

xylem



PolluStat®

THERMAL ENERGY METERING THAT SUPPORTS YOUR BUSINESS AND CLIMATE GOALS

sensus
a xylem brand

Minimize Energy – Maximize Efficiency

Sustainable energy management and an overall reduction in consumption are of increasing concern when developing and improving the places where we all live and work – it's one of the reasons Sensus – a Xylem brand developed the very first mechanical thermal energy meter in the 1950s.

With the introduction of the new PolluStat® from Sensus, a Xylem brand, we are making a significant contribution to addressing the global challenges, as a critical component in heating and cooling systems designed to meet the increasingly stringent regulations. Based on state-of-the-art ultrasonic technology, PolluStat® provides the high levels of accuracy, reliability and remote

communications options you need for modern energy management systems.

Thanks to its built-in high-precision flow sensor, its consistent measurement performance and long operational life PolluStat can be used across a wide range of applications – ranging from local district heating stations to consumption billing for individual apartments. The ultrasonic technology used at the heart of the meter has a number of advantages. Due to its large measuring range, dimensioning errors are virtually eliminated while its application-optimized design enables its flexible installation in any orientation without loss of accuracy.

Flexible Technology and Communications

The new PolluStat® is Sensus' smartest and most flexible thermal energy meter. With a detachable calculator unit, it can be fitted in applications and sites with very limited space. Additionally, the PolluStat® can be connected to existing building automation systems and other consumption meters.

Insight analysis and real-time monitoring of data has never been easier. To support cable or wireless connectivity, PolluStat® offers a series of optional modules, which are installed directly in the factory or retro-fitted at any time, once deployed. In compliance with the 2018 amendment of the 2012 European Energy Efficiency Directive

(EED), more frequent and accurate energy consumption data enables consumers to better understand and control their own heating bills.

The extended benefits PolluStat® offers, via detailed recording of energy consumption, alarms and usage over time, go beyond simply ensuring correct bills that are provided to the end customer. When used effectively, this data enables thermal energy network operators to significantly reduce their maintenance costs, while helping to improve the efficiency, reliability and overall performance of their network.

PolluStat®

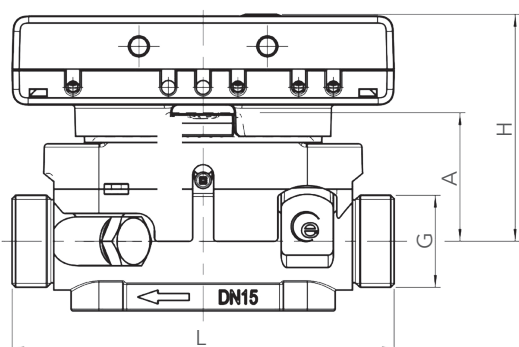


Ultrasonic thermal energy meter for heating and cooling

- ✓ Accurate and reliable data collection – ensures exact billing and energy consumption overview
- ✓ Scalable – supports a wide range of wired or wireless communication standards
- ✓ Remote reading capability – delivers instant insights of energy consumption without disruption
- ✓ Flexible installation – easily fitted in any orientation
- ✓ High-precision ultrasonic flow sensing – ensures maintenance free accuracy over its lifetime

Weights and dimensions

Calculator unit dimensions
75 x 110 x 34,5 mm



Meter dimensions

q_p	Nominal diameter	G (")	L (mm)	H (mm)	A (mm)	Weight (kg)
0.6	DN 15	3/4	110	65	37	0.720
1.5	DN 15	3/4	110	65	37	0.720
2.5	DN 20	1	130	65	37	0.770
3.5	DN 25	1 1/4	150	65	37	0.930
6	DN 25	1 1/4	150	67.5	39.5	0.930
6	DN 25	1 1/4	260	67.5	39.5	0.120
10	DN 40	2	200	73	45	1.580
10	DN 40	2	300	73	45	2.050

Smart Energy Distribution

World climate change and its impact have become an important topic for planners and architects of residential and commercial buildings, steering them more towards district heating and cooling (DHC).

This system distributes thermal energy through a pipe system from a central plant to individual offices, homes and apartments. A majority of the generated energy from district heating derives from a combination of recycled and renewable heat, making it a sustainable solution when transitioning from fossil fuels to more environmentally friendly, renewable and commercially viable energy sources. To achieve the EU climate

and energy framework's goal of reducing greenhouse gases up to 40% by 2030, the end consumer plays a vital role. With the new PolluStat®, Xylem offers a smart thermal energy meter, supplying timely and accurate data on consumer demands and early detection of inconsistencies in the thermal energy distribution network. PolluStat's precise and easy data read-out capabilities makes the billing of energy effortless.

Supporting customers with enhanced knowledge of their consumption helps to build awareness and at the same time, drives change towards a more efficient energy-saving culture.

Xylem Building Solutions

At Xylem, the needs and demands of our customers play a pivotal role in the development of our products. When planning and constructing large buildings and houses there are many technical aspects to consider in terms of energy efficiency and sustainability. At Xylem, we have not only

the engineering and technical know-how but also offer a broad range of high-quality thermal energy meters, pump systems and water treatment units to support all your application needs, including heating and cooling solutions. For more information, contact your local Xylem sales or go to xylem.com.



iPERL® (International)
Static water meter



PolluCom® F
Mechanical heat meter



LOWARA ecocirc BASIC Series
Efficient circulator pump



DIAVASO Mobile App Suite
Remote meter reading

Technical Data

Characteristic	q _p 0,6	q _p 1.5	q _p 2.5	q _p 3.5	q _p 6	q _p 10
Nominal flow q _p in m³/h	0.6	1.5	2.5	3.5	6	10
Minimum flow q _i m³/h	0.012	0.012	0.025	0.028	0.06	0.1
Accuracy class	2 or 3 per EN 1434					
Ratio q _i /q _p	1:50	1:125	1:100	1:125	1:100	1:100
Maximum flow q _s in m³/h (short-term)	1.2	3	5	7	12	20
Start-up value in m³/h (average value)	0.006	0.006	0.012	0.014	0.03	0.05
Temperature measurement range	0-150°C (with cooling metering 0 to 50°C)					
Temperature difference range	3-100 K (with cooling metering -3 to -50 K)					
Minimum temperature difference	> 0.05 K (with cooling metering < -0.05)					
Permissible temperature in the flow sensor	Heating meter 15-90°C (Also as variant 15-130°C or Hybrid 15-120°C) Cooling meter 5-50°C					
Temperature measurement cycle	2/60 s (dynamic); with network operation 2 s					
Flow measurement cycle	2 s					
Through-pass value at 0.1 bar, pressure loss in m³/h	1.1	1.7	2.3	2.4	4.2	9.5
Pressure loss at q _p in bar	0.03	0.13	0.12	0.21	0.2	0.11
kvs value (pressure loss at 1 bar pressure loss in m³/h)	3.5	5.4	7.2	7.6	13.4	30.2
Permissible operating pressure in bar	16					
Length of the connecting cable m	0.85					
Permissible ambient temperature	5-55°C at 95% rH					
Electromagnetic environmental conditions	Class E2					
Mechanical environmental conditions	Class M1					
Protection class	IP 65					
Storage temperature	-20 ... 55°C					
Relative humidity	95%					
Battery life	10 years / except for pulse output 6 + 1 years					

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to xylem.com



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