



Motor Servo for Ball Valves

SKU: BVSLWE01

Version: 1.0.0



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.

Incorporating an additional water sensor directly connected to the device enhances functionality, enabling the motor to serve as a leak protection system without the



need for further configuration or wireless connectivity.

Control is facilitated through local buttons, and remote operation is achieved through LoRaWAN commands. The device functions as a LoRaWAN Class C device, necessitating LoRaWAN network coverage for optimal performance. In the absence of existing coverage, the alternative is to set up and operate a dedicated LoRaWAN gateway. For direct coupling to an AQSWIE01 please use BVSLWE02.

Scope of Delivery

- Motor with power cable
- 1 * wired flood sensor pad
- 12 V Power Supply

Technical Data

- Model No. BVSLWE01 (EU)
- Dimensions 14.8 x 9.6 x 13.3mm
- Weight BVS Unit: 603g
- Body Color White
- Motor Torque Power Adaptive torque output max: 7 Nm
- Waterproof and Dustproof IP66 level / Outdoor deployment
- LoRaWAN
 - LoRa Module SX 1261
 - Region Frequency EU: 868.42 & 869.85MHz
 - Activation: OTAA
 - LoRaWAN Class: C
 - LoRaWAN Version: 1.0.2
- Peripherals and Interfaces
 - Water Leak Sensor Local Water Leak Sensor Probe
 - 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)
- Power
 - 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
 - UN Customs Tariff: 85011093900