

UTM10

Non-intrusive ultrasonic liquid flowmeter

CONTROL &
INSTRUMENTATION
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Introducing the UTM10 - the new ultrasonic clamp-on flow and energy meter for chilled and hot water applications from Spirax Sarco.

Easy to install and maintain, it provides accurate and repeatable measurement readings on clean fluids and liquids with small amounts of solids or aeration, without line shutdown or pipe penetration.

- Compact all-in-one package supplied ready for easy installation into your application.
- Reduces costs with rapid, non-invasive installation that requires no pipe penetration and no line shutdown.
- No separate flow computer or mechanical connections required (no inline flanges, pipe fittings, strainers or filters).
- No fluid compatibility issues and no contamination risk (especially for systems using distilled or de-ionised water).
- Precise, reliable system accuracy of $\pm 1\%$ of rate over a 40:1 bi-directional flow range.
- No moving parts, no mechanical wear and no need to shut down your process for maintenance.
- The knowledge to provide effective solutions and support for our customers.



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Please note: The UTM10 should not be strapped directly onto the pipe if it is above 185°F.

The UTM10 non-invasive ultrasonic transit-time flowmeter is available in two versions:

Ultrasonic transit-time flowmeter UTM10-S

The UTM10-S ultrasonic transit-time system with clamp-on transducers is a stand-alone flowmeter that provides reliable flow velocity readings for fluids and sizing heat exchange packages.

Transit-time ultrasonic technology is also an excellent option for measuring single phase liquid condensate return, since it does not create pressure drop.

Ultrasonic transit-time energy flowmeter UTM10-E

The UTM10-E ultrasonic transit-time system with clamp-on transducers combined with dual strap-on RTDs provides accurate and reliable energy measurement of chilled or hot water systems. Non-intrusive installation. Operational in minutes.

Shutting down a process for up to 24 hours or longer to install inline flowmetering equipment can prove expensive and is almost always inconvenient – especially where temperature sensitive environments are concerned.



But because the UTM10 uses clamp-on transducers attached to the outside of existing pipes (including strap-on energy measurement RTDs with the UTM10-E) rapid installation is 100% non-intrusive, completely without the need to bypass or modify existing pipework and virtually eliminating process interruption or downtime.

Since the UTM10 has no moving parts to repair or replace, there is no mechanical wear which means little or no future maintenance liability or process disruption.

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The flexible, economical measurement system

As a non-intrusive clamp-on, the UTM10 is capable of measuring liquids in line sizes from ½" to 80" (DN12 to DN2000). It is especially economical for large pipe diameters of 4" (DN100) and upwards, where inline installation costs may be prohibitive. Even in smaller line sizes, the low maintenance feature makes the total cost of ownership of the UTM10 attractive.

Transducers

Transducers for ½" to 1½" (DN15 to DN40) pipelines are pipe size and pipe material dependent. The two piece transducer fits around the pipe and is hand tightened using wing nuts. Installation is both simple and fast.

The transducers for line sizes of 2" (DN50) and larger come in standard, large pipe and high temperature versions. The easy-to-use electronics or USP software guide the user in setting the transducer spacing.

An IP68 (NEMA 6P) transducer option is also available for indefinite submersion (seawater equivalent) up to 100 feet (30 m).

“ The UTM10 offers ease of installation and low maintenance. This is the technology of the future. ”

Lindsay Norris

Group Product Management Executive, Flowmetering

Optimizing your energy performance with Spirax Sarco

Of all the costs your company can control, your energy bill is one of the largest. With the high cost of fuel, it is increasingly important to accurately meter the energy you consume - because the better you understand how and where you use your energy, the easier it is to manage and reduce it.

Since your chilled or hot water systems account for a significant proportion of the money you spend on energy, our comprehensive range of flowmeter products - from inline and insertion flowmeters to non-invasive ultrasonic flowmeters - can give you a better understanding of your costs as the first step towards making valuable savings and reducing carbon emissions.

Spirax Sarco can offer you a large range of technologies to suit every different application, so we can always recommend the right solution to help you reduce energy consumption, improve profitability and meet carbon footprint reduction targets.

You can be confident that we have the expertise you need to help you meet the challenges you face in managing your energy costs and making yours a more competitive and sustainable business.

A temporary or permanent solution in one

The UTM10 is an outstanding solution for heat or chilled flowmetering where you want to measure energy by having a flowmeter on the supply line along with temperature sensors on the supply and return lines. As the UTM10 can be easily commissioned into operation it can also be placed temporarily on liquid flows to determine reliable and accurate maximum, minimum and average flow velocities, or for an instant energy system survey, audit or simply troubleshooting.



Features:

- ATEX Certified for hazardous area installation in North America and Europe.
- The reassurance of a comprehensive 12-month Standard Spirax Sarco Warranty.
- General Safety: UL 61010-1, CSA C22.2 No.61010-1 and EN 61010-1
- Hazardous Location: Class I Division 2 Groups C, D; Class II and III, Division 2, Groups C, D, F and G for US/ CAN; Class I, Zone 2, AEx nA IIB T6; ATEX II 2 G EEx nA II T6: UL 1604, CSA 22.2 No. 213, EN 60079-0 and EN 60079-15.
- CE: EN 61326-1:2006 on remote transducers with conduit.

The UTM10 features a compact, rugged aluminium enclosure ensuring a long service life, with an easy to read display that includes:

- Display options for rate of flow or total flow.
- Energy measurement set to user defined engineering units.
- Programming via keypad. Optional Windows® based software utility allows users to configure, calibrate, and troubleshoot from any Windows® based PC.
- Modbus RTU, BACnet MS/TP, BACnet TCP / IP, and Modbus / IP digital communications along with standard analogue and pulse outputs available. An optional Ethernet connection is available as well as a programming port.



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