KNOW THE FLOW™

Continuous, real-time measurements of tissue perfusion in absolute units

Bedside monitoring of perfusion, temperature, and thermal conductivity

Minimally invasive, 19-gauge (O.D.), flexible, 10-day single-use probe
BOWMAN PERFUSION MONITOR®

CAPABILITIES
- Detects changes in blood flow in real-time
- Offers valuable diagnostic and prognostic info
- Helps formulate and target therapy
- Detects vasospasm in comatose patients
- Detects cardiac induced brain vessel pulsatility
- Helps guide pharmacologic interventions
- Identifies patients at risk for impending ischemic events via absolute perfusion measurements
- Assists in detecting impaired autoregulation and changes in vascular resistance
- Increases understanding of pathophysiology
- Requires no user calibration
- Prints tabular data and waveforms
- Streams measurements via RS-232 that can be collected by multimodal monitoring data systems

ABSOLUTE CERTAINTY
While laser doppler measurements assess relative flow, the Bowman Perfusion Monitor quantifies tissue perfusion in absolute units. If there is no tissue blood flow, the Bowman Perfusion Monitor displays a perfusion value of 0.

ABSOLUTE SIMPLICITY
The Bowman Perfusion Monitor relies on a minimally invasive thermal diffusion probe that measures tissue blood flow in the spherical volume surrounding the distal tip. The 19-gauge diameter (~1 mm O.D.) flexible probe can be inserted into any soft tissue at the site where quantitative knowledge of perfusion is desired.

SPECIFICATIONS

Perfusion Measurement
Range: 0–200 ml/100g–min
Resolution: < 0.2 ml/100g–min
Accuracy: 10% of full scale (200ml/100g–min)
Volume of Measurement region: ~ 0.3 ml

Temperature Measurement
Range: 25–46°C
Accuracy: ~ 0.3°C
Resolution: 0.005°C

Hardware Specifications
Power Requirements: US standard 100–120 VAC/60 Hz or 220–240 VAC/50 Hz

Analog Output
Voltage Output: 0 to 2 VDC
Output Scale: Fixed scale 100 ml/100g–min perfusion per volt (0 to 200 ml/100g–min)

Digital Output
Update Period: 1 second
Serial Port: supports data uploading and streaming via RS-232 communication

Electrical Safety
Breakdown Voltage: Medical Grade Isolation:
Dielectric strength tested to 4000 VAC
Leakage Current: < 10 μA–Meets IEC-60601 specifications for CF equipment

Physical Specifications
Dimensions: 10.5 L x 10 W x 16.5 H in, 26.67 L x 25.4 W x 41.91 H cm
Weight: 13 lbs (5.9 kg)
Shelf or pole mount