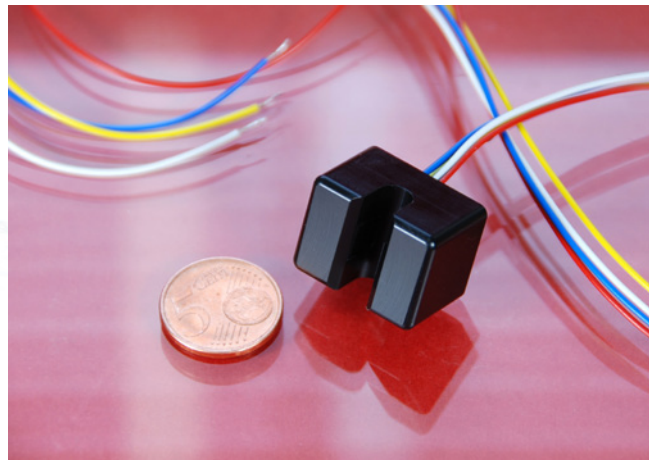
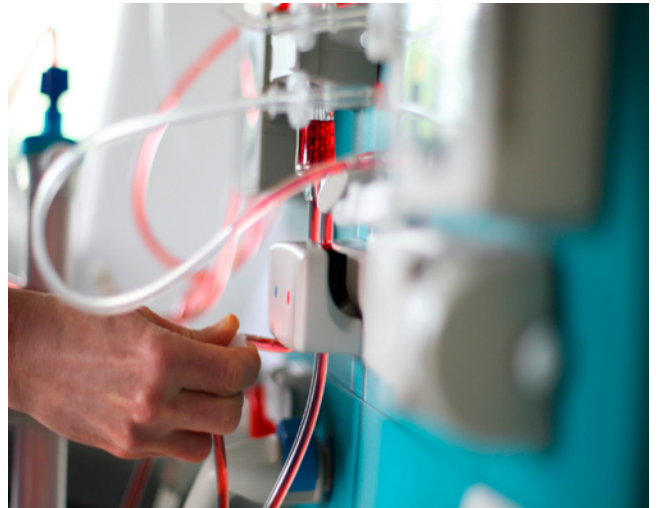


# NON-INVASIVE AIR BUBBLE DETECTION

*using ultrasound - from the outside  
through the tube*



**SONOCHECK**  
for medical technology

**SONOTEC** 

*High patient safety  
Easy device integration  
Customized solutions*

# SONOCHECK

## ABD05 and ABD07

for reliable air bubble detection

The SONOCHECK air bubble detectors detect air and gas bubbles in liquid filled tubes and measuring cells. The intelligent sensors can be applied for liquid monitoring as well as for wet/dry indication.

The ABD05 and its miniature edition - the ABD07 - have been developed for the use in medical technology. The compact construction constitutes the prerequisite for applications in fields with strict hygienic standards. The tube is easily put into the sensor and enables a smooth and uncomplicated change. The sensor adapts to dynamically changing acoustic conditions. Hence, a high reading stability against varying environmental conditions can be ensured.

The SONOCHECK sensors have a customized programmable microcontroller with extendable functionalities, such as fail-safe, serial communication or response time. The optimized safety concept leads to maximum reliability and patient safety. The air bubble detectors can be adapted to individual tube sizes as well as other specifications, such as different voltages, switching outputs or materials.

### Product Characteristics

- Non-invasive detection
- No coupling medium required
- No influence of the medium colour
- Customized design
- Test for bubble simulation
- Adjustable threshold for bubble detection

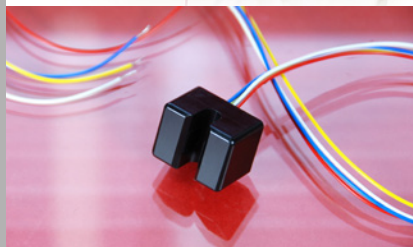
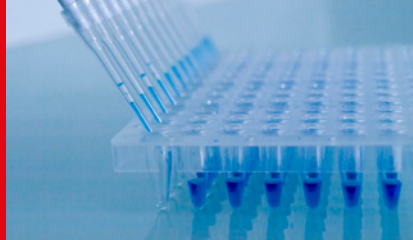
### Industries

- Medical technology
- Laboratory devices
- Pharmaceutical industry

SONOTEC preserves the right to change technical specifications without further notice. (Rev. 2 / 2013-11-12)

# SONOTEC

Certified to DIN EN ISO 9001 and EN ISO 13485



### Applications

- Dialysis and transfusion
- Heart lung machines
- Blood separators
- Infusion and heart pumps
- Alimentary pumps
- Contrast medium pumps
- Diagnostic systems

### Technical Data SONOCHECK Type ABD05 and ABD07

Specification	ABD05	ABD07
Measuring principle	Ultrasound	
Measuring cycle	200 µs	
Response time	Typical 1 ms	Min. 1 ms, Typical 2 ms
Outer tube-Ø	1.6 to 20 mm	3.2 to 9.6 mm
Housing material	Plastics	
Power	≤ 60 mA	≤ 20 mA
Power supply voltage	+5 ± 0.2 VDC	
Output	5 V-Logic	
Working temperature	+5 °C to +60 °C	
Storage temperature	-20 °C to +70 °C	-20 °C to +85 °C
Accessories	ABD Monitor for parameterization and diagnostics	
Miscellaneous	Optical signal indication (LED)	With LED on request
Directives/standards	EMC: EN 60601-1-2, Safety requirements under consideration of: IEC 60601-1	

#### SONOTEC

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