Transonic® Flowmeters

Versatile Systems to Optimize Flow

Choose the Flowmeter That Best Fits Your Needs

Establishing adequate blood flow is a prime objective of any cardiovascular procedure. But without definitive measurements, one really doesn't know exact flow. Transonic's Flowmeters give you this information.

Moreover, you can choose the flowmeter that best fits your needs. They include:

- Single-channel Optima Flowmeters (key- activated or non key-activated)
- Dual-channel Optima Flowmeters (key- activated or non key-activated)
- An Optima Flowmeter integrated into the state-of-the art Aureflo

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THE MEASURE OF BETTER RESULTS.

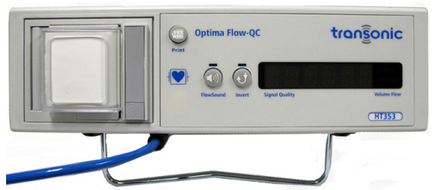
Flow-Assisted Surgery to Optimize Outcomes

Cardiac Thoracic Neurosurgery Vascular Transplant Microsurgery

Optima Flowmeters®

Transonic Optima® Flowmeters provide immediate, quantitative flow measurements to ensure vessel and graft patency with unsurpassed accuracy and resolution.

The Optima Flowmeter complements a full line of Perivascular Flowprobes for vessels from 0.5 mm to 36 mm in diameter and our Tubing Flowsensors for tubing with 1/8 to 1 1/4 inch outer diameters.



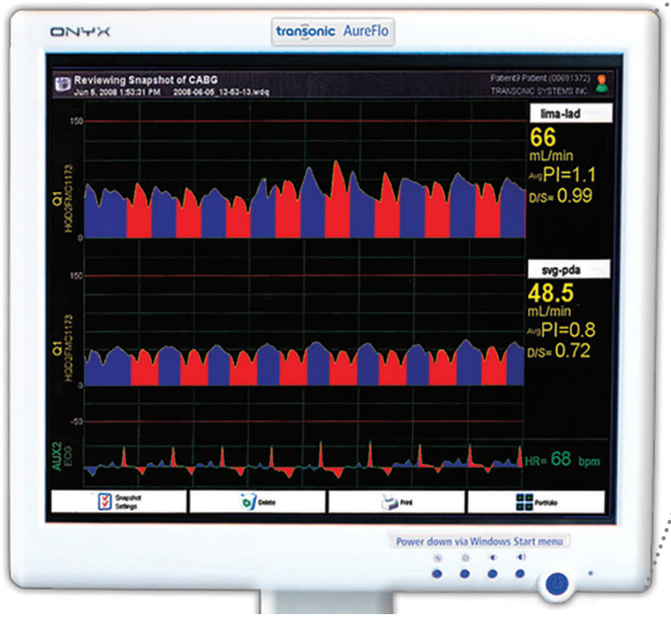
HT353 Single-channel keyless Optima® Flowmeter

HT364 Dual-channel key-activated Optima® Flowmeter permits simultaneous measurements with two Flowprobes.

Key-activated and Keyless Systems

- Universal System: HT353 single-channel and HT363 dual-channel Flowmeters for purchase. No keys required for use.
- Key-activated HT354 single-channel and HT364 dual-channel Flowmeters for US and Canada placement. An Optima Key is required for each use.

The AureFlo®



AureFlo® display of recorded LIMA-LAD volume flow waveform (systolic flow volume in red; diastolic in blue). Also displayed are mean flow in mL/min, pulsatility index (PI), D/S Ratio, ECG tracing and heart rate.

Versatile Display

- Touch-screen PC uploaded with FlowTrace® software
- Easy to read, high contrast display
- Display can be connected to an OR monitor

Intuitive Operation

- Quick and easy data entry
- Measure, capture, store and retrieve flow information

Archive & Retrieve

- Enhance operative notes and referral feedback
- Review case recordings remotely
- Print selected waveforms for reference, analyzing, teaching or documenting into the patient record

Convenient & Portable

- Small footprint, easy mobility
- Stable cart that securely holds Flowmeter, Monitor & printer
- Convenient writing surface and storage drawer

Case Portfolios: Record, Display, Create

- Recordings and snapshots can be labeled for identification before and after the procedure
- Select 8-second snapshots from recorded measurements for review or documentation
- Generous memory space allows storage of many cases

Portfolio screen can display up to four snapshots at a time

Why rely on guesswork and intuition, and wait until postoperative conditions determine surgical success? Make intraoperative flow measurements with a Transonic Flowmeter part of your routine to verify establishement of adequate blood flow before closing your patient.

Transonic®: The Flow Pioneer

Transonic, the recognized leader in clinical and research blood Flowmeters, is rooted in university research. The company was founded in 1983 by its current President Cornelis Drost and fellow collaborators at Cornell University's College of Veterinary Medicine to commercialize the transit-time ultrasound flowmetry devices pioneered by the group.

From its initial animal research market niche, Transonic evolved into the market leader for innovative medical flow measurement instrumentation. Examples include:

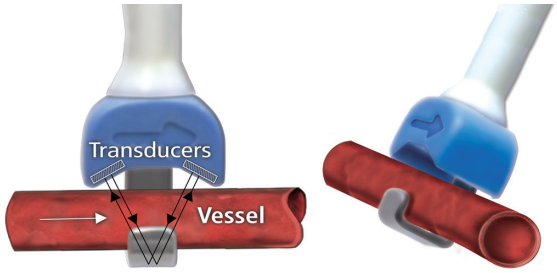
- Transonic's transit-time non-constrictive Perivascular Flowprobes, now the intraoperative quality assurance standard for beating-heart coronary bypass surgery.
- Its intraoperative bayonet-style Flowprobes help avert intraoperative stroke encountered during aneurysm clipping procedures, EC/IC bypass and other cerebrovascular procedures.
- Transonic's Clamp-on Tubing Sensors are an integral component of ventricular assist devices, organ preservation units, ECMO and cardiopulmonary bypass circuits.

"Accurate flow measurements can be of great assistance during vascular reconstructive surgery. The primary aim with these intra-operative measurements is to obtain information on the immediate result of the reconstruction, where a technical failure may jeopardize an otherwise successful operation." *A Lundell, MD, FACS*

"Not a day goes by that these flow measurements don't solve a problem for me." *B. Mindich, MD*

"...at the Medical Center here, we use the flowprobe as part of our routine monitoring the post-bypass patient. It gives us intraoperatively information about what's transpiring with each individual graft. It's not information that you could get any other way." *E. Grossi, MD*

TRANSIT-TIME ULTRASOUND TECHNOLOGY
MEASURES VOLUME FLOW, NOT VELOCITY



Two transducers pass ultrasonic signals through the vessel, alternately intersecting the vessel in upstream and downstream directions. The difference between the two transit times yields a measure of volume flow.

European Revascularization Guidelines

"Graft flow measurement, related to graft type, vessel size, degree of stenosis, quality of anastomosis, and outflow area, is useful at the end of surgery. Flow <20 mL/min and pulsatility index >5 predict technically inadequate grafts, mandating graft revision before leaving the operating theatre."[1]

1 The Task Force on Myocardial Revascularization of the European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS) "Guidelines on Myocardial Revascularization," Eur J CardiothoracSurg 2010; 38, S1 S52

"Transonic Flow-QC® provides a measurable improvement in the quality of care you can extend to your patients. You can: improve patient outcomes; reduce or delay the need for future interventions and document surgical results." *T. Wolvos, MD, FACS*

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Transonic Systems Inc. is a global manufacturer of innovative biomedical measurement equipment. Founded in 1983, Transonic sells "gold standard" transit-time ultrasound flowmeters and monitors for surgical, hemodialysis, pediatric critical care, perfusion, interventional radiology and research applications. In addition, Transonic provides pressure and pressure volume systems, laser Doppler flowmeters and telemetry systems.

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