

MULTICAL® 62

Cold water metering 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 flows (flow cut-off) 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

It gives you the freedom to select between a number of wired solutions, for example LONWorks, SIOX, and M-Bus, and e.g. Wireless M-Bus can be selected if MULTICAL® 62 must be integrated into a wireless network. 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 combination, in which the consumptions of water, gas, electricity and/or heat are read and billed via a single network.

Measurable savings

Pinpoint accuracy gives you direct gains when reading and billing your water consumption. MULTICAL® 62 registers leakages 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

– cold water metering with pinpoint measuring accuracy

The compact water meter MULTICAL® 62

MULTICAL® 62 is a cold 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.

The meter has been tested and approved according to MID (OIML R 49) and is a so-called compact meter which means that the signal cable must not be cut or have been 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 direct 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, incorrect installation, and an error hour counter displayed in the form of info codes.

The flow sensor ULTRAFLOW® 24

ULTRAFLOW® 24 comprises flow sensors between Q_3 1.6 and Q_3 40 m³/h. Flow sensors in sizes Q_3 1.6 up to and including Q_3 10 m³/h are made of DZR brass, whereas flange sensors in sizes DN50, DN65 and DN80 are made of stainless steel. The flow sensor is used for metering cold water with temperatures from 0.1°C to 50°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.

MULTICAL® 62 has been approved according to Drinking Water Standards in Denmark, Germany, England and France.

Types of communication



* needs high power supply



High demands require high standards

Ultrasonic measurement

Contrary to traditional cold 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 a volume.

Accuracy and long-term stability

The robust ultrasonic sensor for cold water metering 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 cold water consumption. If the meter does not register minimum one hour a day without flow, this can be an indication of an untight faucet or a running toilet cistern. This 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 can be displayed. Finally, MULTICAL® 62 is fitted with an error hour counter which registers how many hours the info code has been active.

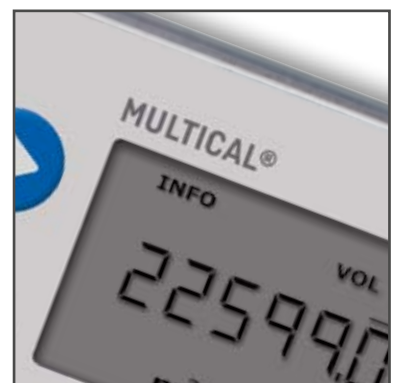
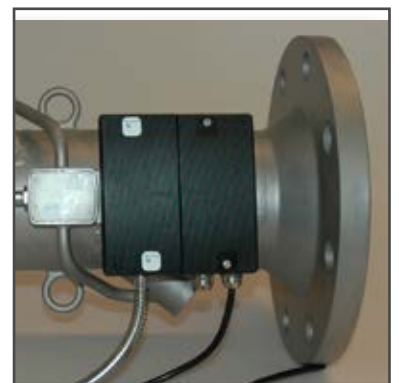
Data loggers

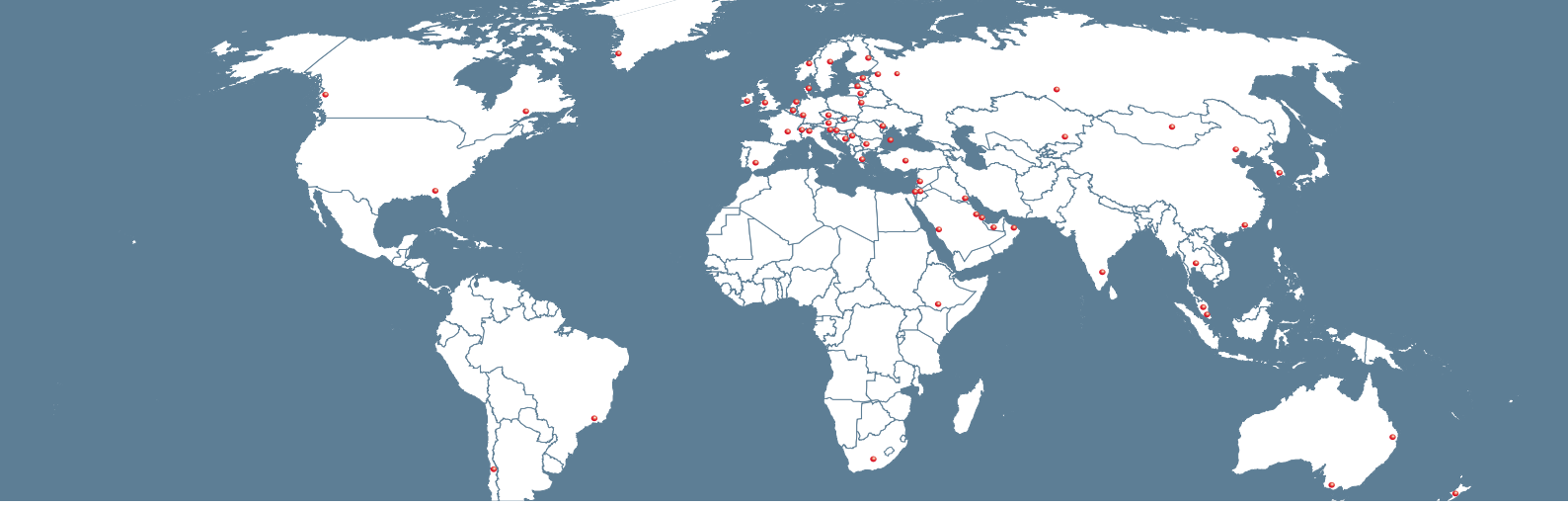
MULTICAL® 62 saves yearly, monthly, daily, and hourly data with a logging depth of 15 years, 36 months, 460 days and 1392 hours respectively. Besides, the meter is fitted with a programmable data logger and info loggers. An analysis of these data loggers is the key to troubleshooting in connection with 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.

MULTICAL® 62 is available as hot water meter too.





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 and electricity. 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.

Think forward

Kamstrup A/S

Industrivej 28, Stilling
DK-8660 Skanderborg
T: +45 89 93 10 00
F: +45 89 93 10 01
info@kamstrup.com
kamstrup.com