

# Цифровое ультразвуковое испытательное устройство SONAPHONE III

## Технические характеристики

По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37  
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Саранск (8342)22-96-24  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97  
Тверь (4822)63-31-35

Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +(727)345-47-04

Беларусь +(375)257-127-884

Узбекистан +998(71)205-18-59

Киргизия +996(312)96-26-47

# SONAPHONE®

## Digital Ultrasonic Testing Device for Maintenance



### Airborne Sensors

**BS10**



- Range up to 8 m
- Interchangeable attachments
- Integrated laser pointer and LED light

**BS30**



- Range up to 35 m
- Integrated laser pointer and red dot sight
- Very good directivity and sensitivity

### Structure-Borne Sensors

**BS20**



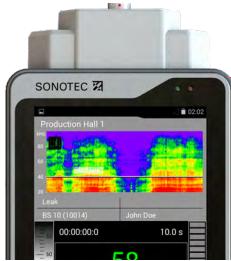
- Integrated infrared thermometer for -70 °C to +380 °C object temperature
- Exchangeable waveguides

**BS40**



- Magnetic base for smooth and curved surfaces
- Optional: coupling via UNF 1/4" - 28 screw connection

# Applications and Apps



## LevelMeter®

App for all structure-borne and airborne sound applications



## Condition Monitoring



→ Detect bearing damage early and optimize bearing lubrication

## Electrical Inspection



→ Detect partial discharge early and increase operational safety

## Leak Detection and Assessment



### LeakExpert®

- Special App for leak detection and assessment
- Patented method for leak classification and evaluation in l / min or CFM as well as in € or \$



## Special Apps

## Steam Trap Testing



### SteamExpert

- Special app for steam trap testing
- Optimized workflow for fast testing, including steam loss estimation in the web app



Reduction of energy costs for compressed air by up to 30 %



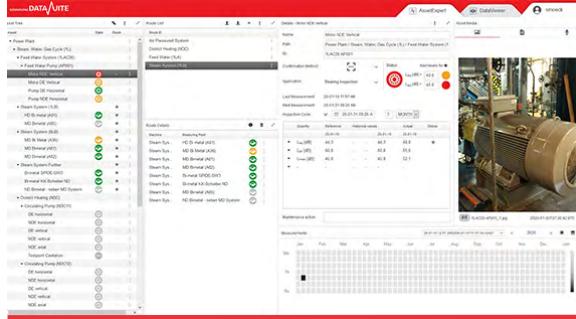
Reduce energy costs for generating steam by up to 20 % and increase process stability

# SONAPHONE DataSuite Software

## Route Planning, Trending and Analysis



- Central data hub for the organization, presentation and analysis of ultrasonic tests
- Modern web app technology – available as a desktop, server or cloud application
- Organization of ultrasonic measurement data in measurement points and system trees
- Measurement point information in a modern dashboard view
- Easy creation and management of inspection routes for condition-based planning of maintenance activities
- Integrated DataViewer: display and analysis of ultrasonic test data using various dB levels, audio files, thresholds, status displays and trend analyses
- Integrated reporting tool for creating PDF test reports based on test routes and system status



## AssetExpert

### App for Route Planning with SONAPHONE®

- Special app for data acquisition, on-site evaluation and synchronization to the SONAPHONE DataSuite
- Date acquisition based on routes
- An overview of historical data for each test point
- Identification of measurement points via QR code or ID

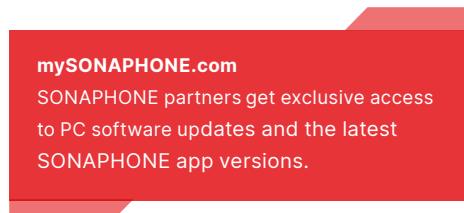


# Technical Data

General Data	
Device Design	Digital ultrasonic testing device with touchscreen
Frequency Range	1kHz to 128 kHz
Display	5 "-TFT-Display, Resolution WVGA 800Pixel × 480Pixel
Touchscreen	PCT, 5-Point Multi-Touch-Controller
Acoustic Output of Signals	Via loudspeakers or wired headphones
Storage	8GB Flash System Memory; 16GB Flash Internal Measurement Storage 2GB SDRAM
Connection and Interface	Ultrasonic sensors: Lemo; Charging power supply: USB 2.0 Micro-B Jack plug stereo headphones: 3.5mm; Memory for data export: slot for microSD card (up to 32GB)
Others	5MP camera on the back of the device; Integrated microphone; Integrated tilt sensor
Dimensions (B x H x T)	90 mm × 174 mm × 25 mm (90 mm × 174 mm × 30 mm with large battery)
Weight	370g (420g inkl. großem Akku)
Standard and Guidelines	EMV RL 2014/30/EU; WEEE RL 2012/19/EU; RoHS RL 2011/65/EU; ASTM E1002-2005

Power and Battery	
Battery	Type: Lithium polymer battery; 3,7V; 4,05Ah, 15Wh (large battery: 3,7V; 7,35Ah, 27,2Wh)
Power supply	Charging adapter with micro USB connection (5V, 2A)
Operating Time	In practical use: 8h... 12h, In continuous operation: 4h (or 8h with large battery)
Charging Time	~ 4h

Environmental conditions	
Operating temperature	-10°C ... +65°C (according to DIN EN 60068-2-2:2007)
Storage temperature	-20°C ... +65°C
Protection Class	IP40



Accessories	
Sensors	Airborne sensors: BS10, BS30; Structure-borne sensors: BS20, BS40
Apps for testing device	LeakExpert for leak detection; SteamExpert for steam trap testing; AssetExpert for route planning and measurement point organization
PC Software	SONAPHONE DataSuite

Inspection Software: LevelMeter App 2.0	
Details	<ul style="list-style-type: none"> <li>• Level Record (in dB, reference p0 = 20 µPa, temporal resolution: 16ms per level value)</li> <li>• Spectrogram (temporal resolution: 16 ms per frequency spectrum)</li> <li>• Level wheel and level bar (current level)</li> <li>• Level table, with configurable arrangement, number (max. 5) and type of level displayed</li> <li>• The following can be displayed: <ul style="list-style-type: none"> <li>• Sound pressure level and temperature</li> <li>• (T, only active with structure-borne sound sensor BS20)</li> <li>• L – instantaneous level</li> <li>• Leq – Equivalent continuous sound level</li> <li>• LF – time-weighted instantaneous level (smoothed)</li> <li>• Lpk – Peak level</li> <li>• Lmin – Minimum value of the instantaneous level</li> <li>• Lmax – Maximum value of the instantaneous level</li> <li>• CREST factor</li> </ul> </li> <li>• Switch between portrait and landscape format</li> <li>• Measurement time</li> <li>• Take photos to attach to data sets or measurements</li> <li>• Inserting markers immediately after the photo</li> <li>• Record voice memos for attaching to data sets and measurements</li> <li>• Storage of text comments</li> <li>• Select the current application (leak, bearing, etc.) for the context for measurements</li> <li>• Creation of PDF reports of selected records</li> <li>• Export of selected data records for further analysis on the computer (e.g. in the DataViewer)</li> </ul>
Functions	<ul style="list-style-type: none"> <li>Chinese, English, French, German, Italian, Japanese, Korean, Dutch, Polish, Portuguese, Russian, Spanish, Czech, Turkish, Hungarian</li> </ul>
Languages	<ul style="list-style-type: none"> <li>Chinese, English, French, German, Italian, Japanese, Korean, Dutch, Polish, Portuguese, Russian, Spanish, Czech, Turkish, Hungarian</li> </ul>



## По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37  
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Саранск (8342)22-96-24  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97  
Тверь (4822)63-31-35

Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +(727)345-47-04

Беларусь +(375)257-127-884

Узбекистан +998(71)205-18-59

Киргизия +996(312)96-26-47