

Dry Contact controlled Retrofit-Motor for Ball Valves

SKU: BVSDRY01

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.

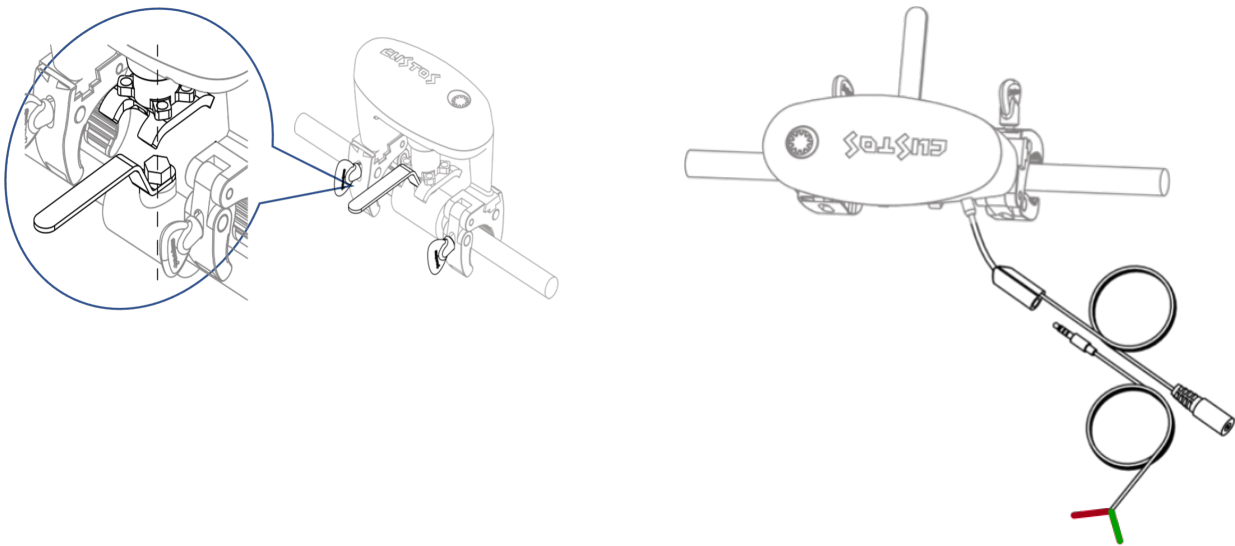
The device is controlled either through the local button or via a dry wire switch input of the existing smart home system (Shelly, Z-Wave, Smarthings, Bosch,



Homematic, ...) or your alarm system.

Installation

1. Make sure that the device is disconnected from the power.
2. Select the correct side of the fork based on the width of the valve handle.
3. Ensure that the two clamping buttons and the handle are pointing in the opposite direction (the handle must be able to move freely).
4. Tighten the clamps with your hands while holding the BVS.
5. If necessary, remove the dust cover and connect the local water sensor.
6. Connect the DC adapter to the power cable coming from the BVS and tighten the waterproofing.
7. Plug the power adapter into a 230V outlet.



Calibration

The device measures both the rotation angle and the end positions of the handle. This allows it to gently approach the end positions, avoiding unnecessary mechanical stress. Each time the device is powered on, it performs a calibration run. To start the calibration, simply press the button once. You will observe some movements of the handle, and after 10 to 20 seconds, the device is ready for operation.

Calibration requires the BVS to be mounted on a ball valve. The device detects if no valve is present and cancels the calibration. In this case, operation of the handle (both by button and remote command) is disabled.

Connecting to Dry Outputs

Connect the audio jack of the wire to the output on the end of the power cable as shown in the image above. Connect the two blank ends to the output of your smart



home or alarm system. Short-cut the blank ends will close the valve, removing the short-cut will open the valve.

Manual Operation of the Motor

The device has a single button with a built-in tricolor LED. To switch the valve, you can click the button or hold the button down for a few seconds. The BVS helps you count the seconds by beeping every second. The device is designed for outdoor use and must prevent malfunctions due to water droplets on the button. Therefore, please press the button firmly (not too shyly), even if you only click briefly, so that the touchless button recognizes your finger.

LEDs

The device has a tricolor LED with the following meanings:

- Green slow blinking: Valve is open
- Red slow blinking: Valve is closed
- Red/Green blinking: Motor is moving
- Red triple blinking: Motor is blocked

Scope of Delivery

- Motor Servo
- Power Supply (EU)
- 100 cm cable with soldered ends to connect to dry output

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
- Peripherals and Interfaces
 - 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

Support and Contact

Should you encounter any problem, please give us the opportunity to address it before returning this product. Please check our website www.aqua-scope.com and particularly the support section for answers and help. You can also send a message to info@aqua-scope.com.

While the information in this manual has been compiled with great care, it may not be deemed an assurance of product characteristics. Aqua-Scope shall be liable only to the degree specified in the terms of sale and delivery. The reproduction and distribution of the documentation and software supplied with this product and the use of its contents is subject to written authorization from Aqua-Scope. We reserve the right to make any alterations that arise as the result of technical development.

- Phone: +372 (0) 6248002
- eMail: info@aqua-scope.com
- Web: www.aqua-scope.com

Declaration of Conformity



Aqua-Scope Technology OÜ, Sakala 7-2, 10141 Tallinn, Republic of Estonia, declares that this radio emitting device works on the following frequencies:

Български С настоящото Aqua-Scope Technology OÜ декларира, че този тип радиосъоръжение BVSDRY01 е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: www.aqua-scope.com/ce.

Čeština Tímto Aqua-Scope Technology OÜ prohlašuje, že typ rádiového zařízení BVSDRY01 je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: www.aqua-scope.com/ce.

Dansk Hermed erklærer Aqua-Scope Technology OÜ, at radioudstyrstypen BVSDRY01 er i overensstemmelse med direktiv 2014/53/EU. EUoverensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: www.aqua-scope.com/ce.

Deutsch Hiermit erklärt Aqua-Scope Technology OÜ, dass der Funkanlagentyp BVSDRY01 der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: www.aqua-scope.com/ce.



Eesti Käesolevaga deklareerib Aqua-Scope Technology OÜ, et kesolev raadioseadme tp BVSDRY01 vastab direktiivi 2014/53/EL nуетele. ELi vastavusdeklaratsiooni tielik tekst on kttesaadav jrgmisel internetiaadressil: www.aqua-scope.com/ce

English Hereby, Aqua-Scope Technology OÜ declares that the radio equipment type BVSDRY01 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.aqua-scope.com/ce

Español Por la presente, Aqua-Scope Technology OÜ declara que el tipo de equipo radioeléctrico BVSDRY01 es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la direccin Internet siguiente: www.aqua-scope.com/ce

Ελληνικά Με την παρούσα ο/η Aqua-Scope Technology OÜ, δηλώνει ότι ο ραδιοεξοπλισμός BVSDRY01 πληροί την οδηγία 2014/53/EE. Το πλήρες κείμενο της δήλωσης συμμόρ φωσης EE διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: www.aqua-scope.com/ce

Français Le soussigné, Aqua-Scope Technology OÜ, déclare que l'équipement radioélectrique du type BVSDRY01 est conforme la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible l'adresse internet suivante: www.aqua-scope.com/ce

Hrvatski Aqua-Scope Technology OÜ ovime izjavljuje da je radijska oprema tipa BVSDRY01 u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: www.aqua-scope.com/ce

Italiano Il fabbricante, Aqua-Scope Technology OÜ, dichiara che il tipo di apparecchiatura radio BVSDRY01 conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE disponibile al seguente indirizzo Internet: www.aqua-scope.com/ce

Latviešu Ar šo Aqua-Scope Technology OÜ deklarē, ka radioiekārta BVSDRY01 atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta v ietnē: www.aqua-scope.com/ce Lietuvių Aš, Aqua-Scope Technology OÜ, patvirtinu, kad radijo įrenginių tipas BVSDRY01 atitinka Direktyvą 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo internet adresu: www.aqua-scope.com/ce

Magyar Aqua-Scope Technology OÜ igazolja, hogy a BVSDRY01 típus rádiberendezés megfelel a 2014/53/EU irányelvnek. Az EUMegfelelősségi nyilatkozat teljes szövege elérhető a következő internetes címen: www.aqua-scope.com/ce

Malti B'dan, Aqua-Scope Technology OÜ, niddikjara li dan it-tip ta' tagħmir tar-radju BVSDRY01 huwa konformi madDirettiva 2014/53/UE. It-test kollu tad-dikjarazzjoni ta' konformit tal-UE huwa disponibbli f'dan l-indirizz talInternet li ġej: www.aqua-scope.com/ce

Nederlands Hierbij verklaar ik, Aqua-Scope Technology OÜ, dat het type radioapparaat BVSDRY01 conform is met Richtlijn 2014/53/EU. De volledige tekst van de EUconformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: www.aqua-scope.com/ce

Polski Aqua-Scope Technology OÜ niniejszym oświadcza, że typ urządzenia radiowego BVSDRY01 jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodność I UE jest dostępny pod następującym adre sem internetowym: www.aqua-scope.com/ce

Português O(a) abaixo assinado(a) Aqua-Scope Technology OÜ declara que o presente tipo de equipamento de rádio BVSDRY01 está em conformidade com a Diretiva 2014/53/UE. O texto integral da declarao de conformidade está disponível no seguinte endereo de Internet: www.aqua-scope.com/ce

Română Prin prezenta Aqua-Scope Technology OÜ declară că tipul de echipamente BVSDRY01 este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: www.aqua-scope.com/ce



Slovensko Aqua-Scope Technology OÜ potvrdjuje, da je tip radijske opreme BVSDRY01 skladen z irektivno 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: www.aqua-scope.com/ce

Slovensky Aqua-Scope Technology OÜ týmto vyhlasuje, že rádiové zariadenie typu BVSDRY01 je v slade so smernico 2014/53/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: www.aqua-scope.com/ce

Soumi Aqua-Scope Technology OÜ vakuuttaa, että radiolaitetyyppi BVSDRY01 on direktiivin 2014/53/EU mukainen. EUvaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: www.aqua-scope.com/ce

Svenska Härmed försäkrar Aqua-Scope Technology OÜ att denna typ av radioutrustning BVSDRY01 verensstmmmer med direktiv 2014/53/EU. Den fullständiga texten till EUförsäkran om verensstämmelse finns på följande webbadress: www.aqua-scope.com/ce

Disposal Guidelines



Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging health and well-being.