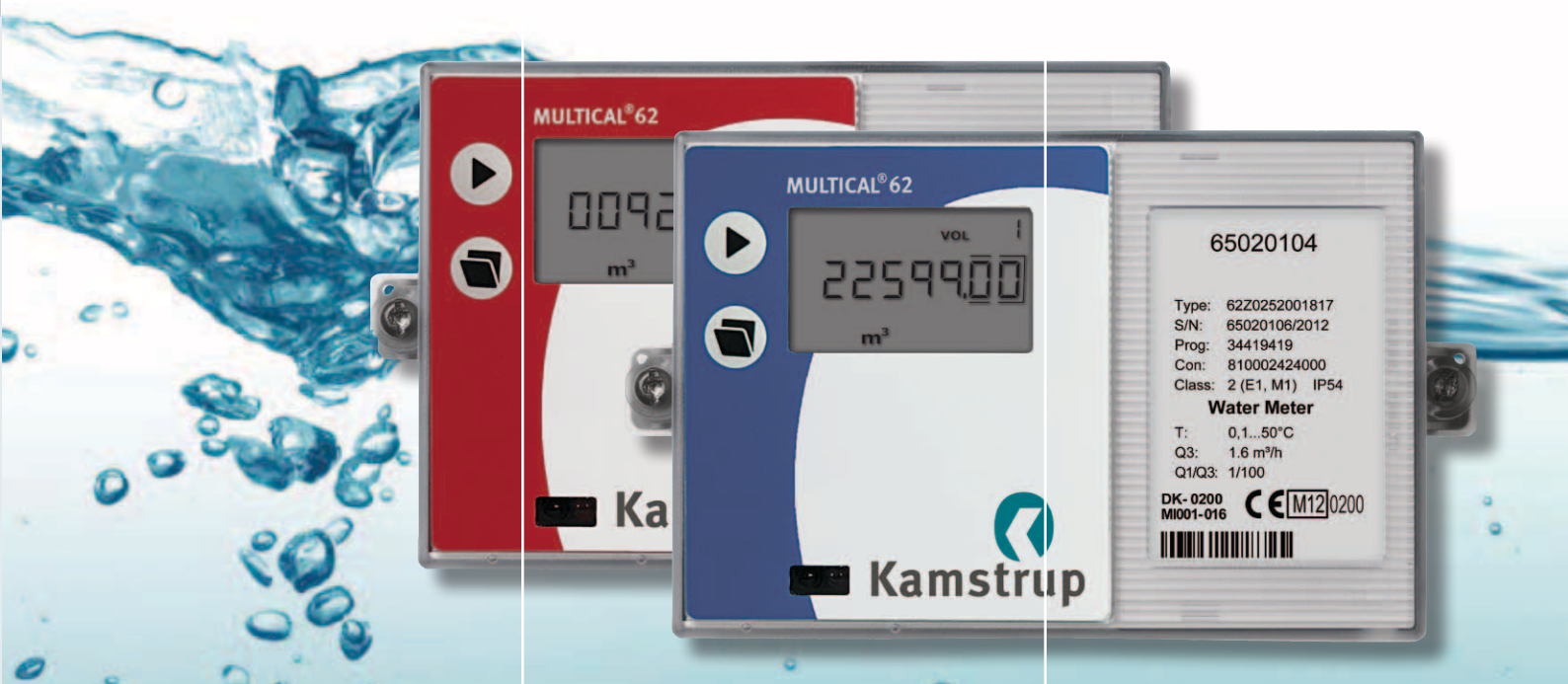


# MULTICAL® 62

Consumption measurement of cold and hot water for trade, industry and housing



## Ultrasonic water meter

MULTICAL® 62 is your guarantee for pinpoint measuring accuracy and longevity. The ultrasonic sensor has no moving parts, which makes it resistant to wear. Thus, by contrast to a traditional mechanical meter, MULTICAL® 62 maintains low start and stop flows during its entire lifetime. In this way MULTICAL® 62 guarantees that the water consumption of the individual household and company is accurately registered, thus ensuring that both the consumer and the utility can always be confident that their billing is reliable.

## Complete communication

gives you freedom to select a wired solution via LON, SIOX, M-Bus, Metasys N2 or Ethernet/IP. If MULTICAL® 62 is to be integrated in a wireless network you select remote reading via radio, Wireless M-Bus, ZigBee, GSM/GPRS or High-Power RadioRouter. The complete range of communication modules makes it easy for you to read the meter in any application. Furthermore, MULTICAL® 62 can be integrated in a combi-solution, in which the consumptions of water, gas, electricity and/or heat are read and billed via one and the same network.

## Measurable savings

are your direct gains by reading and billing your water consumption with pinpoint accuracy. MULTICAL® 62 registers leaks and untightnesses, enabling the consumer to correct the error and avoid an expensive water bill. The battery lifetime of MULTICAL® 62 is up to 13 years, and together with the meter's unique combination of pinpoint measuring accuracy and longevity this secures minimal yearly operating costs.





## MULTICAL® 62

### – Water metering with pinpoint measuring accuracy

#### The compact water meter MULTICAL® 62

MULTICAL® 62 is a water meter consisting of the flow sensor ULTRAFLOW® 24 and the calculator MULTICAL® 62. Flow sensor and calculator are connected via 2.5 m pulse cable, which can be extended up to 10 m by means of a Pulse Transmitter. MULTICAL® 62 is used together with ULTRAFLOW® 24 for measurement of volume.

The meter has been tested and approved according to MID (OIML R 49) and is a so-called compact meter. In practice this means that the signal cable must not be broken. If flow sensor and calculator are separated and the seals are, therefore, broken, the meter must be reverified in order to be valid for billing purposes and renew the factory guarantee.

#### The calculator MULTICAL® 62

Kamstrup's water meters are based on state-of-the-art water technology. The advanced calculator, MULTICAL® 62, is used together with ULTRAFLOW® 24 for measurement of volume. The volume calculations are data logged and can be read directly from the display or through remote reading in a wireless network.

MULTICAL® 62 has built-in RTC (Real Time Clock) and can be fitted with two modules at a time, for example pulse output and

radio. Thus, the meter can be adapted to any application and data reading system.

The meter monitors a number of key functions such as power failure, leakage, burst, wrong installation, and an error hour counter displayed in the form of info codes.

#### The flow sensor ULTRAFLOW® 24

ULTRAFLOW® 24 comprises flow sensors between Q3 1.6 and Q3 40 m³/h. Flow sensors in sizes Q3 1.6 up to and including Q3 10 m³/h are made of brass, whereas flange sensors in sizes DN50, DN65 and DN80 are made of stainless steel. The flow sensor is used for metering domestic water with temperatures from 0.1°C to 50°C and 0.1°C to 90°C.

The flow sensor is based on ultrasonic measurement, a long-term stable and accurate measuring principle, which guarantees the highest measuring quality and reliability on the market. As protection against condensation water the flow sensor is without electronics. All circuits for calculation of flow measurement are placed in the calculator base which is mounted at a distance from the condensation on the pipes. Therefore, MULTICAL® 62 is resistant to humidity.

## Types of communication





## High demands require high standards

### Ultrasonic measurement

Contrary to traditional water meters, the static ultrasonic water meter MULTICAL® 62 is not exposed to wear due to impure water. More than 20 years' experience has proved that the ultrasonic principle is most reliable in the long run. Two ultrasonic transducers are used to send sound signals with and against the flow respectively. The ultrasonic signal travelling with the flow reaches the opposite transducer first, and the time difference between the two signals can be converted into flow velocity and thereby also volume.

### Accuracy and long-term stability

The robust ultrasonic sensor for measurement of domestic water has no moving parts and is, thus, extremely accurate and reliable. MULTICAL® 62 measures with an accuracy, which is better than  $\pm 2\%$ , and the long-term stability and accuracy of the flow sensor are not influenced by the flow velocity. Even if the nominal velocity is doubled, the long-term stability and accuracy of the flow sensor remain unchanged.

### Leak surveillance

MULTICAL® 62 constantly monitors the water consumption. If the meter does not register minimum one hour a day without flow, this can indicate a leakage in the system. The warning system helps you to quickly discover water waste, thus reducing water consumption as well as expenses.

### Info codes

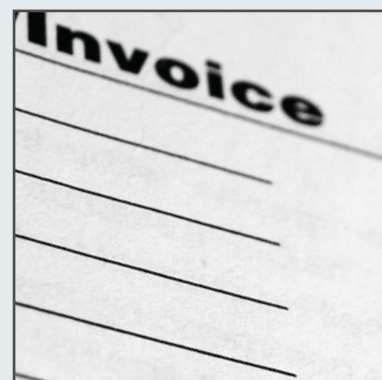
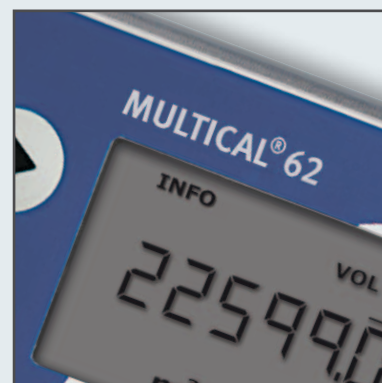
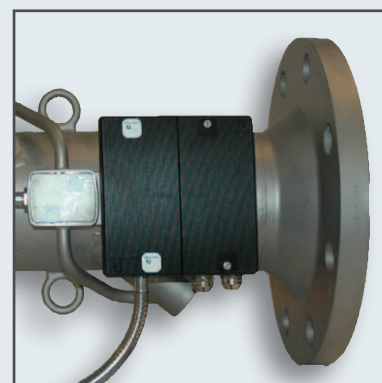
In case of power failure, leakage, burst, or if the flow sensor has been installed in the wrong flow direction an info code in the form of a flashing "INFO" appears in the display. An info-event counter displays the number of changes and an info logger saves the latest 50 changes, of which the 36 latest changes can be displayed. Finally, MULTICAL® 62 is fitted with an error hour counter which registers how many hours the info code has been active.

### Data loggers

MULTICAL® 62 saves yearly, monthly, daily, and hourly data with a logging depth of 15 years, 36 months, 460 days and 1392 hours respectively. Besides, the meter is fitted with a programmable data logger and info loggers. An analysis of these data loggers is the key to troubleshoot in connection with possible pressure loss, reveal manipulation of the meter, and analyse the consumption pattern with a view to reducing consumption.

### Billing

Guarantee for accurate meter data is decisive when it comes to the consumer's reliance in consumption billing. It gives consumer satisfaction and secures payments. The long-term stable and accurate ultrasonic water meter MULTICAL® 62 gives you optimum data security, and presents the consumer with a bill for the household's actual consumption and thereby a bill, in which the consumer has full confidence.





## Our ultrasonic metering solution – your **ultra**strong partner

Kamstrup is the world's leading producer of energy meters and system solutions for consumption measurement.

Our core areas are measurement of heat, cooling, water, electricity and gas. Furthermore, in co-operation with you we develop AMR and service solutions that are customized for your company.

We are represented in more than 60 countries worldwide by Kamstrup sales and subsidiary offices or by our distributors.

All employees work hard to offer your company the very best service and to respond to global market information on water and energy measurement provided by our trusted partners.

In this way we maintain a strong mutual co-operation.

### The Kamstrup brand

– when you demand quality, reliability, innovation and partnership.

