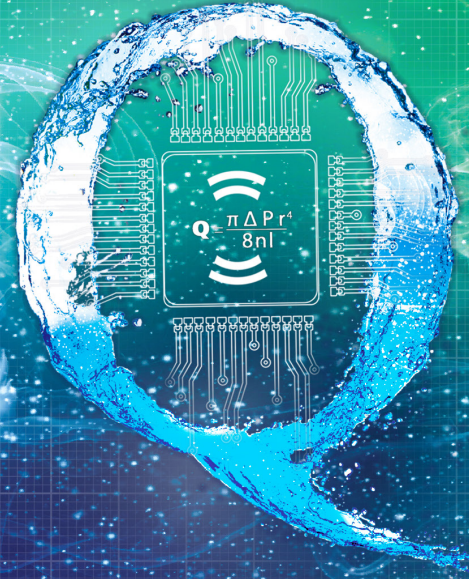


## Harnessing

# 5 Reasons to Include Transonic Flow Measurement in Your Next Medical Device



Today's medical equipment is highly sophisticated, but a surprising number of device categories have seen little innovation over the past several years. It is not uncommon for new product introductions to offer only modest feature enhancements, and it is sometimes difficult to distinguish offerings from one manufacturer to the next. This is where *Transonic Inside™* flow measurement solutions can help.

For any device that works with liquids, whether it be for circulation, filtration, oxygenation, suction, steam ablation, infusion, or other purposes, Transonic can make the device more unique and effective by providing precise, quantitative flow-related parameters.

## Here are 5 important reasons to consider including Transonic flow measurement in your next generation device:

1

### Accuracy

Many devices on the market today only estimate flow using pump metrics or algorithms. These estimations can be inaccurate or misleading due to a variety of factors including potential recirculation, occlusions in the circuit, or leakage. Transonic's transit time ultrasound flow measurement provides true flow that improves accuracy and removes guesswork. For example, when performing delicate procedures such as retinal surgery, precise flow control can help surgeons remove precise amounts of vitreous debris while delicately maintaining interocular pressure.

2

## Confirmation of Performance

Transonic flow measurement technology can be used in conjunction with pump controls and other system parameters to confirm that all aspects of the system are running effectively and efficiently, and to alert users when there are issues. For example, effective hemodialysis depends on the delivery of the dialysis prescription from the device to the patient. Often, accurate flow measurements expose issues with calibration of the hemodialysis pump itself. Transonic measurements onboard a hemodialysis machine can provide the ultimate guarantee that equipment is working optimally.

3

## Early Warning Indicators

Tracking changes in volume flow and derived parameters can provide early warning of procedure complications and/or the onset of physiologic distress. Custom alarms can be integrated with the device to alert users immediately as these changes occur.

Some of the alerts, which can be integrated into devices with *Transonic Inside*<sup>™</sup> are detection of bubbles in an extracorporeal circuit, early clotting/thrombosis indications for oxygenators, and immediate sensing of changes to volume flow.

4

## Electronic Documentation

Unlike tactile, qualitative methods of confirming flow, such as feeling for a pulse during CABG surgery, Transonic's transit-time flow ultrasound measurements are quantitative and can be easily recorded for detailed procedure documentation and potential integration with hospital information systems. Capturing meaningful quantitative data is becoming increasingly important in the U.S. and many other developed countries where quality metrics and documentation are being tied to hospital/provider reimbursement.

5

## Custom Parameters

There are many potential custom parameters that can be derived from Transit-Time Flow Measurement (TTFM) and Ultrasound Dilution Technology (UDT). Transonic can help device manufacturers create new parameters that enhance device performance and create competitive differentiation. Transonic's R&D team works with OEM partners to design and build these new and potentially ground-breaking parameters.



To see how *Transonic Inside*<sup>™</sup> OEM solutions can improve your device's performance and separate it from the competition, contact Wayne Bower, OEM Product Manager at [wayne.bower@transonic.com](mailto:wayne.bower@transonic.com).