



Supercal 539

Universal compact heat meter



Supercal 539 Universal compact heat meter

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 conceptional 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 $2.5 \text{ m}^3/\text{h}$.

111111

111111

111111

The Supercal 539 contains the necessary functions for selfcontrol 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

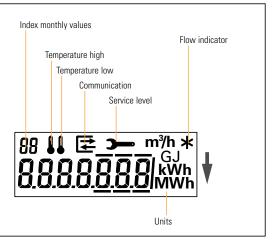
For the version with optical interface with or without pulse output the integrator can be equipped at the factory with an additional battery, so that the battery lifetime will be increased to up to 10 years. The versions with the M-Bus option have optionally the possibility to be power via the M-Bus 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



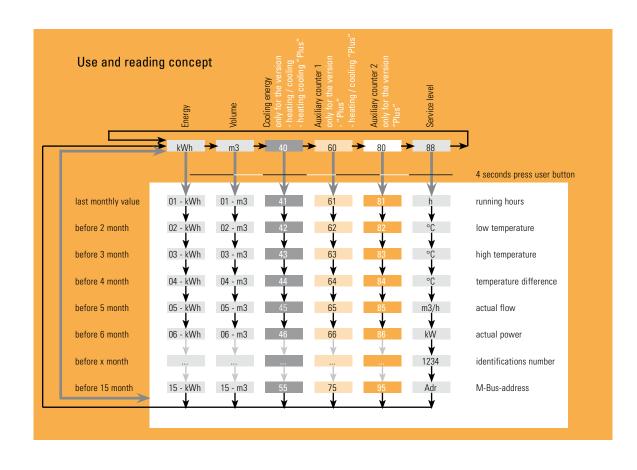
Simple to use and reading off concept

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

Response limit

• Reading software for pocket PC or laptop

Flow measurement								
Nominal flow qp	m³/h	0.6	1.0	1.5	1.5	2.5		
Maximum flow qs	m³/h	1.2	2.0	3.0	3.0	5.0		
Minimum flow qi 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 PN	bar		16					
Pressure loss at qp Δ p	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			0110°C					
Temperature starting point Δt			375K					

0.5°C



Sontex SA

CH-2605 Sonceboz

Tel. + 41 32 488 30 00

Fax. + 41 32 488 30 01

e-Mail: sontex@sontex.ch

Homepage: www.sontex.ch