



# Smith Meter® Ultra™ 8c

The latest innovation from TechnipFMC



# Backed by 90+ years of custody-transfer experience

Our technologically advanced ultrasonic meter is backed by over 90 years of custody transfer experience and the expertise that goes along with it. Our engineers, service personnel and measurement specialists understand no two applications are alike and work with you from beginning to end – and beyond – to make sure you get the solution that’s right for you. That experience, combined with our commitment to quality, means that our Ultra 8c ultrasonic meter will work in the field with the accuracy you need, and with the capability and performance that your dynamic and competitive market demands.

## Features

- ▶ The Ultra Series meters have improved software, including a more robust diagnostics tool, more memory for logging events, a simple-to-use touch-screen user interface, and more flexible communications options, all of which make the Ultra Series meters a data tracking and analysis tool.
- ▶ Advanced digital filtering, combined with world-class testing in TechnipFMC’s Flow Research and Test Center, makes the Ultra Series meters unsurpassed in measurement performance for high and low viscous products and other difficult applications.
- ▶ The crossed path measurement feature of the Ultra 8c improves performance of cross-flow and swirl compensation, allowing for a shorter straight run before the meter.



## New for the Ultra Series

- ▶ Added transducers give the Ultra 8c crossed measurement paths across four separate planes, boosting cross-flow and swirl compensation and measurement accuracy over a wider range of product type and flow.
- ▶ Improved measurement ability allows for lesser uncertainty in flow calculations, and more reliable accuracy, making it ideal for custody transfer.
- ▶ The new Ultra 8c technology enables our latest ultrasonic meter to accurately measure heavy fluids with higher viscosity and slower flow rates, and is a cost-effective solution for crude oil, refined products, and liquid petroleum gas, among other applications.



Access parameters, diagnostic information, trending and system parameters from the optional touch screen interface.

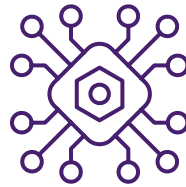


### Ultrasonic meter cost effectiveness

- ▶ The straight-through run of an Ultra series meter results in an almost non-existent pressure drop, reducing pumping costs and operating expense.

The lack of moving parts means that little maintenance is required in the Ultra 8c meter, making it a smart choice for severe operating environments and a boost to your operational flexibility and maintenance costs. Additionally, all of our Ultra 8c meters are tested in TechnipFMC's industry-leading ISO/IEC 17025:2015-accredited Flow Research and Test Center, which can simulate the widest range of flow conditions in the world. Our test capability gives you the assurance no one else can, that our Ultra 8c ultrasonic meter works with the accuracy you need for leak detection and custody transfer, including for high-viscous, heavy crude oils.

Along with all of the technological advancements for improved accuracy and intelligence of the Ultra 8c, it also comes with the cost-saving benefits of all ultrasonic meters. With no moving parts, maintenance is minimized. As a straight-through meter, pressure drop is essentially eliminated, reducing operating costs. And our communications features means there's no need for extra wiring or enclosures.



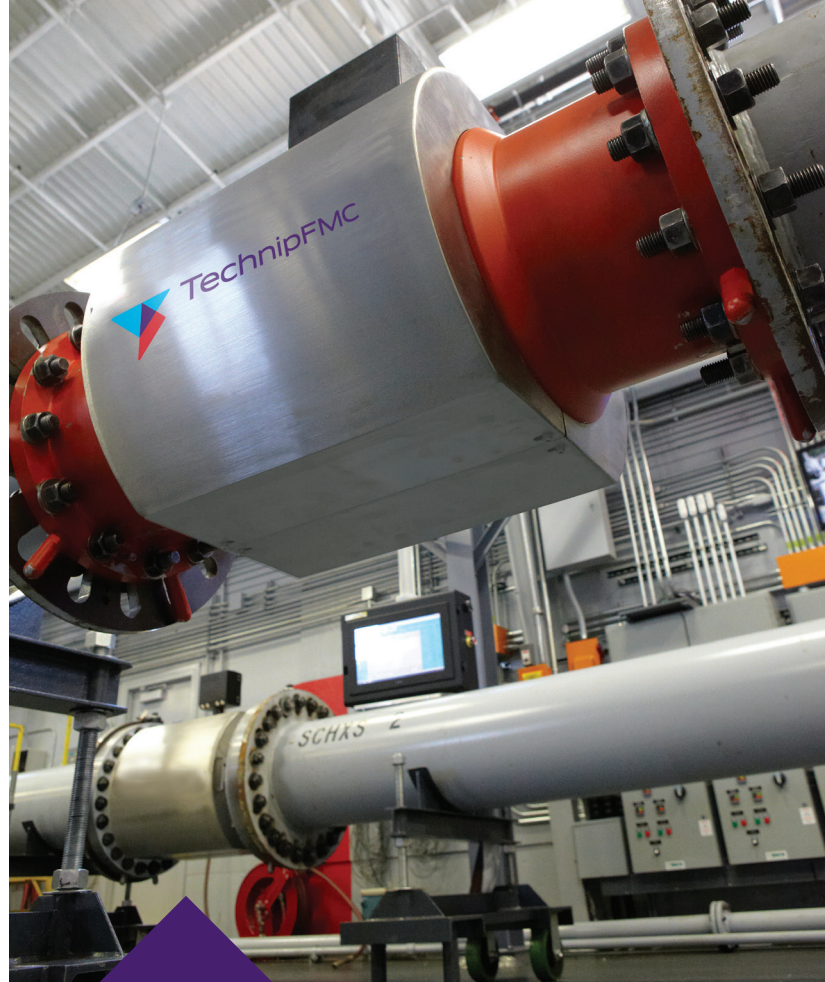
### Ultra 8c electronics

- ▶ Easy-to-use, intuitive touch-screen interface, available in an explosion-proof, Class I Div 1 housing
- ▶ Enhanced on-board memory expands logging of historical data and events; upgrade available that extends logging to 90 days
- ▶ Flexible communications options, including a fiber-optic Ethernet connection
- ▶ Web-browser-based user interface
- ▶ Efficient ultrasonic signal transmission and processing
- ▶ Increased pulse output resolution and processing speed
- ▶ Upgraded digital signal filtering to eliminate drift in analog components from aging, or extreme temperatures
- ▶ Advanced signal filtering for boosting signal strength and performance in difficult applications



### Added measurement paths increase ultrasonic meter performance

- ▶ Adding more transducers to our Ultra Series meters gives the Ultra 8c ultrasonic flowmeter crossing measurement paths across four planes, increasing its ability to detect and correct for product swirl and cross flow and allowing for shorter straight runs before measurement.
- ▶ The Ultra 8c's additional measurement paths more accurately measure asymmetrical flow, extending the meter's linearity through the laminar and transition zones and enabling it to analyze flow over a wide range of velocities and fluid profile regimes.
- ▶ The additional measurement crossing paths enable the Ultra 8c meter to inherently cancel the effects of swirl on all four measurement planes.
- ▶ The additional measurement paths reduce measurement uncertainty enabling the Ultra 8c meter to calculate flow quantities quicker, more accurately, and on smaller volumes.



### Unparalleled performance verification

- ▶ The Ultra 8c ultrasonic flowmeter, like all TechnipFMC's products, is laboratory tested in our Flow Research and Test Center, which is accredited through NVLAP Lab Code 200939-0 to ISO/IEC 17025:2015 and meets all OIML standards.
- ▶ The Flow Research and Test Center can conduct testing over the widest dynamic range of any facility in the world, giving you the assurance of the accuracy of our Ultra 8c meter under almost any condition and for nearly any kind of product.
- ▶ TechnipFMC's technicians can test and prove our meters for nearly every flow condition, from laminar to turbulent, up to 6,670 m<sup>3</sup>/h (42,000 bph) and on viscosities up to 500 cSt – the widest dynamic range in the world.



## **A complete monitoring system**

The Ultra 8c offers advanced cross-flow and swirl compensation, an intuitive touch-screen interface and an array of communications options, allowing you to connect your ultrasonic meters to a network and easily monitor your data remotely. Our latest ultrasonic meter also offers a state-of-the-art interface with diagnostic capabilities, which allow you to monitor and analyze your product flow from almost anywhere.

With advanced diagnostic features, physical property estimates and configurable alarms, the Ultra 8c is more than a meter, it's a complete monitoring system.

## **USA**

1602 Wagner Ave.  
Erie, Pa. 16510  
ms.responsecenter@technipfmc.com  
Tel.: +1 844 798 3819

## **Europe**

Regentstrasse 1  
25474 Ellerbek, Germany  
ms.responsecenter@technipfmc.com  
Tel: +49 4101 304 333

**TechnipFMC.com**

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