



# Leakage-Protection Offline for Gate Valves

SKU: KFRFLO01

Version: 1.0

## Product Description

The offline leakage protection system 'KFRFLO' detects water leaks using multiple water sensors distributed throughout the house and shuts off the water supply in the event of a leak. The unique feature of this system is that **it does not require an app, internet, or Wi-Fi.**

The retrofit motor is installed in place of the handwheel on the main shut-off valve. The product bundle includes three battery-operated water sensors that are paired with the motor and distributed around the house.

Communication between the sensors and the motor uses the highly reliable, standardized LoRa wireless technology, specifically designed for such applications. No additional equipment like a gateway is needed. All sensors communicate directly with the motor in case of an alarm, making the system installation very straightforward.

In the event of an alarm, the affected sensor emits a loud audible signal and flashes red. The motor shuts off the water, also emitting an audible signal and flashing red. The alarm can be cleared, and the water turned back on by pressing the button on the motor.

## Technical Data - flood sensor



- Platform: STM32WLE5CCU6
- Wireless Connection:
  - LoRa point-2-point
  - SF 9, coding 4/5
  - Frequency: EU868
  - Range: > 2km (TX 22 dB)
- Battery: CR123
- Protection: IP 54
- Sensor-Pad
  - Height: 7 mm
  - Connection: Audio Coaxial
  - Kabel-Length: 110 mm
  - Protection: IP 67
- Environmental Conditions
  - Shipping and Storage: -65 °C ... 125 °C
  - Operation: - 40 °C ... 85 °C
  - Humidity: 0...90 %
- Dimensions: 65 x 65 x 32 mm
- Weight (without Battery): 90 gr.

## Technical Data - motor

- SKU: KFRLWE01
- EAN: 4251295783 277
- 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
- RF Communication LoRaWAN
  - Radio Chip: SX 1261



- Standard: Class C
- Frequency: 868...869 MHz, other frequencies such as US configurable
- Range: 150 ... 200 m (depends on gateway)
- Network Joining: OTAA
- Dimensions and Shipment:
  - Weight: 380 ... 420 gr (depends on adapters used)
  - Dimensions: 70 x (170 ... 195) mm
- Electrical data:
  - Voltage: 12 V DC
  - Max. Current: < 1000 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

## **Scope of Delivery - flood sensor**

- Water Sensor
- Bracket
- 1 x CR123 battery
- One external flood sensor with cable
- 1 x screw and dowels
- Manual

## **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