

# **Installation and Operation Instruction**

The actuator types **FlowCon BM000S**, **BM020S BT000S**, **BT020S**, **BT200** and **BT220** are electrical 90° turn actuators.

BM000S and BM020S are modulating versions and BT000S, BT020S, BT200 and BT220 are 3-point floating and 2-position actuators.

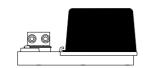


Figure 1

## **Fitting and Re-fitting**

Manually close the valve and position the actuator at 0° or 90°. Loosen the two nuts on the U-bracket on the actuator with an 8 mm (5/16") socket spanner. Slide the actuator on the valve spindle and tighten the nuts evenly and firmly, max. 6.7Nm (60 in.lb.). Slide the mounting

bracket under the actuator. Ensure free movement of the slot at the actuator base and place the bracket pin in the slot. Fix the bracket to the ductwork with size 8 self-tapping screws.

In case the actuator will have to be removed or turned, reverse the above procedure.

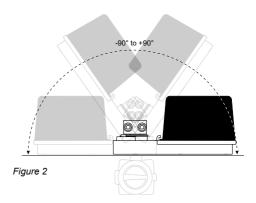
These actuators are as standard supplied with a clockwise rotation (switch CW), i.e. 0°=closed valve and 90°=fully open valve.

Changing to counter-clockwise rotation is done by setting the switch to CCW.



#### **Orientation**

Install the valve so that the actuator is located upwards and not lower than the horizontal line in order to prevent condensation into the electronics.



### FlowCon B Actuators

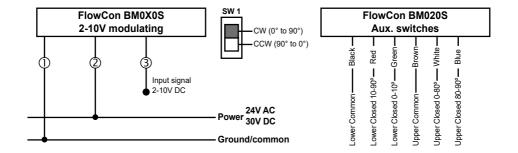
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# Wiring

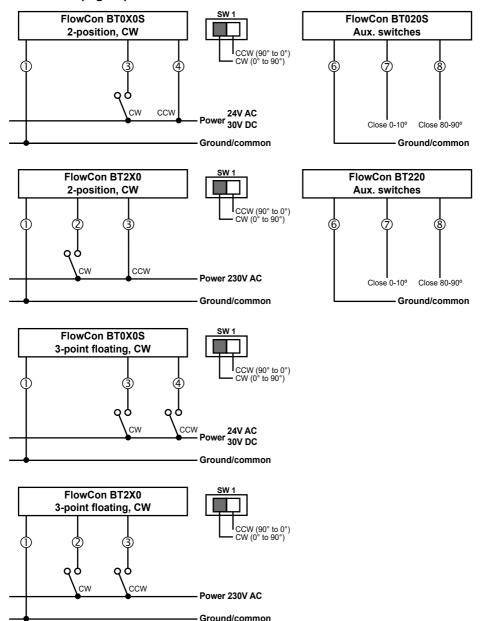
Remove the actuator cover by loosening the cover screw with a small Phillips screwdriver and connect wires according to below wiring diagrams.

## FlowCon B (analog)





## FlowCon B (digital)



### FlowCon B Actuators

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## **End Switches / Auxiliary Switches**

Versions BM020S, BT020S and BT220 are equipped with two auxiliary switches. The built-in auxiliary switches are used to indicate the imminent end position of the valve to start or stop e.g. a fan or other accessories.

## **Stroke Adjustment**

As standard the actuators come with a 0° to 90° rotation angle. The angle can be adjusted to a narrower angle by loosening, moving and tightening the screws available at each end of the rotation scale.

### **Manual Override**

Disconnect power, press the clutch on the side of the actuator casing and mechanically turn the valve spindle. NOTE: Do not press the clutch while the actuator is in operation.