

## Installation and Operation Instruction

The actuator types **Maplef MFNJ.1.2**, and **MFNJ.1.2-EQ** are electrical actuators, 24V modulating.

### Fitting and Re-fitting



**Do not connect power to the actuator unless the actuator is already fitted on the valve and NEVER install the actuator in closed position - this may damage the valve. Actuator is supplied in open position to ensure easy commissioning of the system.**

Mount the actuator on the valve and finger tighten the connection union. Do not use additional tools. In case the actuator will have to be removed, it is recommended to electrically open the actuator for easier removal. Then disconnect power and hereafter finger loosen the connection union. Again, no need for additional tools. Please make sure that the actuator is electrically fully opened, before re-fitting it on the valve.

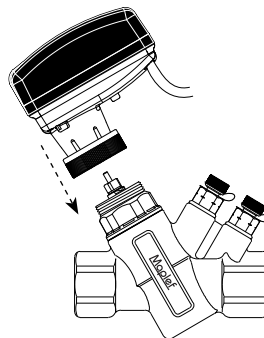


Figure 1

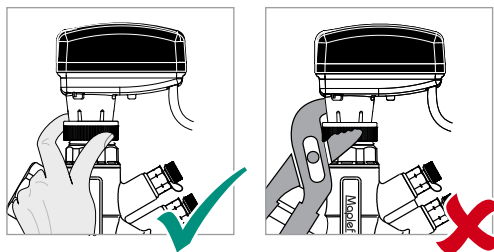


Figure 2

### Orientation

Horizontal and vertical installation is allowed.

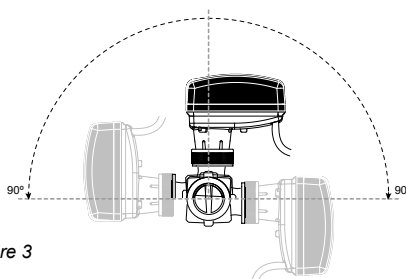
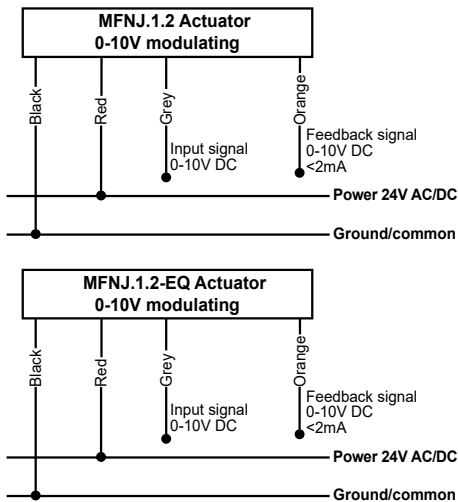


Figure 3



Wiring

Maplef MFNJ (analog)



Start-up / Re-Power Sequence

When power to the actuator is turned on, capacitor charging will be prioritized (max. 150 sec depending on capacitor energy level) during startup and re-powering. After completion of charging mode, the actuator will automatically calibrate to determine closing point. Hereafter it will proceed to normal operation mode (according to control signal).

Closing Point Validation

The built-in Closing Point Validation re-confirms the valve’s closing point when the valve is left in fully closed position for a longer period of time. It will perform a short stroke lift and back to closed position every 2 hours if no stroke movement has occurred.

Failsafe Mode

When power is lost, the actuator will go into failsafe mode, mandatory that capacitor charging is completed. The actuator will perform failsafe action (close) and fully turn off the actuator. Upon power, the actuator remains in the final failsafe position until charging mode (max. 150 sec) and calibration mode are completed. Hereafter the actuator will return to normal operation mode.

LED Status

The LED indicator is visible through the dark colored transparent connection cover. The LED indication will give the following statuses.

Maplef MFNJ.1.2/MFNJ.1.2-EQ	
Status	LED indication
Not configured	Blinking red, green and blue
Normal operation mode (moving)	Blinking green
Normal operation mode (reached)	Full on green
Charging mode (max. 150 sec)	Full on blue
Calibration mode (closing point adjustment)	Blinking red
Failsafe mode	Blinking blue
Perpetual failure mode	Rapid blinking red
Super capacitor near end-of-life (recommend actuator replacement)	Rapid blinking blue