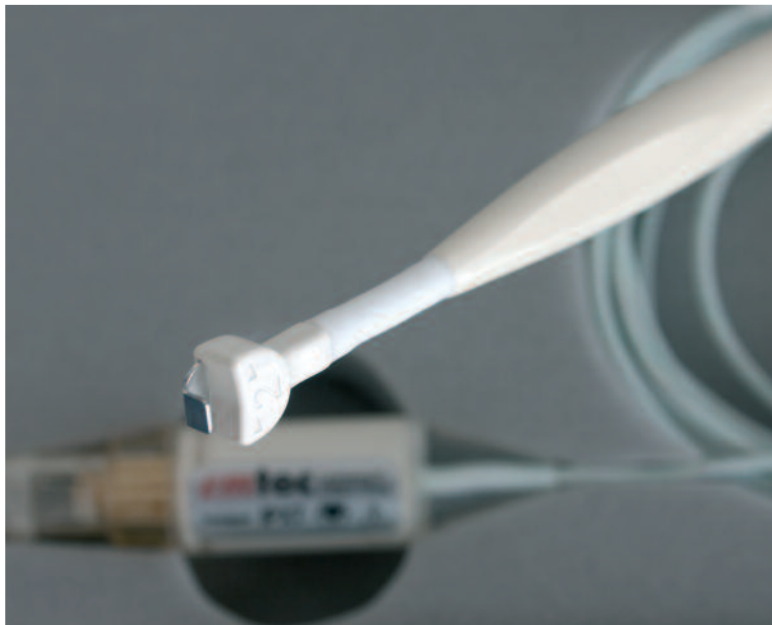


Solutions in  
Medical  
Engineering



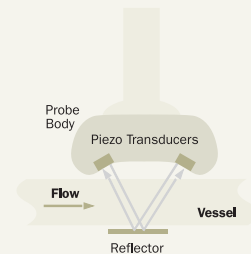
Vascular Flow  
Probes

**em-tec**  
MEDICAL TECHNOLOGY

## Transit– Time Principle

Transit-time flowmeters measure the difference in travel-time between pulses transmitted in a single path along and against the flow.

An ultrasound transducer transmits ultrasonic pulses through a vessel to a metal reflector. The reflected pulses passing the vessel again and are received by a second transducer. Each transducer alternately transmits and receives bursts of ultrasonic energy. The difference in the transit-times in the upstream vs. the downstream direction measured over the same path can be used to calculate the flow through the tube.



## SonoTT Vascular Probes

High quality workmanship Ultrasonic Flow Probes for the measurement of blood flow in vessels and grafts. The probes are showing excellent accuracy and stability. Calibration data are stored in the probe.

The probes can be manually and automatically cleaned and disinfected and sterilized with **steam**, ethylene oxide (EtO), low temperature steam and formaldehyde sterilisation (LTSF) and low temperature plasma (LTP). **We support 50 sterilisation cycles.**

|                           |                                     |
|---------------------------|-------------------------------------|
| Housing material          | Medical Grade Plastic               |
| IP-Code                   | IPX7 (water-tight)                  |
| Safety Class              | Type CF applied part, defi-proof    |
| Cable length              | 2.8 m                               |
| Connector plug            | 14-pin High Density Round Connector |
| Accuracy                  | ±15 % of the value + Offset Drift   |
| Maximum measurement range | depending on Probe Size             |

Range of Probes:

| Type with handle | Type without handle | Head size | Size of vessel/graft |
|------------------|---------------------|-----------|----------------------|
| VP100-02-10-A    | VP100-02-20-A       | 2 mm      | 1.5 to 2.5 mm        |
| VP100-03-10-A    | VP100-03-20-A       | 3 mm      | 2.5 to 3.5 mm        |
| VP100-04-10-A    | VP100-04-20-A       | 4 mm      | 3.5 to 4.5 mm        |
| VP100-05-10-A    | VP100-05-20-A       | 5 mm      | 4.5 to 5.5 mm        |
| VP100-06-10-A    | VP100-06-20-A       | 6 mm      | 5,3 to 7,0 mm        |
| VP100-08-10-A    | VP100-08-20-A       | 8 mm      | 6,8 to 10,0 mm       |
| VP100-12-10-A    | VP100-12-20-A       | 12 mm     | 10,0 to 14,4 mm      |
| VP100-16-10-A    | VP100-16-20-A       | 16 mm     | 14,2 to 18,4 mm      |
| VP100-20-10-A    | VP100-20-20-A       | 20 mm     | 18,2 to 22,5 mm      |



## SonoTT FlowLab™

The em-tec SonoTT FlowLab™ designed for non-invasive flow measurement in blood vessels, enables you to carry out intra-operative quality control and documentation of surgical procedures in cardiovascular, vascular and transplant surgery.

- 15" touchscreen monitor
- PI (Pulsatile Index) and DF Index (Diastolic Filling)
- Up to two flow channels, two pressure and one AUX channel
- Optional mode for PW Doppler-Probe
- Storage for patient data files
- Print-out of patient report or data export via USB port (PDF file)
- Alarm system for extracorporeal applications
- Mast fixation or stand-alone device, trolley available



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