds:

- The actuator will perform the failsafe action (open or close). The LED will blink once every 2 sec. while in failsafe mode.
- The LED will blink in failsafe mode for several minutes after the failsafe action is completed and then the actuator will shut off.

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## Removing actuator / Manual override operation

To disengage the actuator or perform manual override, please turn off the power supply and press the release button while turning the top part of the actuator counter clockwise 30° (figure 2, page 1).

The piping network can now be tested if necessary by manually adjusting the valve adaptor knob.

**IMPORTANT:** FlowCon FN.1.4 actuator and FN.1.4 valve adaptor are not custom made as a pair from the supplier, which means that a FN.1.4 actuator can be used with any FN valve adaptor with green indicators. Using other models of valve adaptors may cause valve damage.

## Warranty obligation

Failure to abide by all recommendations as per this installation and operation instruction will void warranty.

***For latest updates pls. see [www.flowcon.com](http://www.flowcon.com)***

