

MULTICAL® 303  
MULTICAL® 403  
MULTICAL® 603  
MULTICAL® 803

**kamstrup**

## One platform – countless possibilities

- Lower your costs with reduced stock levels
- Decrease your total lifetime investment
- Future-proof your heat and cooling installation with full flexibility



# Next-level flexibility

Quality, flexibility and scalability are key to ensuring that the metering solution you choose today also provides you with the right tools for the demands of the future.

## Third generation platform

Kamstrup has developed a complete meter platform that gives you the ultimate flexibility. Our shared MULTICAL® platform for 303, 403, 603 and 803 heat, cooling and combined heat/cooling meters allows you to easily upgrade rather than replace your meters as new possibilities and challenges occur. These upgrades can be done without interfering with legal registers and with no or minimal impact on meter readings and network management.

## Geared for the future

The modularity of the MULTICAL® 403, 603 and 803 platform means that you are able to seamlessly add or switch communication modules to match your communication demands. The built-in two-way communication allows software download to either meter or communication module as well as remote configuration of meter and module. Furthermore, it is possible to read out the data logger without direct access to the installation.

In this way, you can effectively future-proof across your Kamstrup solution.



Heat



Cooling

## Built to last – designed to perform

The third generation of Kamstrup's MULTICAL® heat and cooling meters is based on a deep understanding of the challenges faced by utilities. Combined with decades of experience developing innovative ultrasonic technology and future-proof design, the result is high-quality meters with simple-to-use functionality, unrivalled accuracy and reliability.



## Better operation optimisation

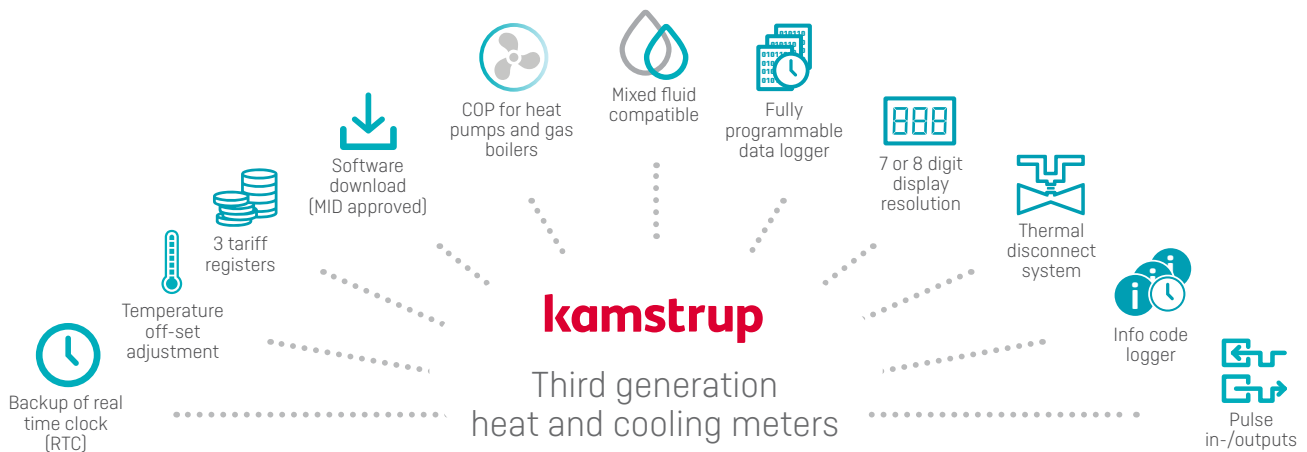
MULTICAL® 303, 403, 603 and 803 offer full support for remote reading for billing and give you instant access to the information needed to analyse and optimise your distribution network. The **data loggers are fully programmable** to save yearly, monthly, daily, hourly and minute values. This lets you effectively analyse and diagnose your application for **faster identification of load profiles, errors and inconsistencies**.

MULTICAL® 403, 603 and 803 can be equipped with a wide range of advanced **communication modules**, e.g. M-Bus and Wireless M-Bus. The improved M-Bus allows fast and frequent data readouts without reducing the meter's battery lifetime.

## Lower costs and higher ROI

The new and updated Kamstrup ultrasonic flow sensors for MULTICAL® 303, 403, 603 and 803 have an **increased dynamic range** compared to their predecessors, but despite this, they have a **low pressure loss**, which means less pumping capacity is required. This reduces the consumption of the circulation pumps and limits the energy loss in the installation – all of which lowers the total lifetime cost of the meters and ensures a larger return on investment.

MULTICAL® 403, 603 and 803 can be powered with **mains** or **battery supply** depending on your needs. No matter what solution you choose, the own consumption of the meters is extremely low. This lowers your operational costs as well as the total lifetime cost of each meter.



Though different, our third generation heat and cooling meters share many of the same functionalities. This means that you reap the same benefits regardless of which meter is the right choice for you.

## Low stockholding and easy installation

MULTICAL® 303, 403, 603 and 803 are suited for many different applications and settings including energy unit and inlet/outlet position of the flow sensor, and much more can be individually configured on-site using the front keys. This allows you to keep a low stock, be more cost-effective and save resources previously spent on planning.

One screwdriver is all you need for mounting a third generation MULTICAL® meter. The design and high quality of the meter means that it is virtually maintenance-free while reconfiguration or service is easily completed due to the simple setup. Therefore, the time and cost spent on installations and maintenance are lower than ever before.

# Choose the right meter

This overview will help you pick the meter that matches your needs and requirements.

**MULTICAL® 303**



**MULTICAL® 403**



**MULTICAL® 603**



**MULTICAL® 803**



Heat meter approval [MID, EN1434]	DK-0200-MI004-045	DK-0200-MI004-037	DK-0200-MI004-040	DK-0200-MI004-042
Cooling meter approval [BEK-1178, EN1434]	TS 27.02 015	TS 27.02 009	TS 27.02 012	TS 27.02 013
Temperature range	2...180 °C			
Differential temperature	3...178 K			
Medium temperature	2...130 °C			
Mains supplied	24 VAC/VDC or 230 VAC			
Battery supplied	1 x A-cell/2 x A-cell	1 x C-cell/1 x D-cell/ 2 x A-cell	1 x D-cell/2 x A-cell	2 x A-cell
Battery lifetime <sup>1)</sup>	Up to 16 years			Up to 6 years <sup>2)</sup>
Flow range	q <sub>p</sub> 0.6...2.5 m <sup>3</sup> /h	q <sub>p</sub> 0.6...15 m <sup>3</sup> /h	q <sub>p</sub> 0.6...1000 m <sup>3</sup> /h <sup>3)</sup>	
Flow sensor cable length	1.5 m		2.5...100 m <sup>4)</sup>	
Temperature sensor	2-wire, Pt500	2-wire, Pt500	2- or 4-wire, Pt500 or Pt100	4-wire, Pt500/100 auto
Temperature sensor cable length	1.5...3 m	1.5...10 m	1.5...100 m	
Protection class	Calculator IP65 Flow sensor IP68	Calculator IP54 Flow sensor IP68	Calculator IP65 ULTRAFLOW® IP65/IP67	
Integration mode	4...64 s		2...64 s	2 s (8 s)
Measuring unit	MWh – kWh – GJ		MWh – kWh – GJ – Gcal	
Module slots		1	2	4
Integrated M-Bus	✓		✓	
Integrated Wireless M-Bus	✓			
Data and analog modules		✓	✓	✓
M-Bus and Wireless M-Bus modules		✓	✓	✓
Industrial modules (ModBus, BACnet)		✓	✓	✓
Separable calculator and flow sensors			✓	✓
Connection of third-party flow sensors <sup>5)</sup>			✓	✓
Backlit display			✓ [option]	✓
Mixed fluid compatible			✓ [option]	✓ [option]

1) Battery lifetime depends on various factors, e.g. integration mode, readout interval.

2) Backup battery for the operation of the basic meter functionality or basic meter functionality and communication on module slot no. 1.

3) MULTICAL® 603 and 803 can be ordered with Kamstrup ultrasonic flow sensors series, ULTRAFLOW®.

4) Standard cable lengths are 2.5 m, 5 m and 10 m. Can be extended up to 30 m with Cable Extender Box with extended flow info codes. Can also be extended up to 100 m with Pulse Transmitter, however without extended flow info codes.

5) q<sub>p</sub> 0.6...15,000 m<sup>3</sup>/h.

## Kamstrup A/S

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