Ultrasonic Meters
Residential and District Heating/ Cooling
Water Measurement

Landis+Gyr
manage energy better

Ultrasonic Static Meters

Portfolio ULTRAHEAT/ ULTRACOLD and ULTRAWATER

The best of Landis+Gyr Ultrasonic Static Meters, for a precise and stable measurement for many years which permits easy billing and high customer satisfaction.

T150

High precision flow sensor for heating and cooling applications

The flow sensor ULTRAHEAT Flow T150 is an ultra-sonic volume measurement component for separately approved calculators and open systems. The T150 uses a fast pulse output. Its mechanical features are the same as the ULTRAHEAT T550. Available models have ratings between qp 0.6 and qp 60 and a nominal pressure of up to PN25.
A cold meter version is also available.

Performance Features

- Ultrasonic Flow sensor
- for seperately approved meters
- For open systems
- Available sizes from qp 0.6 up to qp 60
- Any mounting orientation without limitation
- Fast and save mounting
- Precise, robust, nonwearing
- All metal volume measuring components
- Temperature range from 10 - 130 °C
- Comply with the strict European directive (class 2 and 3)
- Optical interface

Communication Interface

Pulse Output
with bipolar pulse output, especially for battery driven calculators/ collectors, 2m cable

Threaded connection

Nominal flow qp	0,6	1,5	0,6	1,5	2,5	2,5	3,5	6,0	10	m^3/h
Maximum flow qs	1,2	3,0	1,2	3,0	5,0	5,0	7,0	12	20	m^3/h
Minimum flow qi (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 qp	150	150	150	160	200	200	60	180	100	mbar

Flanged connection

Nominal flow qp	0,6	1,5	2,5	3,5	6,0	10	15	25	40	60	m^3/h
Maximum flow qs	1,2	3,0	5,0	7,0	12	20	30	50	80	120	m^3/h
Minimum flow qi (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 qp	125	160	195	60	180	165	100	105	160	115	mbar

T550

Developed for every application

The ULTRAHEAT/COLD ® T550 meters are designed specifically for the many different applications. Wether the meter is destined for use in a block of flats, consumers on a special tariff or more general use the 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.

Performance Features

- Ultrasonic Heating or Cooling or combined Heating/ Cooling meter
- No moving parts, so no mechanical wear
- Logbook included as standard
- Approved measuring range 1:100
- No straight lengths of pipe or flow strengtheners required
- All metal volume measuring components
- Batteries have service-life up to 16 years
- Power supply units available from 24V AC/DC to 230 V
- Optical interface acc. to EN 62056-21:2002
- Two slots for communication modules
- Any mounting orientation without limitation
- Allows data from 60 preceding months to be read
- Wealth of tariff functions allow the unit to be customized to individual requirements
- Automatic self-diagnostics and fault detection
- Optional extra: programmable data logger for system monitoring

Communication Interface

wireless M-Bus module (868 MHz)
Radio module with two pulse inputs
GSM module with two pulse inputs
Zigbee module
GPRS module for connecting 8 M-Bus meters
Pulse module, two channels
M-Bus module
M-Bus module with two pulse inputs
Current loop module
Analog module, two channels

Threaded connection

Nominal flow qp	0,6	1,5	0,6	1,5	2,5	2,5	3,5	6,0	10	m³/h
Maximum flow qs	1,2	3,0	1,2	3,0	5,0	5,0	7,0	12	20	m³/h
Minimum flow qi (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 qp	150	150	150	160	200	200	60	180	100	mbar

Flanged connection

Nominal flow qp	0,6	1,5	2,5	3,5	6,0	10	15	25	40	60	m³/h
Maximum flow qs	1,2	3,0	5,0	7,0	12	20	30	50	80	120	m³/h
Minimum flow qi (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 qp	125	160	195	60	180	165	100	105	160	115	mbar

T350

Customer tailored for residential applications

Our ULTRAHEAT/COLD ® T350 meters are not only accurate and permit easy billing but they are also reliable, long-life and low cost in demand in building services technology. These heating or cooling meters offer you all that -
especially for your individual residential needs.

Performance Features

- Ultrasonic Heating or Cooling meter
- High measuring accuracy and reliability due to proven ultrasonic technology
- Nonwearing - requires no mechanical moving parts
- Measuring range of flow 1:1000 acc. to EN 1434
- Total range 1:500
- Any mounting orientation, mounting in return or in flow
- No straight lengths of pipe or flow strengtheners required
- yearly set day
- 15 monthly values
- Battery operated up to 11 years
- 24 V AC/DC external supply as special version
- Optical interface acc. to IEC870 (M-Bus)
- Comply with the strict European directive (class 2)
- Modules pulse output or M-Bus
- Self-diagnostics

Communication Interface

M-Bus (Option),
with 1.5 m cable connected, with galvanic isolation

Pulse output for energy or volume (Option),
with 2 m cable connected, with galvanic isolation

Technical Data

Approval		EN 1434 class2/3
Protection class (flow part)		IP 54/ (IP65)
Display LCD		7-digit
Energy units		kWh / MWh or MJ / GJ
Temperature range	(C°)	5-105
Nominal pressure	PN (bar)	PN16 PN25
Max. Diff. of Temp.	(K)	80
Min. Diff. of Temp.	(K)	3
Switch-off limit	(K)	0.2

Nominal flow rate	qp (m^3/h)	0.6	1.5	2.5
Max. flow	qs (m^3/h)	1.2	3.0	5.0
Min. flow	qi (l/h)	6	15	25
Operating limit	(l/h)	2.4	6	10
Mounting length	(mm)	110/190	110 / 130/190	130/190
Thread connection		G¾ G1	G¾ / G1/ G1	G1/ G1
Pressure loss at qp (mbar) (mounting length 110)	(mbar)	105	105	--
Pressure loss at qp (mbar) (mounting length 130)	(mbar)	--	160	200
Pressure loss at qp (mbar) (mounting length 190)	(mbar)	150	160	200

T230

Your needs answered with ease

The ULTRAHEAT/COLD ® T230 is the new generation of ultrasonic heating or cooling meter especially developed and optimized to meet all residential needs. The meter has impressive features; light in weight, robust, economic efficiency, user-friendliness, and its new individuality.
Improved features made for easier handling and understanding.

Performance Features

- Ultrasonic Heating or Cooling meter - precise, robust, nonwearing
- Smart Metering for all applications
- Flat, removable calculator
- Huge and easy readable Display
- Temperature range: 5-90 °C
- Huge dynamic range: 1:1000
- Storage for 24 monthly values
- 2 monthly set days
- Environmental-friendly construction
- Fast and save mounting
- Any mounting orientation without limitation
- glass-fiber reinforced measuring tube - robust and lightweight
- Comply with the strict European directive (class 2)
- Fast communication
- Battery operated up to 11 years

Communication Interface

M-Bus-Interface (Option),
with 1.5 m cable connected, with galvanic isolation

Pulse-Interface and wireless M-Bus under development

Technical Data

Approval		MID (EN 1434)
Protection class (flow part)		IP 54/ (IP65)
Display LCD		7-digit
Energy units		kWh / MWh or MJ / GJ
Temperature range	(C°)	5-90
Nominal pressure	PN (bar)	PN16
Max. Diff. of Temp.	(K)	80
Min. Diff. of Temp.	(K)	3
Switch-off limit	(K)	0.2

Nominal flow rate	qp (m^3/h)	0.6	1.5	2.5
Max. flow	qs (m^3/h)	1.2	3.0	5.0
Min. flow	qi (l/h)	6	15	25
Operating limit	(l/h)	1.2	3	5
Mounting length	(mm)	110	110 / 130	130
Thread connection		G¾	G¾ / G1	G1
Pressure loss at qp (mbar) (mounting length 110)	(mbar)	75	135	--
Pressure loss at qp (mbar) (mounting length 130)	(mbar)	--	135	165

W550

ULTRAWATER - the next step toward the future

The easy-to-retrofit communication facility permits the integration of smart metering systems, from straightforward mobile data acquisition to fully-automated readout by cable or wireless. Timely and accurate consumption data is essential in order to encourage environmentally aware use of valuable drinking water.

Performance Features

- No dead water zones – hygienically-safe design
- Sensor unit and electronic box can be separated
- No air measured
- Permanently accurate small quantity recording
- Resistant to dirt, small and suspended particles
- Resistant to coating and encrustation
- Can withstand overloads and is insensitive to pressure fluctuations
- Preconfigured for plug-in return flow preventer
- etachable electronic box
- Display with handy 2-key operation
- Logbook included as standard
- 18 monthly values
- Output of maximum levels
- Fast flow indicator
- Error message and manipulation detection
- Battery operation
- Data logger available by request

Communication Interface

same range of communication modules as T550

Technical data

Permanent flowrate Q3	2,5	m³/h
Overload flowrate Q4	3,125	m³/h
Transitional flowrate / minimum flowrate Q2/Q1	1,6	
Dynamic R (Q3/Q1)	50	
Response threshold	10	l/h
Accuracy class	2	
Q1 ≤ Q ≤ Q2	± 5 %	
Q2 ≤ Q ≤ Q4	± 2 %	
Length	190	mm
Port size	DN 20, thread G 1	
Mounting position	any	

Flow profile sensitivity class	U0/D0 (no flow or return sections)	
Pressure loss class ΔP	63, pressure loss 200 mbar	
Water pressure class MAP	1,6	MPa
Temperature range	T30: 5°C < T < 30°C	
Climatic environmental conditions	Class B: 5°C to 55°C	
Mechanical environmental conditions	Class M1	
Electromagnetic environmental conditions	Class E1	
LCD display	7-digit	
Protection class - electronic box	IP 54	
Protection class - sensor unit	IP 67	
Approval	MID Directive 2004/22/EU MI-001	

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