

# Sentinel LCT8

High-accuracy ultrasonic flow meter

# Find pipeline peace of mind.

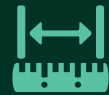
In pipeline flow metering applications, miscalculations or false alarms cost money. The right technology can reduce the uncertainty inherent in flow measurement. It gives pipeline operators confidence in their process measurement and the insight they need to avoid problems when revenue, the environment, or reputations are at stake.

The Sentinel LCT8, the latest addition to the high-accuracy line of ultrasonic flow meters from Panametrics delivers custody transfer-level measurement—even in the unstable conditions typical of pipelines. With eight measurement paths, it gives operators better visibility into what's happening in their pipelines, helping them make informed decisions and minimize risk.



## Pipeline Leak Detection

Indication of loss of product flow from one point to another



## Liquid Custody Transfer

Measurement of product transferred from one party to another that will be used for basis of payment



## Allocation Measurement

Measurement of auditable assets



## Critical Liquid Processes

Any measurement requiring high accuracy and low uncertainty



# Understand your alarms.

## Sentinel LCT8 provides diagnostics data for leak detection.

Sensitive leak detection systems may keep events from occurring, but they also produce false alarms that interrupt service and drive up operating costs.

Changing conditions within the pipeline caused by such things as batch interfaces, pumps and valves, or ambient temperature fluctuations, trigger false alarms. The flow meters that monitor these conditions also can be responsible.

The enhanced diagnostics of Sentinel LCT8 compensate for changes in flow and give operators better confidence to determine real from false alarms. Sentinel's data of flow transient conditions over time can yield diagnostic information about different size leaks, which then can help operators establish the threshold for alarm triggers.

The more accurate the data, the more reliable the model is to determine what is a leak and what is a false alarm.

## Sentinel LCT8 enables Panametrics Digital Vision.

Sentinel LCT8 has been designed for a predictive future that can improve meter performance and drive more operational insight for better pipeline management.

With connectivity and real-time access to customer data, the Sentinel LCT8 can be remotely diagnosed for alarm/incident support and for proactive maintenance from Panametrics global technical experts.



# More paths for more performance.

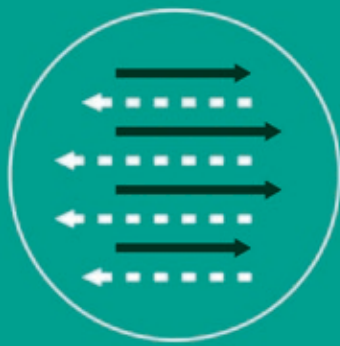
The Sentinel LCT8 uses eight measurement paths to cancel the effects of swirl and other flow disturbances caused by viscosity changes or installation effects. The eight-path design supports difficult applications with poorly developed or changing flow profiles, without flow conditioners and with only five diameters straight run requirement.

The meter's proprietary algorithms make it viscosity independent, providing stable performance with custody transfer-level accuracy and repeatability and with no need to recalibrate when fluids change.

Eight paths also mean faster response for monitoring and analyzing processes. This minimizes downtime for yield management and asset protection, while providing actionable data when issues occur.



Traditional 4-path design



New 8-path design



# Rugged, reliable, and ready to work.

The Sentinel LCT8 features a compact, industrially-designed system that's as rugged as it is innovative. A cast flow cell with no exposed buffers or cables allows for seamless integration into a pipeline or process, with a smaller installation footprint.

Transducers are enclosed in explosion-proof housings that require less buffer from the fluid for better accuracy. They can be replaced without special tools, even under pressure.

## All the benefits of ultrasonic flow measurement.

Ultrasonic flow metering has become one of the fastest growing technologies for pipeline applications. Unlike older mechanical technologies like turbine and positive displacement that are subject to wear, and Coriolis meters that have pipe size limitations, ultrasonic advantages include:

- No drifting or required periodic calibration
- No pressure drop
- No restriction in the pipe
- No moving parts
- No filters or strainers to wear out

**Advantages of the Sentinel LCT8 include:**



8 paths



Reduced  
straight run



Viscosity  
independence



Compact  
industrial  
design



Advanced  
diagnostics



Ultrasonic  
advantages



# Greater accuracy. More possibilities.

The Sentinel portfolio of high-accuracy liquid flow meters covers a range of operating temperatures and applications, features both cast and welded designs, and offers the robust transducer technology and reliable and cost-effective performance you expect from flow meters backed by more than 50 years of Panametrics expertise. The Sentinel LCT8 adds even more capability to the mix.

From helping determine which Sentinel product solves your particular challenge to installation, commissioning, data analysis and service support, Sentinel's global team brings you some of the industry's strongest experience in ultrasonic flow metering.

## Liquid high-accuracy meters



**Sentinel LCT8**  
Eight-path accuracy  
under changing  
conditions



**Sentinel LCT4**  
Optimized, cost-effective  
four-path design



**Sentinel LCT**  
Buffered transducers for  
extended temperature  
range

## Liquefied natural gas high-accuracy meters



**Sentinel LNG**  
Buffered transducers for  
cryogenic measurement