SONAPHONE

The New Device Class for Preventive Maintenance

Advantages at a glance:

- New applications through new processes
- User-friendly interface speeds up your inspection process
- Record ultrasonic frequencies from 20 to 100 kHz
- Store test data and spectrograms
- Add photographs, voice memos and comments to the measuring point
- Create test reports with a few clicks
- Minimize downtimes and increase operational safety
- Improve energy efficiency

Get A Quote
ULTRASONIC TESTING DEVICE FOR MAINTENANCE 4.0

In the age of Industry 4.0 the optimizing processes, increasing operational safety, and improving energy efficiency are becoming more and more significant. Meet the challenges of Maintenance 4.0 with the new SONAPHONE from SONOTEC. The digital ultrasonic testing device combines innovative sensors and software for preventive maintenance that can be operated intuitively and paves the way for new processes for new applications.

APPLICATIONS

With the new SONAPHONE you can

- detect and classify leaks in compressed air, gas and vacuum systems and reduce your energy costs,
- monitor the condition of your machines and determine the optimal maintenance time,
- identify leaks in windows, doors, vehicles, components and containers and ensure compliance with specified quality requirements,
- find electrical partial discharges and insulation damage and increase your operational safety,
- assess the function of steam traps and prevent energy and steam loss and damage to the steam system

BROADBAND ULTRASONIC ANALYSIS

- Frequency range from 20 to 100 kHz

SOFTWARE THAT IS INTUITIVE TO OPERATE

- The apps accompany you through the entire testing process, from planning, testing and documentation to analysis
- SONAPHONE can be operated intuitively like a tablet via 5-inch display with multi-touchscreen
- Reduce Paper records, which are error-prone and above all time-consuming

BUNDLING RELEVANT INFORMATION

- The apps bundle all information relevant to maintenance so you always have an overview of the condition of your machines and systems.
- Record spectrograms, time signals, sound files and levels
- Add photos, text comments and voice memos

TEST REPORTS WITH A FEW CLICKS

- Create a professional report as a PDF and save time
- Evaluate test data on the PC with SONAPHONE DataViewer
## Technical Data

### GENERAL DATA SONAPHONE

<table>
<thead>
<tr>
<th>Device design</th>
<th>Digital ultrasonic testing device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>5” TFT-Display with multi-touch controller</td>
</tr>
<tr>
<td>Acoustic output of signals</td>
<td>Via loudspeakers or wired headphones</td>
</tr>
<tr>
<td>Dimensions (W x H x D)</td>
<td>90 x 174 x 25 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>370 g</td>
</tr>
<tr>
<td>Temperature range</td>
<td>Storing temperature: -20 to +60 °C Operating temperature: -10 to +40 °C</td>
</tr>
<tr>
<td>Battery</td>
<td>Charging time 4 h typically Operating time in practical use 8-12 h Operating time in continuous operation 4 h</td>
</tr>
<tr>
<td>Connectors and interfaces</td>
<td>1 x fast ultrasonic channel (Lemo) USB 2.0 (microB) stereo headphones (jack plug 3.5 mm) slot for microSD card</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP40</td>
</tr>
<tr>
<td>Memory</td>
<td>8 GB Flash system memory 16 GB Flash internal measurement data memory</td>
</tr>
<tr>
<td>Standards and directives</td>
<td>EMV RL 2014/30/EU WEEE RL 2012/19/EU RoHS RL 2011/65/EU ASTM E1002-2005</td>
</tr>
</tbody>
</table>

### GENERAL DATA SENSORS

<table>
<thead>
<tr>
<th>Device design</th>
<th>Airborne sound sensor</th>
<th>Structure-borne sound &amp; temperature sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor design</td>
<td>Sensor for detection of air ultrasound signals incl. target laser and LED light</td>
<td>Contact sensor for detection of structure-borne ultrasound, interchangeable waveguides, contactless infrared temperature sensor, LED-light</td>
</tr>
</tbody>
</table>
| **Operating** | Via keys on sensor or via SONAPHONE touchscreen  
**Keys:**  
start/stop measurements  
LED light  
laser  
volume | Via keys on sensor or via SONAPHONE touchscreen  
**Keys:**  
start/stop measurements  
LED light  
volume |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions (W x H x D)</strong></td>
<td>30 x 155 x 30 mm</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>80 g</td>
</tr>
</tbody>
</table>
| **Temperature range** | Storing temperature: -20 to +60 °C  
Operating temperature: -10 to +40 °C | Storing temperature: -20 to +60 °C  
Operating temperature: -10 to +40 °C |
| **Protection class** | IP40 | IP40 |
| **Frequency range** | 20 to 100 kHz | 20 to 100 kHz |
| **Temperature range** | -70 to +380 °C object temperature | -70 to +380 °C object temperature |
| **Resolution** | 1 dB | Ultrasound: 1 dB  
Temperature: 1 K |
| **Connector** | Cable connection to SONAPHONE  
Length coiled cable: 160 cm | Cable connection to SONAPHONE  
Length coiled cable: 160 cm |
| **Accessories** | Interchangeable attachments to increase the signal strength:  
**Small acoustical horn** for close range, **large acoustical horn** for long distances, **attachment for precise localization** of defective parts | **Short Waveguide:**  
Length: 22 mm  
Diameter: 18 mm  
Weight: 33 g  
**Long Waveguide:**  
Length: 150 mm  
Diameter: 18 mm  
Weight: 15 g |

**Software**

![dB]
**LEVELMETER**
App on SONAPHONE for basic maintenance tasks

**LEAKEXPERT**
App on the SONAPHONE for leak detection and quantification

**SONAPHONE DATAVIEWER**
Display of the LevelMeter recordings on the computer

**SONAPHONE DATASUITE**
COMING SOON
Routing | Trending | Alarm Levels | Reporting
Open Source Licenses: SONAPHONE uses open source licenses. The license texts can be found under the following link. We will provide you with the source code upon request. For more information please contact sonotec@sonotec.de.

Sensors

**BS10**

Broadband airborne sound sensor for leak detection and electrical inspection

Applications: Leak detection and classification on compressed air, gas and vacuum systems, Tightness testing of unpressurized systems, Detection of partial discharges up to 8 m

**BS20**

Broadband structure-borne sound und temperature sensor

Applications: Condition monitoring, Steam trap and valve inspection
BS30

Broadband parabolic sensor for leak detection and electrical inspection up to 35 m
Applications: Leak detection on compressed air, gas and vacuum systems, Tightness testing of unpressurized systems, Detection of partial discharges up to 35 m

360° view

Downloads
DO YOU HAVE ANY QUESTIONS?

Christian Schreiber
+49 (0)345 / 133 17-829
c.schreiber@sonotec.de

APPLICATIONS:

- Ultrasonic Leak Detection
- Ultrasonic Tightness Testing
- Steam Trap & Valve Inspection
- Bearing Monitoring & Lubrication
- Detection of Partial Discharges