



# Remote Dry Contact controlled Motor for Ball Valves

SKU: BVSDRY02

Version: 1.0

## Product Description

This motor converts existing and installed ball valves into intelligent water control devices. Thanks to the innovative clamp mechanism, it can be installed on shut-off valves with a pipe diameter between 0.5 and 1.5 inches within minutes, without the need for additional tools, and can be removed just as easily. A patented coupling mechanism allows for torques of up to 8 Nm, enabling it to function even with rusty and old valves.

The servo motor is waterproof and can be used in damp, dirty, and outdoor environments. In the open position, the motor automatically performs valve training once a week (closing/opening by 1/8 turn to remove dirt and scale). The device is also capable of measuring the rotation angle and detecting the end positions of the lever. It approaches the end positions slowly to avoid friction and unnecessary mechanical stress. It is powered by an external 12V power supply through a waterproof coupling.

The device is controlled either through the local button or a switch input on the 'Dry Contact Controller.' The connection between the Dry Contact Controller and the



actual motor is established through an encrypted LoRa wireless connection. This robust wireless technology allows for seamless motor control through multiple walls or in the garden.

## Scope of Delivery

- Motor Servo
- Power Supply (EU)
- external wired flood sensor (equal to ALIXXX01)
- Dry Contact Controller (equal to DRYLWE02)

## Technical Data

- Dimensions 14.8 x 9.6 x 13.3mm
- Weight BVS Unit: 603g
- Motor Torque Power Adaptive torque output max: 7 Nm
- Peripherals and Interfaces of the motor
  - Temperature Sensor Built-in MCP9700x, Range from -40°C to +125°C / (-40°F to +257°F)
  - Action Button Touch Sense Button x 1
  - LED Indicator 3 colors LED. (Green, Yellow & Red)
  - Sound Indicator Buzzer (Max. 85dB)
- Wireless Connection between Motor and Controller:
  - Spec: LoRa P2P
  - SF: 9, coding 4/5
  - Frequency: EU868
  - Range: > 2km (TX 22 dB)
- Protection: IP 20 for controller and motor power supply, IP67 for motor
- GPIOs of controller
  - Output: max. 20 mA
  - Input: min. 10 uA
- Power consumption
  - Dry Controllers
    - Sleeping: 30 uA
    - RX: 8.5 mA
    - TX: 87 mA (@ 20 dbm 868 MHz)
  - Motor
    - Power Supply AC-DC: AC (110V 60Hz / 220V 50Hz); DC (12V / 1A)
    - Power Consumption Standby: ~10mA @ 12VDC = 0.12W
    - Full Operation: Max ~700mA @ 12VDC = 8.4W
- Environmental Conditions and Trading
  - Shipment/Storage: -30 °C ... +70 °C
  - Operation: - 20 °C ... 60 °C
  - Outdoor Use: IP67 (to power supply coupling), Power Supply is IP20