

Entering a Whole New Dimension - The ULTRAHEAT XS Heat Meter





Volume measuring unit

[Highest measurement accuracy

ULTRAHEAT XS measures flow rate by the ultrasonic dragging principle. Two transducers alternately transmit ultrasonic signals in and against the direction of flow. The flow rate can be precisely measured from the difference between the measured propagation times.

[Completely non-wear

Ultrasonic measurement requires no mechanically moving parts. The measuring tube itself has a robust all-metal design. The benefit for you is a long service life and simple, low-cost inspection and recalibration.

[Reliable operation

ULTRAHEAT XS features enormous measurement dynamics. That is the reason the volume measuring units can be loaded up to twice the nominal load qp. The response limit remains at a constant low level during the entire calibration period.

[Variable mounting orientation

ULTRAHEAT XS does not require a straight pipe section and can be installed any way round. The mounting orientation does not affect the measurement accuracy or the measuring dynamics. And the principle has other advantages: ULTRAHEAT XS is insensitive to small particles in the hot water and operates silently.

[Stored meter readings

Both the consumer and the measuring service benefit from the stored meter readings on a freely selectable annual set day or at the end of the month. The readings for the last 15 months for heat, volume, and missing time are shown on a practically configured display.

[Generously sized display

The displays on the generously sized display are clearly structured and easy-to-understand, divided into an easily accessible customer area and a service area. Not only instantaneous values but also set day values and monthly values can be shown. Display of all consumption values facilitates traceability and heat billing.



[Tried and tested

Landis+Gyr ultrasonic meters (formerly Siemens ultrasonic meters) have been successful in tough district heating applications for two decades. Numerous German and other random sample tests have proven its high measuring accuracy. This positive result is confirmed by verification tests according to the K20 Guideline of the PTB (German Federal Institute of Physics and Metrology).

[Future-oriented

Ultrasound technology is a sensible and future-oriented basis for heat measurement – in both economic and ecological terms. The advantages are obvious: technical superiority and no wearing parts. It is the excellent reliability that counts.

all metal!



[Tailored selection – the temperature sensor

ULTRAHEAT XS works with permanently connected Pt 500 temperature sensors. We can supply not only the standard sensor DS M10 x 27.5 mm for direct installation but also 5.2 x 45 mm sensors for pockets – with cable lengths of 1.5 m or 5 m. Installation accessories are available for the flow sensor whereas the return sensor is already mounted in the volume measuring unit.

[Big features in a small space – the calculator

With its compact calculator, the ULTRAHEAT XS heat meter easily fits into a mounting box. For optimum readability, it can be rotated on the measuring tube in 90° steps and can also be mounted up to 1 m away even in the series version. The mounting plate can be used as a wall holder. The electronic unit also features an optical interface and options for remote reading, such as M-Bus or pulse output. And, of course, it is testable on NOWA test stands.

[Standardized lengths

To ensure simple exchangeability, the mounting lengths correspond to the standard dimensions of vane-type meters. The nominal sizes qp 0.6/1.0/1.5, and 2.5 are available.

Technical data of electronic unit		
Temperature range	15–105	°C
Temperature difference range	3–80	K
Response threshold	0.2	K
Length of control line	100	cm
Degree of protection	IP 54	
Power supply	Battery for 6 or 11	years
Ambient temperature	5–55	°C

Technical data measuring tube									
ULTRAHEAT	2WR605	2WR607	2WR615	2WR617	2WR621	2WR623	2WR536	2WR638	
Nominal flow rate q_p	0.6		1.0		1.5		2.5		m ³ /h
Maximum flow rate q_s	1.2		2.0		3.0		5.0		m ³ /h
Minimum flow rate q_i	0.006		0.01		0.015		0.025		m ³ /h
Mounting length	110	190	110	190	110	190	130	190	mm
Thread connection	G 3/4B	G 1B	G 3/4B	G 1B	G 3/4B	G 1B	G 1B	G 1B	–
Pressure drop Δ_p at q_p	140	55	60	140	130	130	190*	140	mbar
All versions in PN 16									* preliminary

Valid for Germany only: Following a decision by the PTB (German Federal Institute of Physics and Metrology), the values for the minimum flow q_i will change to twice the value stated in our documentation.

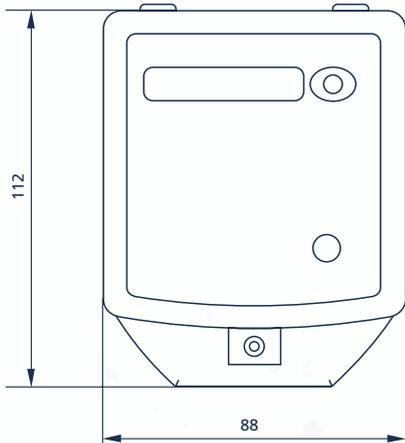
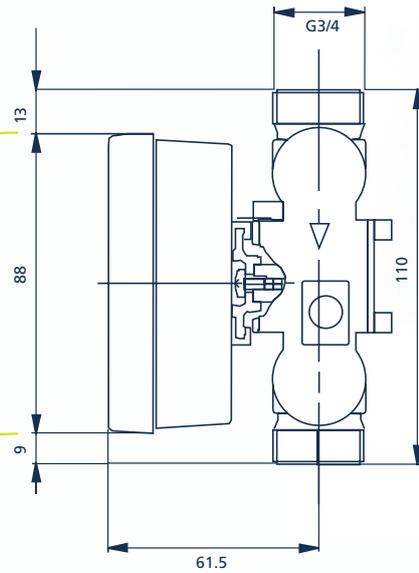
Enter a whole new world!

ULTRAHEAT XS with ultrasound

Meters that are not only accurate and permit easy billing but that are also absolutely reliable, long-life, and low-cost are in demand in building services technology. ULTRAHEAT® XS offers you all that - completely without mechanically moving parts, which are not required for ultrasonic measurement. The measuring tube has an all-metal design.



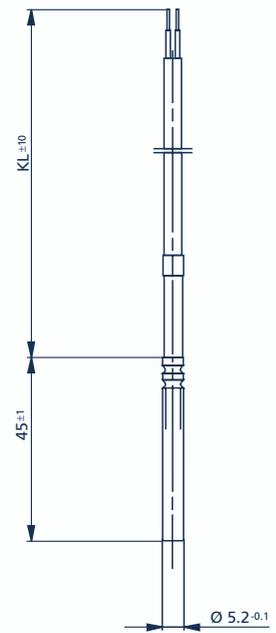
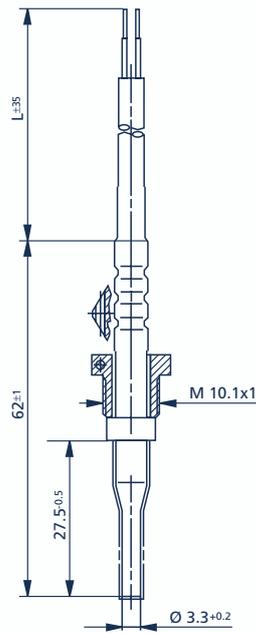
Dimension drawings



Calculator

Flow sensor 27.5 mm for direct mounting

Flow sensor 45 mm for pocket



All dimensions in mm

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