

MULTICAL® 21
& flowIQ® 2200

kamstrup

Raising the bar for residential water meters

- Ultrasonic precision from the very first drop
- Superior stability in the entire dynamic range
- Innovative acoustic leak detection
- Flexible remote reading including NB-IoT



Building on quality and innovation

Building on more than 30 years of experience, a solution from Kamstrup represents the next generation of smart metering. Our water meters are based on proven technology and provide modern water utilities with the data-based knowledge they need to bill consumers fairly, optimise operations, reduce non-revenue water and prioritise their efforts.

MULTICAL® 21



flowIQ® 2200



flowIQ® 2200



**flowIQ® 2200
NB-IoT**



Precision at the core

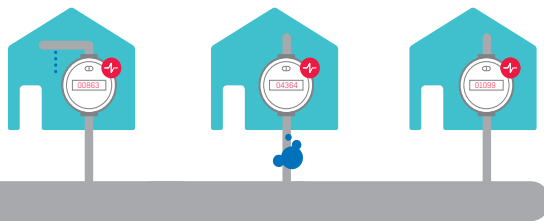
Thanks to an industry-leading accuracy and optimised low start flow, our meters measure even the smallest consumption. The meters are highly stable throughout the entire dynamic range with a very low error margin – and as static meters with no moving parts, they maintain a high and stable accuracy throughout the entire lifetime.

All of this ensures fair and accurate billing of your customers, improves the quality of your data and helps reduce your non-revenue water.

Cutting-edge leak detection *before* the meter

Non-revenue water remains one of the water industry's main challenges and locating leaks on service connections or distribution mains can feel like finding a needle in a haystack. But, what if your meters could detect the leaks you cannot see?

With the integrated acoustic leak detection offered by flowIQ® 2200, they can do just that.



Use your meters to detect leaks

Now, you can let your smart meters work for you to help locate leaks. Acting as a fine-meshed network of noise loggers, the meters monitor noise patterns in the distribution lines and service connections to detect possible leaks.

With detailed knowledge of where to find possible leaks, you will be able to prioritise daily efforts and large investments to when and where they will have the biggest impact. And with a faster and more efficient leak detection, you can reduce your cost per identified leak and find the low-hanging fruits for reducing your water loss.

Flexible remote reading – now also through NB-IoT



All our residential water meters come with integrated communication that allows for safe and easy remote reading via drive-by or network through various communication technologies such as Wireless M-Bus, linkIQ® and NB-IoT - without any add-on devices.

This means that you can say goodbye to manual meter readings and estimated calculations. You can significantly decrease your data collection time and avoid time-consuming follow-ups on lacking or imprecise readings.

The integrated NB-IoT option will, as a key complementary element to the linkIQ® system, improve the device deployment flexibility such as at the black spot of a fixed network or areas with less meter density. Hence, with the Kamstrup linkIQ®/NB-IoT hybrid concept, the dependency on radio infrastructure and the total cost of ownership of an AMI system will be reduced significantly.

NB-IoT, as an official member of the 5G family, shall assist your smooth evolution to massive IoT in the coming decades.

Data for more than billing

Our residential meters offer more than the data needed to conduct a fair and accurate billing. Multiple intelligent alarms and info codes let you detect irregularities such as leaks and bursts or other events like tampering attempts, reverse flows and more.

The meters offer a variety of different data packages and options for configuring the log ensuring that you get the data you need to optimise your operations.

Info codes and intelligent alarms

- Dry
- Reverse
- Leak
- Burst
- Tamper
- Radio off
- Low battery*
- Low temperature*
- High temperature*
- Max flow exceeded *
- No consumption*

* Only available for flowIQ® 2200

Product comparison

Feature	MULTICAL® 21/ flowIQ® 2101	flowIQ® 2200	flowIQ® 2200 w/NB-IoT
Acoustic leak detection	-	✓	✓
Flow rate shown in display	-	✓	✓
Consumption profile	-	✓	✓
Hourly log	-	✓	✓
Remote reading	<ul style="list-style-type: none"> • Wireless M-Bus • Wired M-Bus • Sigfox • Pulse Adapter • GEO Display 	<ul style="list-style-type: none"> • Wireless M-Bus • linkIQ® • Pulse output • flowIQ® Gateway 	<ul style="list-style-type: none"> • NB-IoT
Intelligent alarms	<ul style="list-style-type: none"> • Leak • Burst • Tamper • Dry • Reverse flow 	<ul style="list-style-type: none"> • Leak • Burst • Tamper • Dry • Reverse flow • Low battery • Low temperature • High temperature • No consumption • Max flow exceeded [$Q > Q_4$] 	<ul style="list-style-type: none"> • Leak • Burst • Tamper • Dry • Reverse flow • Low battery • Low temperature • High temperature • No consumption • Max flow exceeded [$Q > Q_4$] • Daily (hourly values) • Real-time priority alarms
Display update	32 s update	Down to 4 s update	Down to 4 s update
Water ingress protection	IP68	IP68	IP68
Sizes	1.6 - 4.0 m ³ /h	1.6 - 10 m ³ /h / DN15-DN25	1.6 - 10 m ³ /h / DN15-DN25
Start flow	2 l/hour	Down to 0.9 l/hour	Down to 0.9 l/hour
Battery lifetime	Up to 16 years	Up to 20 years	Up to 15 years (at ECL0)
Clip-on antenna	-	-	✓
SIM			3FF non-exchangeable
Frequency bands			B1/B2/B3/B4/B5/B8/B12/ B13/B17/B18/B19/B20/B25/ B26/B28/B66
Telecommunication compliance			3GPP Rel-14

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