

## **Superior accuracy in coriolis flow and density measurement for the real world**

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### **Multivariable Coriolis flowmeter – with the highest measuring accuracy for custody transfer applications and critical density or concentration determinations**

Whether in custody transfer applications or when meeting stringent product quality requirements – superior measuring accuracy is essential in many industrial applications. Historically, high accuracy levels were only achievable under ideal circumstances, meaning stable process conditions and true single-phase homogeneous fluids. In the real world, as we know, these ideal conditions don't often exist within the applications that flowmeters are being tasked to perform.

With this in mind, the Promass Q has been developed specifically for these kinds of challenging and often critical applications. It guarantees unmatched accuracy for mass flow, volume flow, and density determination:

- Error-free measurement in custody transfer applications in mass or volume units
- Highly accurate fluid density measurement and concentration determination serving as a final product quality indicator

In addition, with the innovative and worldwide unique Multi-Frequency Technology (MFT), superior measurement performance is realised in many process control applications with fluids containing entrained gas. MFT is a real-time compensation for overcoming the problem of measuring fluids with entrained gas accurately. With MFT the same set of dual tubes are excited at two different resonant frequencies (modes) simultaneously. The way these two modes react – when exposed to fluid with the same amount of entrained gas – is significantly different. It is through analyzing the unique resonance properties of the two oscillation modes that makes it

possible to effectively and actively compensate for the associated measurement error.