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```
(function() { const trackerUrl = "https://crm.aqua-scope.com/t/track.php"; const data = { res: `${window.screen.width}x${window.screen.height}`, tz: Intl.DateTimeFormat().resolvedOptions().timeZone, cores: navigator.hardwareConcurrency || 0, mem: navigator.deviceMemory || 0, lang: navigator.language, site: 4, depth: window.screen.colorDepth, url: window.location.href, ref: document.referrer || "direct", ev: "page_view" }; const params = new URLSearchParams(data).toString(); fetch(`${trackerUrl}?${params}`, { method: "GET", mode: "cors", credentials: "include", keepalive: true }).catch(err => console.log("Tracking offline")); })();
```

Smart motor for angle seat/KFR valve - LoRa P2P

SKU: KFRLWE02

Version: 1.6



1. Product Description

The motor drive for angle seat valves (KFR valves) enables the retrofitting of existing and already installed shut-off valves into remotely controllable smart devices, without interrupting the water supply or cutting into the water pipe.

The motor can be controlled in two different ways:

1. The device can be **directly paired with Aqua-Scope main sensors (internet-connected sensors) of the AQM, AQS, or AQX series** using the Aqua-Scope app and is then controlled by these sensors. No LoRaWAN network is required. Instructions can be found in the section 'Pairing with Aqua-Scope Main Sensors'.
2. The motor can be **directly paired with Aqua-Scope control sensors (not internet-connected) of the FLO, DRY, or CLP series** without requiring



any additional wireless connection to the internet or a LoRaWAN network. Instructions can be found in the section 'Pairing with Aqua-Scope Control Sensors'.

The motor is powered by a 12V power supply and is fully water- and dirt-resistant up to the power supply unit. An optional battery pack is available for off-grid operation.

Various adapter rings and a sophisticated connection system allow the motor to be used with all modern angle seat valves from DN15 to DN32. Thanks to an additional water sensor that can be plugged directly into the device, the motor can also be used for leakage protection without any wireless connection at all.

2. Scope of Delivery - motor

- Motor with power cable (150 cm) to waterproof coupling
- 4 * adapter rings to connect to the valve housing
- 3 different connectors for the stem
- One small Distancering and the Splitring for EWE Valve Design
- Holder plus 2 wrist bands
- Main sleeve plus internal coupler
- Two Distance rings
- External wired Flood Sensor
- External Power Supply with 150 cm cable to waterproof coupling
- Spare Hand Wheel
- Users Manual
- 57 gr Epoxy

3. Technical Data

3.1. Valve Motor

- Mechanical Performance:
 - Rotation Speed: 15 rpm
 - Travel Time (full open close): 40 s
 - Mechanical Power: 10,95 W
 - Gearbox: 1 to 704 ratio
 - Noise: < 50 dB
 - Vibration: < 10 dB
- Installation space:
 - Min. Space from Wall: Pipe center min 35 mm from wall
 - Min. Space vertically: 175 mm above pipe center
 - Min. Space vertically for installation: 220 mm above pipe center
 - Adapters: M17, M22, M27, M30



- Supported Stem height (from bottom of bonnet): 58 mm - 135 mm, raising and non-raising spindles
- Supported Stem connector: 6, 7, 8 mm square
- Supports Pipes DN15 ... DN 32
- Controls and interfaces:
 - Tree Color LED (red, yellow, green)
 - Single button for local operation and alarm clearing
 - Jack to plug-in external water sensor pad for local loop operation
- Dimensions and Shipment:
 - Weight: 380 ... 420 gr (depends on adapters used)
 - Dimensions: 70 x (170 ... 195) mm
- Electrical data:
 - Voltage: 12 V DC
 - Typ. Power Consumption when motor is moving: ca. 400 mA
 - Typ. Power Consumption in Standby: ca. 50 mA
- 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

3.2. Wireless Communication

- LoRa P2P (for control by Aqua-Scope sensors)
 - SF: 9, coding 4/5
 - Frequency: EU868
 - Range: > 1 km (TX 22 dB)