



**SIEMENS**

**SITRANS F**

## Introducing superior accuracy for liquid hydrocarbon applications

Thanks to the WideBeam flow technology, the latest ultrasonic flowmeter from Siemens, the SITRANS FUT1010, measures liquid hydrocarbons with custody transfer accuracy. Using TransLoc, the transducers are permanently mounted onto the spool, enabling flow calibration as well as protection from harsh environments.

The SITRANS FUT1010 flowmeter is a perfect match for the requirements of the hydrocarbon industry. Featuring the WideBeam ultrasonic transit time technology, it achieves highly accurate flow measurement. And with the TransLoc™ mounting system, the transducers are permanently mounted on the outside of the spool, preventing contact with the medium.

This means no cavities or clogging by high paraffin liquids found in many hydrocarbon applications.

TransLoc allows for custody transfer accuracy in a wide array of transportation and downstream liquid hydrocarbon applications such as:

- Pipeline balancing
- Terminal transmix metering
- Refinery blending
- Airport facility management
- Petrochemical processing
- Plant optimization

[siemens.com/FUT1010Liquid](https://www.siemens.com/FUT1010Liquid)



#### SITRANS FUT1010 Technical Specifications Liquids

Calibrated accuracy	±0.15% of flow (four path version)
Repeatability	±0.05% to 0.1% of actual reading
Flow range	±40 f/s (±12 m/s), bi-directional
Temperature range	-20 °F to 200 °F (-28 °C to 93 °C)
Spool diameters	4 to 24 inches (DN100 to DN600)
Data inputs	4 x 4-20 mA
Data outputs	4 x isolated 4-20 mA, 2 x 0-10 VDC, 4 x digital pulse outputs (2x open collector, 2x 0-5V TTL), one each for positive and negative flow
Communication	RS232 (standard) and Modbus RS485/422 (optional)
Enclosure ratings	IP65 (NEMA 4X) and IP66 (NEMA 7)
Approvals	INMETRO, CSA, FM, CRN and ATEX

#### Trusting performance

Being that the performance of the SITRANS FUT1010 meets the strict requirements of OIML R117 and API, it is perfectly suitable for all types of high-precision, custody transfer applications. The inclusion of the WideBeam technology further enhances this capability by providing stable performance that enables continuous operation in applications where the measured media is contaminated by water or gas.

The SITRANS FUT1010 features output options that include liquid density and API, making the flowmeter a perfect replacement for intrusive densitometers. It also comes with complete application and operation diagnostic functions that assure calibration and operational integrity.

To accommodate varying customer accuracy requirements, the SITRANS FUT1010 is available with two, three or four paths and IP65 (NEMA 4X) or IP66 (NEMA 7) enclosures. And if the installation requires it, it can be delivered with a ten diameter upstream and/or five diameter downstream tube and a flow conditioner.

Available spool sizes include 4 to 24 inches (DN100 to DN600) with ANSI Class 150, 300 and 600 flange ratings.

#### TransLoc mounting system

The SITRANS FUT1010 features the recently introduced permanently mounted transducer system, TransLoc, which

is a highly accurate and reliable custody transfer solution for the hydrocarbon industry. Using TransLoc, the WideBeam transducers are permanently mounted onto the spool, permitting flow calibration and subsequent use

in custody transfer accuracy applications. The TransLoc system seals the transducers, completely protecting them from harsh environments while the IP65 enclosure rating and the use of dry couplant guarantees high performance and low maintenance.

#### WideBeam signal processing

A well-known feature of the SITRANS FUT1010 is Siemens' WideBeam transit time technology. With WideBeam, flow measurement precision is increased by reducing the meter's sensitivity to changes in the medium's physical properties. The resonant frequency of the pipe wall is used to transmit the energy into the media with the wall acting as a waveguide. This results in a strong, coherent signal, which is the basis of the meter's high accuracy.

#### Best-in-class

As a manufacturer of best-in-class flowmeters, Siemens offers a ground-breaking technology wrapped in an innovative design. Combine this with 40+ years of presence within the field of ultrasonic flow measurement, and you can rest assured that you are getting the right solution. There is no need to search further.

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