Aqua-Meter Clamp with Wi-Fi

SKU: AQMWIE01
Version: 1.0

Product Description

The Aqua-Meter Clamp measures the flow and temperature in a water pipe using a "Time of Flight" measurement method and transmits the data wirelessly. It is easily attached to the existing water pipe from the outside without the need to interrupt the water supply. The best position is right after the water meter. Due to adjustable transducer positions and innovative software the Aqua-Meter Clamp works with pipe diameters between 15 and 50 mm and it supports all contemporary pipe materials such as PEX, PEX AL, copper, PE, or steel. It registers water consumption from approximately 1 liter/hour and it distinguishes between normal water usage, dripping faucets, stuck toilets, pipe breaks, etc. And alerts the user.

The device meets all the requirements of the European Metering Directive (MID). With a footprint of only 60 mm above the water pipe and a length of 110 mm, the device is very slim and short, making it easy to find a suitable spot to install.

The Aqua-Meter Clamp can be powered either by an USB-C or by two standard AA batteries. Whenever an external power source is available, it is used independently of the inserted batteries.

Control of the system is centralized through a mobile phone app using WiFi communication. Furthermore, data can be transmitted to an MQTT server or an HTTP 'webhook,' facilitating integration with modern Smart Home systems.

Scope of Delivery

- Measurement clamp main unit (batteries not included)
- USB-C power cable and adapter
- 2 additional contact pads
- 2 * Cable ties for installation
- 2 * Adapters for pipe diameters 15, 20, 25, 32, 40, 50 mm each

Technical Data - Part 1

- Identification:
  - SKU: AQMWIE01
  - EAN: 4251295783 – 444
- Power Supply:
  - Alternative of parallel: ext. power supply or battery
  - Power Supply: 5V/2A USB-C
  - Battery: 2 * AA, replaceable
- Communication:
  - WLAN IEEE 802.11b/g/n (2.4 GHz WIFI)
    - Aqua-Scope Cloud Protokol
    - MQTT Client
    - JSON Webservice Client
  - Bluetooth 5 (LE): UART Profile
- Local Usage:
  - one Button
  - 3 Colored LEDs (red/green/yellow)
- Sensing Technology:
  - Approach: differential "Time-of-Flight"
  - Frequency of Signal: 1 MHz Ultrasonic
  - Strength of Signal: -7.5 ... 30 dB (calibrated)
- Supported Pipe Diameters/Materials
  - Diameter Plastics: 15 ... 50 mm
  - Diameter Metall: 15 ... 32 mm
  - Pipe Materials: PEX, PEX AL, Steel, Copper, PP, PE
- Dimensions/Weight:
  - 110mm x 60mm x 40mm
  - Weight: 310 gr. (without Batteries)
  - Protection: IP 44
  - Storage/Transport: 0 ... 40 C, 10 ... 90 % RH

Technical Data - Part 2 (MID/OIML-R49)

- Pressure: PN10 (Pipe dependent)
- Temperature: 0.1°C ... 70°C (T70)
- Overload flow rate (Q4): 3 125 l/h
- Electrostatic Class: E1 (residential, commercial, light industrial)
- Climate Class: 5°C ... 30°C in condensating/damp environment
- Environmental Class: B (MID), fixed installation with minimal vibrations