



Introducing PolluCom F

A HIGH-PERFORMANCE METER THAT ENABLES MORE EFFICIENT HEATING AND COOLING NETWORKS FOR A SMARTER, GREENER FUTURE.



PolluCom F

A smarter thermal energy meter



The new PolluCom F is the next generation mechanical thermal energy meter from Sensus. It builds on the unique functionality of the highly successful PolluCom E meter, with the addition of many useful new features, including:

- A comprehensive range of communication options that facilitate simple integration of energy measurement into your heating/cooling network solution - including Wireless M-Bus as well as various wired connection options via a clip-on optical cable
- The option to be installed on either the inlet or on the outlet pipe, to simplify in-field installation and product ordering
- The adjustable display can be rotated independently from the main meter body, to provide an easier reading

PolluCom F is ideally suited to residential sub-metering in heating/cooling distribution systems. The high-precision flow sensor, enables the meter to be used in a wide range of applications, from district heating exchange stations to consumption billing for individual apartments. It can also be supplied as an optional combined heating /cooling meter.

Not only is PolluCom F an extremely reliable, accurate, simple to install and above all, easy to use and operate meter, it's in-built Wireless M-Bus communications, simplifies integration into a new or existing walk-by /drive-by AMR system and provides wired communication options for customers who wish to integrate the meter into a wired network.

The PolluCom F metrology benefits from field-proven technology that has been providing stable, reliable, very low-risk, thermal energy measurement solutions for over 20 years.

The benefits of using single-jet mechanical metrology vs ultrasonic static metrology in heating/cooling system applications

Ultrasonic meters utilise the speed of sound through the water to measure flow, but this is affected by a number of parameters including temperature, density, viscosity, contaminants from old pipework and non-laminar flow profiles including swirl. To keep costs as low as possible, most ultrasonic meters use a single measurement path which only calculates the speed across a very small cross-section of the flow. The metrology algorithms must then make an assumption that the flow profile is laminar to determine the volume of fluid that has moved through the meter. Upstream and downstream bends and valves, are particularly problematic as they cause perturbations in the flow which makes the flow non-laminar, which is why most ultrasonic meters require straight pipe sections before and after the meter, to ensure readings are accurate.

The ultrasonic meter must also compensate for the temperature of the fluid. If the fluid contains glycol, then this may also cause a misreading as the density and viscosity of the fluid may be different to that used to calibrate the meter.

Single-jet, mechanical meters face none of these issues as they directly measure the speed of rotation of turbine blades in response to flow from a jet of fluid. The measured rotation is irrespective of the temperature and flow profile of the fluid entering the meter, making it immune to these effects. Mechanical meters also have a better cost/performance ratio, making them the ideal choice for district heat metering applications.

Stand out features & benefits

Features	Benefits
 Single jet measurement principle provides the best stability and reliability.  Extremely stable and reliable measurement developed over 45 years of experience on single jet metrology. Millions of single-jet meters are operational in the field.	Very low failure rate minimises maintenance costs. Reliability and stability ensures customers can be confident in their usage.
 Excellent measurement results even for Glycol application.	Measurements are less influenced by changing of glycol concentration (unlike some other static measurement principles). Minimal deviation between real value and measured value ensures billing accuracy.
 Very attractive cost performance ratio.	Attractive product cost for customer verses static metrology solutions.
 No calming section needed.  It is unaffected by swirl and asymmetric flow profiles caused by bends and valves, ensuring no straight pipe lengths upstream or downstream of the meter are needed.  Conversely, many ultrasonic static meters require straight lengths of pipe, before and after the meter, to ensure accurate measurement.	Simpler to install in confined spaces or into compact heat exchangers. No effect on measurement if meter is placed immediately before or after pipe bends, T-junctions and valves.
 The display housing can be rotated about its centre, irrespective of the meter body orientation, making manual meter display reading and connection of an optical reading cable more straightforward.	Easier and less time consuming for customers and technicians to read the meter accurately.
 Wireless M-Bus certified according OMS 4.0.2 guarantees best interoperability with OMS certified data reading system.	Compatible with all OMS reading or data collection systems. Customers can be assured it will be compatible with their existing OMS compliant systems.
 3 types of telegrams in both C1 and T1 mode wireless M-Bus communication: "Long", "Short" and "very short."	Flexible choice for customer to have walk-by/drive-by or stationary data collection.
 Up to 13 years battery life time for the wireless M-Bus variant (15 mins interval with long telegram in T1 mode).	Cost saving. In some countries there is no requirement to exchange the meter after a fixed period of time.
 User defined telegram on M-Bus communication.	The ability to customise a data telegram and read out only the data required, saves time and cost.
 High speed transmission with M-Bus and optical interface.	Time saving on reading the data. Time saving by M-Bus/optical data reading.
 The PolluCom-F meter can be read by Sensus DIAVASO software making it very easy to access data/alarm information using walk-by/drive-by AMR techniques.	Easy to use, and customer friendly. Time can be saved on reliable, accurate mobile data collection ensuring quick problem detection and correction is possible.

DIAVASO – The Mobile App Suite for Drive-by with SensusRF radio



Collection Mobile
For managing the mobile meter reading process



Collection Station
For simply drive-by and small scale fixed network



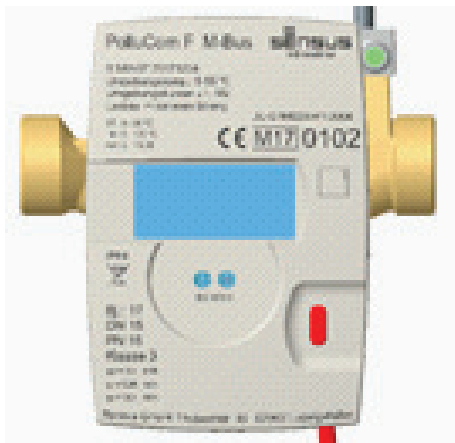
Configuration & Service



SensusRF Finder



Data Logger
Tools for meter installers and field technicians



Diavaso is a suite of apps for remote meter reading using smartphones or tablets. The Diavaso app suite consists of 5 individual apps; SensusRF Finder, Collection Station, Collection Mobile, Configuration & Service, and Data Logger. These apps can be used individually or in combination, depending on your requirements for remote meter reading (AMR) or small scale fixed network (AMI). The mobile applications run on an Android™ device and communicate with the meter via the SensusRF radio transceiver SIRT (Sensus Interface Radio Tool).

The Diavaso apps are compatible with all SensusRF enabled meters and repeaters. The Diavaso apps are designed to be used for meter installation, remote reading, maintenance and configuration of meters and repeaters. The Collection Mobile also includes a server based interface (web portal) for managing the meter reading workflow, reporting as well as data exchange with the billing system. See datasheet (LS7000) for detailed information.

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 www.xylem.com

About Sensus, a Xylem brand

Sensus, a Xylem brand, helps a wide range of public service providers—from utilities to cities to industrial complexes and campuses to do more with their infrastructure to improve quality of life in their communities. We enable our customers to reach farther through the application of technology and data-driven insights that deliver efficiency and responsiveness. We partner with them to anticipate and respond to evolving business needs with innovation in sensing and communications technologies, data analytics and services. Learn more at sensus.com



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