

Landis
| Gyr⁺

All aboard:
The ULTRAHEAT UH50 heat meter
will take you to the future



Choose the best connection
to the future: ULTRAHEAT UH50

The highest precision, no maintenance and stable measurement for years and years have set heat measurement with ultrasonic technology on a rapid growth course in many applications.

A development that Landis+Gyr decisively influenced and directed from the outside with trendsetting ultrasonic technology for heat and cold meters. To be prepared for future market demands, we have further developed our existing heat meter generation: with the seamlessly connected ULTRAHEAT® UH50 ultrasonic heat meter. It combines experience with innovation, technology with reliability. In a word: It is your reliable connection to the future.

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Available for every application

The ULTRAHEAT UH 50 heat meter was specifically designed for the varied applications of heat measurement: It meets the special requirements of district heating, local heat and building installation.

Whether for a detached house, apartment building or special tariff customer – the dimension and the specific scope of the ULTRAHEAT UH 50 are always right. Modularity and flexibility of individual software settings permit ideal adaptation to your requirements and applications.

ULTRAHEAT UH 50 is available as a heat meter, combined cold/heat meter, or as ULTRACOLD for pure cooling applications.



Wherever you're headed:

ULTRAHEAT UH50 will take you there

Knowing exactly what the market needs now and in the future: That is the principle on which we develop our products. In times of deregulated, liberalized and increasingly global markets, cost transparency is becoming more and more important. With ULTRAHEAT UH50, we have developed a heat meter that minimizes your start-up and operating costs. And your investments are optimized and protected.

[Features and Highlights

- › Precise and yet robust
- › Multiple communication (2 slots)
- › Straightforward two-button operation
- › Data logger for monitoring
- › Detailed operation logbook
- › No straight pipe sections necessary
- › Full-metal measurement tube resistant to soiling (DuraSurface)







Low start-up and operating costs

The use of non-wearing parts, automatic self-diagnostics and error detection and simple operation of the unit minimizes your operating costs. Simple and fast installation also ensures low start-up costs. A low pressure drop reduces the pump power and therefore the power consumption.

Avoidance of revenue loss

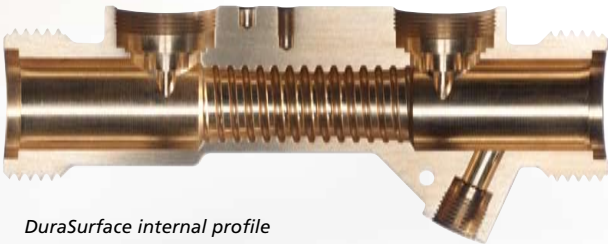
The use of ultrasonic technology ensures reliable recording of creeping quantities. Because the meters also measure stably and very precisely, no revenue is lost.

Minimum investment costs and optimum investment protection

The use of plug-and-play modules as a communication interface, the flexibility of two slots and openness for communication solutions of other manufacturers guarantee optimum investment protection. Low investment costs are favored by a sturdy and durable design with non-wearing parts. No straight pipe sections are necessary. That saves space and costs.

DuraSurface – measuring accuracy

With DuraSurface, we are setting new standards in measurement stability. For this purpose, volume measuring units up to qp 2.5 are fitted with a special internal profile. DuraSurface ensures that interfering reflections in the measurement channel are filtered out from the outset. That makes the meter more resistant to dirt deposits. This future-oriented innovation ensures measuring accuracy and maintenance-free operation for many years.



DuraSurface internal profile



Flexible connections required?

ULTRAHEAT UH50 provides them

The ULTRAHEAT UH50 allows you to read out data and integrate it into different systems. Data bus, pulse or wireless - we offer you a wide range of communication modules. All modules are basically simple to retrofit or replace even during operation. Two slots are available per unit.

[Open for the future

- › Pulse module
- › M-bus module
- › Current-loop module
- › Analog module
- › Radio modules

The modular concept allows the integration of new types of communication in the future.

Developed for all applications

Whatever your requirements in district heating, local heat, or building installation: ULTRAHEAT UH 50 offers a whole range of functionalities. These include:

Tariff register: Tariffs can be individually adapted

Different tariff functions in the ULTRAHEAT UH 50 permit adaptation to individual tariff structures. For power, flow rate, return or flow temperature, you can set tariffs with up to three threshold values. A 2-tariff system either clocked or with M-bus telecontrol, is also possible.

Use of tariff functions creates incentives to optimize district heating networks. In a word: The flexibility of the tariff functions leaves no wishes unfulfilled for structuring a tariff-dependent heat price.

Maximum memory: Information about cost-efficiency

The documented maxima provide information, for example, about compliance with agreed operating parameters of a heating system. For example, the ULTRAHEAT UH 50 records the maxima of the values for flow rate, power, flow and return temperature, as a lifetime maximum and for each of the eighteen stored months.

Self-diagnostics for more protection

A security package enables early detection of tampering and possible problems with the system. For example, the ULTRAHEAT UH 50 records and signals incipient soiling in the system and offers effective tampering detection on the temperature sensors. The undeletable logbook as a standard feature rounds off this function perfectly. Monthly values also make consumption and measurement values plausible and traceable.



Communications modules can be added at any time





Logbook function for better diagnostics

With the logbook function, up to 25 different events are recorded and read out using the PappaWin software. This enables diagnosis of rarely occurring faults. Events, operating states, and changes to the unit are recorded for a long time and made transparent.

Data logger: Monitoring and analysis

The optional data logger stores measured values continuously. These values are recorded in parallel at four time intervals (hourly, daily, monthly and yearly). Each of these archives contains up to eight channels. A measured value can be assigned individually to each channel by software and read out easily later on. This permits uninterrupted system monitoring and a detailed technical analysis of the system states and mode of operation.

Service function: Practical in the field

Parameters can be set both by the PappaWin service software and directly on the unit without external tools. A special service menu allows you to set important variables, such as M-bus address, time, customer-specific device number and many more.

Modular power supply

The unit can be equipped with a long-life battery for up to sixteen years or with a power supply unit. The power supply unit can also be replaced without breaking the seal.

ULTRAHEAT UH50 - Technical Data

Threaded joint																	
ULTRAHEAT UH50	05	06	21	22	07	09	23	25	36	37	38	40	45	47	50	60	Order code
Nominal flow rate q_p	0.6	0.6	1.5	1.5	0.6	0.6	1.5	1.5	2.5	2.5	2.5	2.5	3.5	3.5	6.0	10	m ³ /h
Maximum flow rate q_s	1.2	1.2	3.0	3.0	1.2	1.2	3.0	3.0	5.0	5.0	5.0	5.0	7.0	7.0	12	20	m ³ /h
Minimum flow rate q_i	0.006	0.006	0.015	0.015	0.006	0.006	0.015	0.015	0.025	0.025	0.025	0.025	0.035	0.035	0.06	0.1	m ³ /h
Response threshold approx.	2.4	2.4	6.0	6.0	2.4	2.4	6.0	6.0	10.0	10.0	10.0	10.0	14.0	14.0	24	40	l/h
Overall length	110	110	110	110	190	190	190	190	130	130	190	190	260	260	260	300	mm
Thread	G ³ / ₄ B	G ³ / ₄ B	G ³ / ₄ B	G ³ / ₄ B	G1B	G1B	G1B	G1B	G1B	G1B	G1B	G1B	G1 ¹ / ₄ B	G1 ¹ / ₄ B	G1 ¹ / ₄ B	G2B	—
Nominal pressure	PN16	PN25	PN16	PN25	PN16	PN25	PN16	PN25	PN16	PN25	PN16	PN25	PN16	PN25	PN16	PN16	bar
Pressure drop Δp at q_p	150	150	150	150	150	150	150	150	200	200	200	200	65	65	150	100	mbar

Flange joint												
ULTRAHEAT UH50	08	24	39	46	52	61	65	70	74	82	83	Order code
Nominal flow rate q_p	0.6	1.5	2.5	3.5	6.0	10	15	25	40	60	60	m ³ /h
Maximum flow rate q_s	1.2	3.0	5.0	7.0	12	20	30	50	80	120	120	m ³ /h
Minimum flow rate q_i	0.006	0.015	0.025	0.035	0.06	0.1	0.15	0.25	0.4	0.6	0.6	m ³ /h
Response threshold approx.	2.4	6.0	10.0	14.0	24	40	60	100	160	240	240	l/h
Overall length	190	190	190	260	260	300	270	300	300	360	360	mm
Flange	DN20	DN20	DN20	DN25	DN25	DN40	DN50	DN65	DN80	DN100	DN100	—
Nominal pressure	PN25	PN25	PN25	PN25	PN25	PN25	PN25	PN25	PN25	PN16	PN25	bar
Pressure drop Δp at q_p	125	160	195	65	150	165	100	105	160	115	115	mbar

Quality made

for Europe and the world

To ensure the high quality standard of each unit, all meters are tested individually before leaving our factory. We also have quality and environment management systems certified per ISO 9001 and ISO 14001. The quality management system is additionally recognized by the Physikalisch-Technische Bundesanstalt according to the EU Measuring Instruments Directive.

The world is our home

The ULTRAHEAT UH50 complies with the European MID (Directive 2004/22/EC, MI-004). Approval has also been obtained for most other regions in the world and we have the right to perform calibrations ourselves for the most important markets outside Europe. That means: The meters can be supplied directly from the factory to the market for most countries in the world without additional calibration.

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