



■ Thermal Energy ■ Flow Metering ■

Supercal 539

Universal compact heat meter



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Result of many years of experience

The compact heat meter Supercal 539 is the result of many years of experience.

During the development phase a lot of emphasis has been put on a long-term-stable, precise and reliable heat measurement as well as on flexible communication.

The additional, optional integrated tariff function makes a combined use for heat/cooling measurement possible.

The Supercal 539 convinces by its clear technical and conceptual structure, by the measuring reliability characteristics, and corresponds to the EN1434.

The approval permits a symmetrical, as well as a non-symmetrical installation of the temperature sensors.

The universal compact heat meter Supercal 539

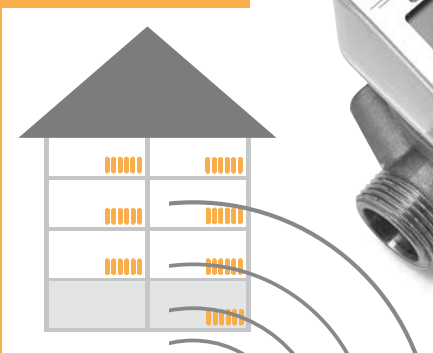
The compact design and the universal communication solutions are part of the advantages of the compact heat meter Supercal 539. It can be integrated into existing systems without any problems.

Thanks to the upto two additional pulse inputs e.g. water meters can be integrated economically and simply in an M-Bus or radio system. The integrator can be combined with flow sensors within the range of 0,6 to 2,5 m³/h.

The Supercal 539 contains the necessary functions for self-control as well as a monitoring of the operating conditions.

Working reliability for many years thanks to the proven flow sensor

The flow sensor with its hart metal bearings corresponds to the newest state of the art of technique. Due to the high quality standard are ensured: Many years of working consistency, measuring precision and measuring stability. The temperature sensor is integrated in the flow sensor.





Supercal 539

Versatile and flexible use

Versatile and flexible use

The compact heat meter Supercal 539 adapts to all communication environments:

539 Standard	539 Plus	heating / cooling	heating / cooling Plus
Optical interface	Optical interface Two pulse inputs	Optical interface	Optical interface One pulse input
Optical interface Pulse output (E)	Optical interface Pulse output (E) Two pulse inputs	Optical interface Pulse output (E) Pulse output (E2)	Optical interface Pulse output (E) Pulse output (E2) One pulse input
Optical interface M-Bus	Optical interface M-Bus Two pulse inputs	Optical interface M-Bus	Optical interface M-Bus One pulse input
Optical interface Bidirectional radio	Optical interface Bidirectional radio Two pulse inputs	Optical interface Bidirectional radio	Optical interface Bidirectional radio One pulse input

E = heating energy / E2 = cooling energy

As a standard, each version is supplied with an optical interface. Via this interface one can, with the help of a pocket PC or a laptop, set the parameters or simply, fast and error free read the data of the compact heat meter.

The flexible power supply concept

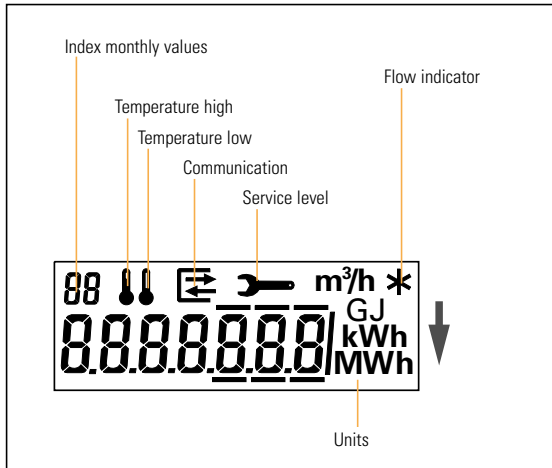
For the version with optical interface with or without pulse output the integrator can be equipped at the factory with an additional battery, so that the battery lifetime will be increased to up to 10 years. The versions with the M-Bus option have optionally the possibility to be power via the M-Bus system. The integrated battery will take care of the back-up function in the case of a power supply failure of the M-Bus system.

Absolute data safety thanks to EEPROM

All data, including the error messages, are stored in a non volatile memory (EEPROM) data loss with a power supply failure (e.g. battery change). Once per day and also with a potential power supply failure the cumulated values are automatically updated in the EEPROM.

Supercal 539

Simple to use and reading off concept

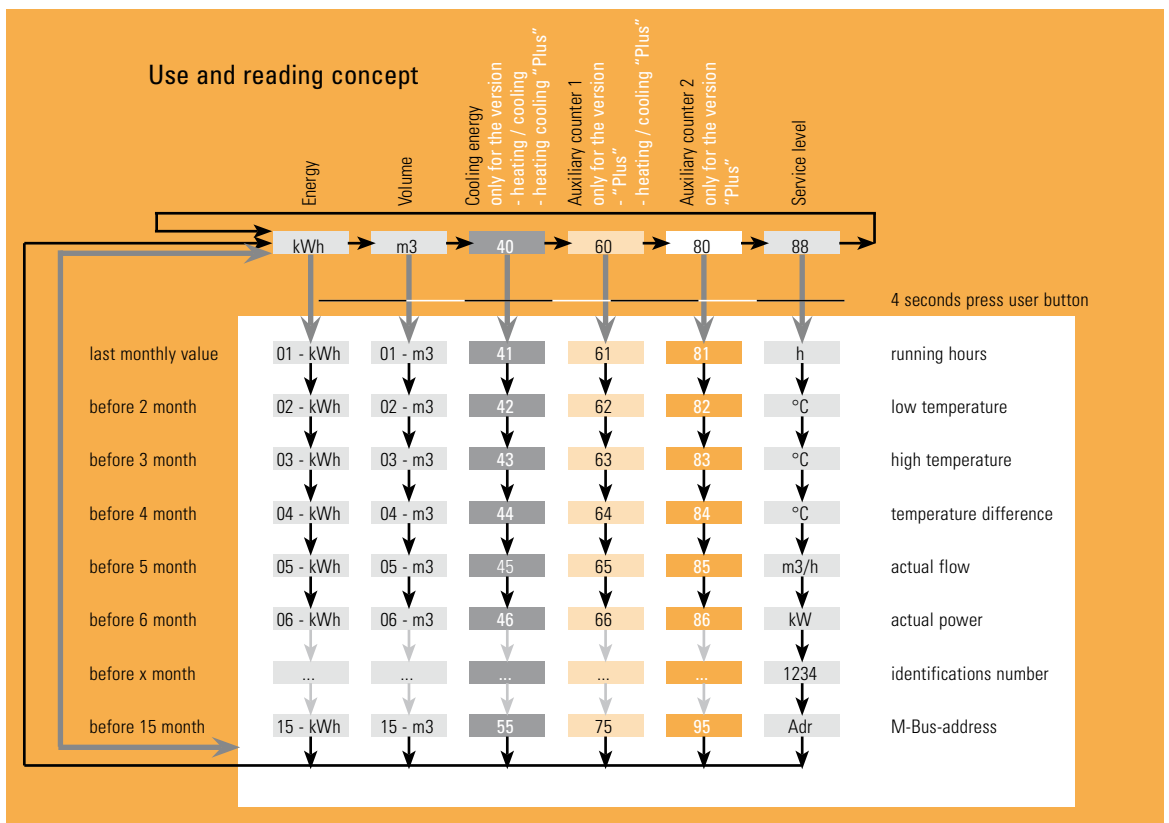


Simple to use and reading off concept

In consideration of the person reading the LCD display of the Supercal 539, the display was designed clear and particularly large. Easy readable symbols facilitate a recognizing of the different display sequences.

The integrator can be turned all around and therefore also in difficult installation conditions simple and safe reading.

The displayed, billing-relevant values like cumulated energy, volume and error messages are shown, in the standard version, on the first display level. In addition, with the version "Plus" up to two of the extra pulse inputs and with the version "heating cooling" the cooling energy is displayed on the first display level. If you press the operating button for 4 seconds in the first display level, the integrator switches to a lower display level - to the last monthly value. By pressing again shortly the operating button, the following monthly values are displayed. If you press the operating button for 4 seconds, yet again, the first display level with the cumulated energy appears.





Supercal 539 adapts to all communication environments

Main features

- For use as heat meter or optionally as combined cooling/heat meter
- The threshold value for the combined cooling/heating measurements can be changed at any time
- Simple to use and reading off concept
- Non volatile memory EEPROM
- 15 monthly values
- The Supercal 539 adapts to all communication environments: Radio, pulse, M-Bus (in accordance with EN 1434) and optical interface
- Economical and problem-free system integration thanks to up to two additional pulse inputs
- Optional powering via M-Bus
- Battery lifetime up to 6+1 years or optionally up to 10+1 years
- The Supercal 539 thanks to its compact design fits in to all installation cabinets - boxes
- The Supercal 539 works reliable for many years thanks to the proven flow sensor
- A sensor location is integrated in the in the flow sensor
- Approval for symmetrical and non-symmetrical temperature sensor installation
- The Supercal 539 contains the necessary functions for self-control, as well as a monitoring of the operating conditions
- Installable in flow and return
- Reading software for pocket PC or laptop

Flow measurement							
Nominal flow q_p	m^3/h	0.6	1.0	1.5	1.5	2.5	
Maximum flow q_s	m^3/h	1.2	2.0	3.0	3.0	5.0	
Minimum flow q_i	horizontal mounting	l/h	12	10	15	15	25
	vertical mounting	l/h	24	20	30	30	50
Starting point	l/h	<3	<3	<5	<5	<8	
Nominal pressure P_N	bar	16					
Pressure loss at q_p Δp	mbar	100	230	230	230	230	
Class		EN 1434 Class 3					
Mounting							
Diameter DN	mm	15	15	15	20	20	
Threaded connection	inches	3/4"	3/4"	3/4"	1"	1"	
Mounting length	mm	110	110	110	130	130	
Nominal temperature		90°C					
Temperature short time		110°C					
Temperature measurement							
Temperature sensor		Pt 10'000					
Temperature sensor / Integrator		0...110°C					
Temperature starting point Δt		3...75K					
Response limit		0.5°C					



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