



HOW TO CONNECT A BUTTERFLY VALVE

NOWA can control valves of different sizes such as 3-, 4-, 6- and 8-inch valves. The connections and operation of these valves are different from the connections of standard valves. This document will explain the differences as well as the connections to the NOWA 360 system and the NOWA 4S system.

Differences

Butterfly valve vs ball valve

The 3, 4, 6 and 8 inches size valves are butterfly type valves. These valves use a disc installed on a pivot in the centre of the valve body. This disc opens and closes to control the water supply to the pipe to which it is installed. The disc, when opened, will have a small restriction due to the disc remaining present in the middle. In general, due to the size of the valve, this restriction is not felt further in the network.



Opening / Closing Time

The opening and closing times of butterfly valves are different due to their mechanism. A butterfly valve takes about 2 minutes to open and about 30 seconds to close (if the valve is normally closed). The time may vary depending on the pressure in the piping. These delays prevent damage to the piping during closing / opening.

Power Supply

Butterfly type valves require much higher power to be controlled. This is why a backup battery is always included for each valve. The backup battery will allow the valve to continue to operate during a power outage as well as power it properly when continuous power is present.

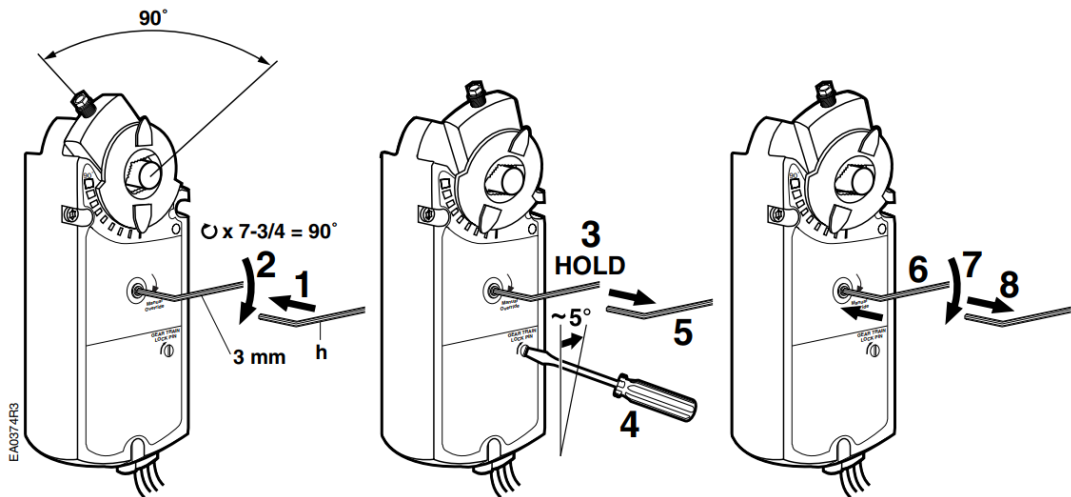


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Manual override

To manually open a butterfly valve with the motor on, you must use a 3 mm Allen key.



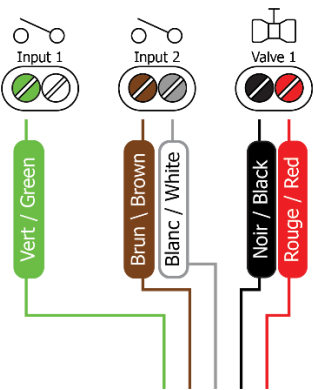
You can also use the included black handle. However, to be able to use it, it is important to uncouple the motor from the valve. This handle will allow you to open the valve more easily / quickly than with the manual opening on the engine.



Procedure

NOWA 360 connection

To connect a butterfly valve motor to a NOWA 360, you must follow these connections.



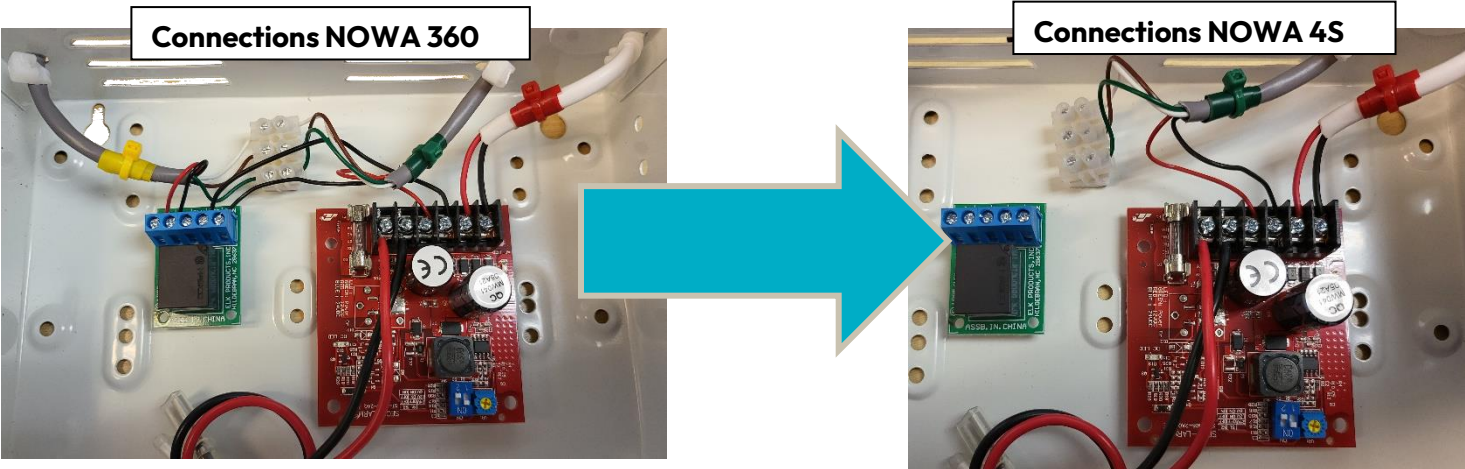
Butterfly Valve connection with NOWA 360 & Backup batteries			
Wire named "Valve Controller"	Terminals Valve Controller	Wire named "Valve" Butterfly	Valve Motor Wire
Green	Left screw – input 1	Green	Black/Pink
Brown	Left screw – input 2	Brown	Black/Blue
White	Right screw – input 2	White	Black/Red
Black	Left screw – valve 1	Black	Black
Red	Right screw – valve 1	Red	Red

NOWA 4S connection

Using the backup battery with a NOWA 4S is different. The backup battery will only power the NOWA 4S panel. The valve should be connected directly to the valve terminal on the wall bracket, as a standard valve would be connected.

For the battery backup to be functional in this type of configuration, you will need to do the following changes inside the battery backup:

- The red conductor of the wire named “valve” must be connected to the “DC +” terminal of the red printed circuit board.
- The black conductor of the wire named “valve” must be connected to the “DC -” terminal of the red printed circuit board.



Only one of the wires will be used: the wire named “valve.” The green, brown and white conductors of the wire named “valve” will not be used. Only the black and red conductors will be connected to power the NOWA 4S. The transformer included with the control panel will not be used since the backup battery will replace it.

For the wire named "Valve Controller," you can disconnect it and use it to extend your valve wire as needed.

Butterfly Valve connection with NOWA 4S & Backup battery			
Wire named “valve”	4S Wall Bracket	Butterfly valve motor wire	4S Wall Bracket
Green	NA	Black/Red	1
Brown	NA	Black/Pink	2
White	NA	Black/Blue	3
Black	12	Black	13
Red	11	Red	14

