



#### CONTENTS

- 3 QALCOSONIC W1
- 4 QALCOSONIC E3
- 5 QALCOSONIC F1 (IP68)
- 6 QALCOSONIC F1 (IP65)
- 7 QALCOSONIC F2
- 8 QALCOSONIC E1
- 9 QALCOSONIC E2
- 10 QALCOMET E1







# **QALCOSONIC W1**

### SMART ULTRASONIC WATER METER

Ultrasonic water meter QALCOSONIC W1 is designed for accurate measurement of cold and hot water consumption in households, apartment buildings and small commercial premises.

- Static method of water consumption measurement, no moving parts.
- Eliminates measuring deviations caused by sand,

- suspended particles or air pockets.
- High accuracy calculation of water consumption.
- Long-term measurement stability and reliability.
- Sensitive and accurate in low flows, down to 1l/h.
- Wide measurement range Q3/Q1 = R 250/400/800 (optional).
- Maintenance free device, battery lifetime > 16 years.

- 9 digits, multi-line LCD.
  Total volume and instantaneous flow rate indication.
- Flow direction indication.
- Measurement units: m³m³/h. Gal-GPM. ft³-ft³/h.
- Durable composite body.
- Nominal flow 1.6 / 2.5 / 4.0 m<sup>3</sup>/h.
- Temperature class T30, T30/90, T90.

- Nominal pressure PN16.
- Bi-directional flow measurements.
- Installation in any position.
- Metering archive registration.
- Protection class IP68.
- Strainer and back flow valve (optional).
- Ready for IoT and AMR, NFC, LoRa technology.







## **QALCOSONIC E3**

### ULTRASONIC HEATING AND COOLING ENERGY METER

QALCOSONIC E3 is designed for commercial accounting of heating and cooling energy when heating media is water and is used in centrally heated objects: residential houses or heat supply objects.

- MID DN15-DN100.
- Flow of heating media is measured using ultrasound method.
- Heating and cooling energy is recorded in separate registers.
- Meter parameters may be configured by the user: mounting position supply/return, measurement units, pulse inputs/outputs, heating media, clock configuration and other parameters.
- Dual communication modules:
  - M-Bus, MODBUS RTU, MiniBus, BACnet, LoRA; Wireless M-Bus modes: AXI, S1 or T1 OMS.
- Rotatable electronic unit can be mounted

- separately from the flow part.
- Mounting in any installation position.
- Extended registers for reporting hourly, daily and monthly values up to 36 month.







# QALCOSONIC F1 (IP68)

### **ULTRASONIC WATER METER IP68**

Ultrasonic water meter QALCOSONIC F1 (IP68) is designed for measurement of cold and hot water consumption in households and blocks of flats well as industry. Static water measurement method.

- MID DN15-DN100.
- Flow is measured using ultrasound method.
- Complies with the European Standard EN 14154 and requirements of OIML.
- Nominal pressure PN16/25 bar.

- Dynamic range R250/400.
- Two universal pulse inputs/outputs.
- Communication modules:

M-Bus/CL, MODBUS RS485 RTU; Wireless M-Bus modes: AXI, S1 and T1 OMS.

- Power supply: internal battery (default) or external power supply.
- Temperature class T30, T30/90, T90.







# **QALCOSONIC F1 (IP65)**

### **ULTRASONIC WATER METER IP65**

Ultrasonic water meter QALCOSONIC F1 (IP65) is designed for measurement of cold and hot water consumption in households and blocks of flats well as industry. Static water measurement method.

- MID DN15-DN100.
- Flow is measured using the ultrasound method.
- Complies with the European Standard EN 14154 and requirements of OIML.
- Protection class IP65/IP67.
- Nominal pressure PN16/25 bar.

- Dynamic range R250/400.
- Two universal pulse inputs/outputs.
- Communication modules:

M-Bus/CL, LON, MiniBus, MODBUS RS485; Wireless M-Bus modes: AXI, S1 and T1 OMS.

- Power supply: internal battery or external power supply.
- Temperature class T30, T30/90, T90.









## **QALCOSONIC F2**

### **ULTRASONIC LIQUID FLOW SENSOR**

QALCOSONIC F2 is designed for measuring of fluid flow and conversion in to a rated electrical signal. It is used for the accounting of the amount of various liquids as well as a component of heat or water meters in boiler houses, residential houses, companies or organizations, etc. Standard pulse output.

- MID DN15-DN100.
- Accuracy class: 2 (or class 1 – when ordered separately) in accordance with LST EN 1434:2000.
- Protection class: IP65 (IP67 – may be ordered by request).
- Ambient temperature: 5 °C to 55 °C.

- Relative humidity: up to 93 %.
- Temperature of conveying liquid: Max temperature +130/150 °C.
- Nominal pressure PN16/25 bar.
- Resistant to the impact of external magnetic field.
- Automatic diagnostics mode.
- Mounting in any installation position.
- No straight sections required up to DN50.
- Pulse output value is freely programmable.









## **QALCOSONIC E1**

#### UTRASONIC HEAT METER/COOLING ENERGY METER

QALCOSONIC E1 is designed for commercial accounting of heating and cooling energy when heating media is water. This meter is used in centrally heated objects (residential houses, companies and organizations, heat supply objects, etc.).

- MID DN15-DN100.
- Flow of heating media is measured using ultrasound method.
- Heating and cooling energy is collected and recorded in separate registers.
- Two universal pulse inputs/outputs.

• Communication modules: M-Bus,

CL (Current loop), MODBus RTU, BAC net,

LoRa,

MiniBus;

Wireless M-Bus,

modes:

AXIS, S1 and T1 OMS.

Tariff functions.

- Programmable yearly and monthly reporting dates.
- Power supply: internal battery or external power supply.
- Selectible fluid type.
- Electronic unit can be mounted separately from flow part.
- Mounting in any installation position.









## **QALCOSONIC E2**

#### **ULTRASONIC HEAT METER**

Ultrasonic heat and flow meter can be used for measurement of consumed heat energy and heating medium (or other fluid) quantity in closed or open loop heating and water consumption systems.

- MID DN15-DN400.
- Two flow measurement channels.
- Two pressure measurement channels.
- Two pulse inputs for additional flow sensors.
- Cold water temperature constant may be programmed individually for each month.
- Integrated regulation or alarm functions.

- Internal archive of measurement data.
- Power supply to the device from the internal battery or a 230 V AC network.
- Selectible communication modules:

Wireless M-Bus modes: AXI, S1 and T1 OMS; M-Bus, RS232, RS485, M-Bus/RS232/CL current output,

- BAC net, M-bus/RS232/CL pulse output, MODBus RTU, MiniBUS.
- The parameters shown may be configured in accordance with the customer's needs.







## **QALCOMET E1**

### **HEAT METER CALCULATOR**

QALCOMET E1 is a component of heat meter, together with flow and temperature sensors, is designed for commercial accounting of energy used for heating (or cooling) and of heating media in closed or open type heating (cooling) systems in residential houses, companies, organizations or heat supply objects.

- MID DN according to choice.
- May be used for accounting of several independent heating systems.
- The parameters shown may be configured in accordance with the customer's needs.
- 5 inputs for measuring flow and temperature.

- 2 pressure measurement channels.
- Power supply from the internal battery or a 230 V network.
- Optional integrated regulation or alarm functions.
- Two configurable pulse-frequency outputs.
- Configurable double relay output for limiting regulation or alarm function.
- M-Bus/CL/RS232/RS485/ MODBUS RTU
- Wireless M-Bus modes: AXI, S1 and T1 OMS.

