

Cooling Meter

Techem Ultrasonic cooling meter radio 3

The high-tech cooling meter with integrated radio module for all-electronic heat measurements: economic, service friendly, easy to set up and provides extremely stable measurements. The built-in radio module makes it possible to read the energy consumption per radio without having to enter the flat.

Product description

Volume recording works on the patented ultrasound free-jet principle. By comparing the transit time of ultrasound signals in and opposite to the direction of flow while taking temperature sensitivity into consideration it is possible to calculate the flow rate with the highest level of precision. The compact heat meter is suitable for a wide variety of applications. In house transfer stations of local and district cooling systems, and central cooling systems in residential buildings for which financially accountable billing is required. And it is also the best-possible cooling meter when it comes to separating cooling water costs. The calculator with LC display offers an extensive range of display and memory functions for service and statics purposes.

Performance features

- Transmits the meter reading data from the occupancy unit per radio
- Tenant not required to be present when meter is read
- Mid-month and end-of-month readings transmitted; intermediate on-site readings no longer required
- Ultrasound measuring system continuously monitors itself with pre-warning for air, severe soiling or others

Authorisations: MID (EN 1434)

Heat meter

- Authorisations: DK-0200-MI004-013
- Temperature range : 2°C 160°C
- Difference range : 3K 150K

Cooling meter

- Temperature range : 2°C 50°C
- Difference range : 3K 30K

Dynamic range q_i:q_p 1:100

Environmental class: EN 1434 class A

MID description

- Mechanical environment: class M1
- Electromagnetic environment: Class E1

Mechanical data:

Ambient temperature 5 55°C non-condensing, closed rooms (indoor installation)

Degree of protection

- Data calculator IP54
- Flow rate sensor IP65

Temperature of media

- Heat meter: 15 130°C
- Cooling meter: 2 50°C
- Medium in flow rate sensor: Water

Flow rate sensor cable: 1.5 m (cable non-detachable)



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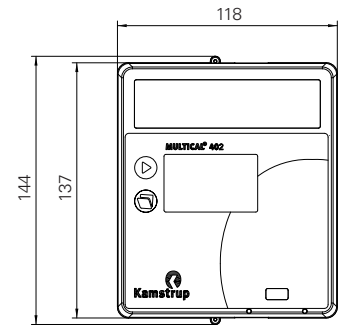
Get closer. Think further.

Technical data volume meter:

Nominal flow qp:	m ³ /h	0.6	1.5	1.5	2.5	3.5	6	10	15
max. flow qs:	m ³ /h	1.2	3	3	5	7	12	20	30
min. flow qi:	l/h	6	15	15	25	35	60	100	150
Start-up flow rate:	l/h	3	3	3	5	7	12	20	30
Nominal width DN:		15	15	20	20	25	25	40	50
Nominal pressure	bar	16	16	16	16	16	16	16	25
PN:									
Pressure loss at qp:	bar	0.04	0.22	0.22	0.03	0.07	0.20	0.06	0.14

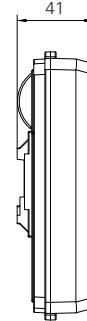
Dimensions:

Standard connection:	G¾B	G¾B	G1B	G1B	G1¼B	G1¼B	G2B	flange	
Length of volume transducer:	L	110	110	130	130	260	260	300	270



Technical data data calculator and temperature sensor:

Nominal flow qp:	m ³ /h	0.6 – 15
Display unit:	MWh	
Display:		LCD, 8-stellig
Environmental class:		MID E1 + M1
Ambient temperature:	°C	5 ... 55
Storage temperature:	°C	-25 ... +60
Degree of protection:		IP 54
Power supply:		10 + 1 year
Temperature measurement cycle:	sec	24 sec
Volume measurement cycle:	sec	3 sec
Temperature difference min./max.:	ΔK	0.01K / 150K
Start temperature difference:	ΔK	0.01

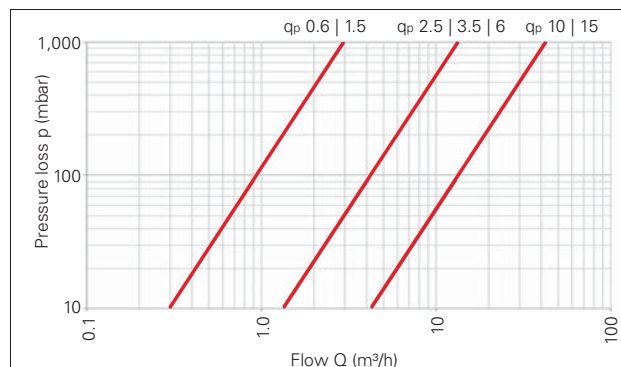


Temperature sensor:

Temperature sensor type:	PT 500 EN 60 751, two-wire connection
Sensor diameter:	mm 41310
Cable length:	m 3

Technical data RF:

Radio data:	Consumption data from 12 mid-month and end-of-month values, due date value and status information
Operating frequency:	MHz 868.95
Transmitting power:	mW 3 ... 10
CE conformity:	In compliance with Directive 1999/5EC



Pressure loss curve