

Heat Meter  
District Heating

Landis  
Gyr+  
manage energy better



THORNE &  
DERRICK  
INTERNATIONAL

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Ultrasonic Heat Meter

**ULTRAHEAT  
T550 (UH50...)**

The high-precision ultrasonic  
heat meter - developed for every  
application



**Low installation and operating costs**

Operating costs are kept to an absolute minimum through the use of non-wearing parts, automatic self diagnosis and fault detection, plus the unit is so simple to operate. Because it is so easy and quick to install, start-up costs are really low.

**Investment costs are kept to a minimum and the security of your investment is ensured**

By using plug-and-play modules as the communication interface; the meter has future compatibility in terms of new communication solutions. Flexibility is provided by two module slots. The meter has a rugged design with non-wearing parts to give the long service life that makes the ULTRAHEAT such a good investment. There is no need for any straight lengths of pipe before or after the meter resulting in both space and cost savings. ULTRAHEAT offers a wealth of impressive features.

**DuraSurface – reliable measurements with a profile**

The innovative DuraSurface internal contour is setting new standards for measurement stability. This has been achieved by providing small volume measurement components up to qp 2.5 with the DuraSurface internal profile and has the effect of permanently filtering out disruptive reflections from the measurement channel, thus making the meter resistant to coating and dirt deposits.

This pioneering innovation will deliver reliable measurements and provide maintenance-free use for many years.

**Quality – assured and checked**

The quality of all our heat meters is guaranteed. Every meter is tested before leaving the factory and certified to quality and environmental management systems standards conforming to ISO 9001 and ISO 14001.

Our quality management system is approved in accordance with the EU Measuring Instruments Directive by the PTB (Federal Institute for Physics and Metrology).

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## Developed for all applications

The ULTRAHEAT T550 heat meter has been designed specifically for the many different applications in which heat metering can be used meeting the particular needs of district and communal heating systems, building energy management technology and cooling metering. Whether the meter is destined for use in a block of flats, consumers on a special tariff, or more general use the ULTRAHEAT T550 has the ability in terms of range of sizes and choice of functions. Different software settings make the meter a highly modular, flexible solution that can be tailored to your own particular needs and applications.



### Key features

- ❑ Ultrasound principle ensures extremely accurate and stable measuring results
- ❑ No moving parts, so no mechanical wear
- ❑ Logbook included as standard
- ❑ Approved measuring range 1:100
- ❑ No straight lengths of pipe required
- ❑ All-metal volume measuring components
- ❑ Batteries have a service life of up to 16 years
- ❑ Power supply units available from 24 V AC/DC to 230 V
- ❑ Optical interface acc. to EN 62056-21:2002
- ❑ Two slots for communication modules
- ❑ Allows data from 60 preceding months to be read
- ❑ Wealth of tariff functions allow the unit to be customized to individual requirements
- ❑ Accurate, rugged, non-wearing
- ❑ Automatic self diagnosis and fault detection
- ❑ Optional extra: programmable data logger for system monitoring





### Threaded connection

Nominal flow $q_p$	0,6	1,5	0,6	1,5	2,5	2,5	3,5	6,0	10	m³/h
Maximum flow $q_s$	1,2	3,0	1,2	3,0	5,0	5,0	7,0	12	20	m³/h
Minimum flow $q_i$ (1:100)	6	15	6	15	25	25	35	60	100	l/h
Response threshold (variable)	1,2/2,4	3/6	1,2/2,4	3/6	5/10	5/10	7/14	12/24	20/40	l/h
Length	110	110	190	190	130	190	260	260	300	mm
Thread	G¾	G¾	G1	G1	G1	G1	G1¼	G1¼	G2	G
Pressure loss at $q_p$	150	150	150	160	200	200	60	180	100	mbar

### Flanged connection

Nominal flow $q_p$	0,6	1,5	2,5	3,5	6,0	10	15	25	40	60	m³/h
Maximum flow $q_s$	1,2	3,0	5,0	7,0	12	20	30	50	80	120	m³/h
Minimum flow $q_i$ (1:100)	6	15	25	35	60	100	150	250	400	600	l/h
Response threshold (variable)	1,2/2,4	3/6	5/10	7/14	12/24	20/40	30/60	50/100	80/160	120/240	l/h
Length	190	190	190	260	260	300	270	300	300	360	mm
Flange	DN20	DN20	DN20	DN25	DN25	DN40	DN50	DN65	DN80	DN100	DN
Pressure loss at $q_p$	125	160	195	60	180	165	100	105	160	115	mbar

### Your passport to the future

- ❑ Pulse module, 2 channels
- ❑ M-bus module
- ❑ M-bus with two pulse inputs
- ❑ Current loop module
- ❑ Analog module, 2 channels
- ❑ Wireless module with two pulse inputs
- ❑ GSM module with two pulse inputs
- ❑ GPRS module for connecting 8 M-bus meters

Other communication modules are under development.

**List of tariffs: Tariffs can be adjusted on an individual basis**

A variety of tariff functions enable the system to be set for specific tariff frameworks. Whether for power, flow rate, return or flow temperature, tariffs can be set with up to three threshold values. A dual-tariff system is possible, either time-pulsed or remote-controlled via M-Bus.

The use of the flexible tariff functions can create incentives for making district heating systems more efficient by formulating tariff-dependent prices for heating and cooling.

**Logbook for better diagnosis**

The logbook function enables 24 different events to be recorded and selected using the Service Software. Diagnosis of operational malfunctions can be recorded. Events, operating status and changes to the device are recorded over an extended period and are made readily accessible.

**Data logger: monitoring and analysis**

The optional data logger continually saves measured values. These values are recorded in parallel in four time cycles ranging from hourly to annually. Each of these archives contains up to eight optional measured values. Service software is also provided, enabling a measured value to be individually assigned and easily retrieved and displayed. This enables monitoring of the system and performs a technical analysis of the operating mode.

**Self diagnosis provides greater protection**

A safety package is provided which enables early detection of any manipulation or potential problems in the system. The ULTRAHEAT T550 records and reports on any buildup of dirt in the system, and also reliably detects any manipulation of the temperature sensors. The log book, which is supplied as standard, complements this function perfectly. Entries in the log book cannot be deleted. Also, monthly values provide plausibility and traceability of consumption figures and other parameters.

## Manage energy better

Landis+Gyr is the leading global provider of integrated energy management products tailored to energy company needs and unique in its ability to deliver true end-to-end advanced metering solutions. Today, the Company offers the broadest portfolio of products and services in the electricity metering industry, and is paving the way for the next generation of smart grid.

Landis+Gyr, an independent growth platform of the Toshiba Corporation (TKY:6502) and 40% owned by the Innovation Network Corporation of Japan, operates in 30 countries across five continents, and employs 5,000 people with the sole mission of helping the world manage energy better.

More information is available at [www.landisgyr.com](http://www.landisgyr.com).

### Landis+Gyr in short

- 5000 employees worldwide
- Operations on all five continents
- Broadest portfolio of products and services in the industry
- 25 years of smart metering experience
- 1000 AMM systems delivered
- 300 million energy meters produced
- Largest relevant engineering capacity in the industry
- 65 years of direct load management experience
- 15 million load management receivers produced
- ISO certified for quality and environmental processes
- World leader in integrated energy management solutions
- Committed to improved energy efficiency and environmental conservation
- Solid and established partner network

Landis+Gyr AG



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