Measuring technology for thermal energy
Heating and cooling applications, different water mixtures

Landis+Gyr
manage energy better

Calculator

ULTRAHEAT / ULTRACOLD
T550 (UC50...)

The all-rounder:

The calculator with advanced applications for more flexibility

Advanced applications for more flexibility

The T550 (UC50...) calculator is real all-rounder. It was specifically designed for different applications of heat and cold measurement. Additional features allow also to use it as a multi tariff or a glycol meter*. The calculator enjoyes all the advantages of the T550 (UH50...) and was upgraded with additional features to improve the usage and the handling.
A big advantage is the one-time free parameterized pulse value. As long as the pulse value is zero the place of installation of the calculator can be adapted. The display resolution will be adjusted automatically. With the service software you can easily parameterize your individual pulse value.
In combination with a multitude of flow parts the separate approved calculator can be used in different applications.

* only acc. EN1434, not calibrated

- Heat Meter
- Cooling Meter
- Combined Heat- / Cooling Meter
- Multi-Tariff Meter
- Glycol Meter
- Flow Sensor

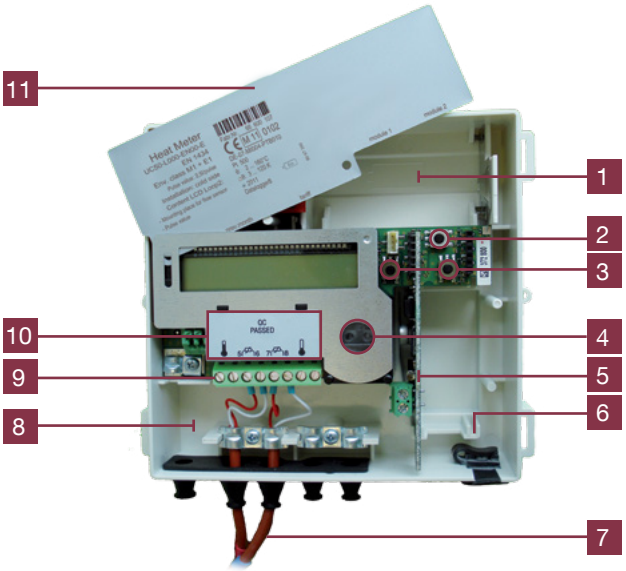
Key Features

- Passive pulse input
- Useful information on the dial plate and LCD
- Simple 2-button operation
- Logbook for easy diagnosis included as standard
- Batteries have a service life of up to 16 years
- Power supply units available from 24 V AC/DC to 230 V (optional)
- Optical interface acc.to EN 62056-21
- Two slots for a variety of communication modules
- wM-Bus 868 MHz with certified OMS4-protocol
- Allows data from 60 preceding months to be read
- Wealth of tariff functions allow the unit to be customized to individual requirements
- Precise and reliable
- Automatic self diagnosis and fault detection
- Optional extra: programmable data logger for system monitoring

Calculator - at a glance

Approval	MID (EN 1434)
Protection class	IP 54
LCD	7-digit
Energy units	kWh / MWh or MJ / GJ

Operation threshold f. ΔT	0.2	[k]
Temperature difference ΔT	3 - 120	[K]
Temperature measurement range	0 - 180	[°C]



1	Space for battery or power supply
2	Service button
3	Two buttons for easy handling
4	Optical interface
5	Module slot1 (reserved)
6	Module slot2 (empty)
7	Example for mounted temperature sensors
8	More space for connections
9	4-pin terminal
10	Calibration seal calibration button below
11	Faceplate

The proportioning inside is exactly the same as T550 (UH50...). The familiar design allows a time-saving and safe handling of the calculator. For example to upgrade the calculator with new modules or to use the service button.

Communication modules - retrofit and future-proof

The calculator allows you to read out data and integrate it into different systems. Wired or wireless M-Bus, pulse or radio - we offer you a wide range of communication modules.
All modules are basically easy to retrofit or replace during operation.
Two slots are available per unit.

- Wireless M-Bus module (868 MHz) / OMS v4.1.2 mode C1 or T1 (certified by OMS) encryption mode 5 or 7 (AES 128
- BACnet module
- Modbus module
- GPRS module for connecting 8 M-Bus meters
- Pulse module, 2 channels
- M-Bus module
- M-Bus with two pulse inputs
- Current loop module
- Analog module, 2 channels

T550

BENEFITS

More order possibilities for more applications
The T550 (UC50...) can be used as a non-calibrated calculator* for determination of the heat- / cold flow volume of liquid mixtures (e.g. glycol / water).
On this order option density and enthalpy correction are in progress analog to water for a defined liquid mixture. A customer specific adjustment can be done easily with the service software locally.

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 thermal energy systems more efficient by formulating tariff-dependent prices for heating and cooling.

Logbook for better diagnosis
With the logbook function 24 different events can be recorded and easily read out with the service software. In addition diagnosis of operational malfunctions can be recorded. As well as events, operating status and changes to the device. These are registered for a long time, which simplyfies analysis and traceability.

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.

* only acc. EN1434, no MID or national approval

T550

HIGHLIGHTS

Stable indication of the smallest flows
The adaptive algorithm allows a precise and stable detection even of the smallest flows. If less than 32 pulses per 16 seconds can be measured then the calculator switches automatically to pulse intervall measurement. This means the time beween two pulses will be measured and so the flow can be calculated. For measuring heat consumption or if you have more than 32 pulses in 16 seconds, the pulses will be count.

Intelligent Calculator
Alternatively the calculator can be used with battery (standard) or power supply unit.
Independently the calculator detects which type of power supply is used and switches automatically the corresponding temperature measuring cycles. E.g. from 30s to 4s if main supply is used.
The life-time of battery is displayed on the faceplate of the calculator.
Comparable to the T550 (UH50...) the supercap in mains modules bridges power failures up to 20 min.

Functions for your safety

- **Special register for volume with energy calculation:**
  The volume is only counted, if heat is calculated.

- **Reset of fault time:**
  The fault time counter will reset to zero once after 10 liters of water have gone through the meter.

- **Display of installation faults:**
  A negative temperature difference will be shown.

- **Register for the number of pulses:**
  For installation or verification a pulse counter register is provided. With this register you don‘t have to wait until a volume progress is displayed.

- **Display of monthly values:**
  Up to 60 monthly values will always be saved and
  18 monthly values will be displayed as default.

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Landis+Gyr is the leading global provider of integrated energy management solutions for the utility sector. Offering one of the broadest portfolios, we deliver innovative and flexible solutions to help utilities solve their complex challenges in smart metering, grid edge intelligence and smart infrastructure. With sales of USD 1.8 billion, Landis+Gyr employs approximately 5,600 people in over 30 countries across five continents, with the sole mission of helping the world manage energy better. More information is available at www.landisgyr.eu.

Landis+Gyr in short

- Swiss HQ with 5'600 employees in 30+ countries worldwide
- Serving 3'500+ utilities worldwide
- Over USD 1b of self-funded R&D investment since 2011
- Over 90 million connected intelligent devices deployed
- More than 14 million meter points under managed services
- TWorld's largest smart grid IoT project with 300+ million devices globally
- Frost & Sullivan Global AMI Company of the Year 2017 - the 4th consecutive year

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