



# SDT270

Time to enhance  
your maintenance  
programme



Ultrasound  
Solutions

[www.sdtultrasound.com](http://www.sdtultrasound.com)

# How We Help

SDT provides **ultrasound solutions** that give our customers greater understanding about the health of their assets.

We help them predict failures, control energy costs, and improve product quality while contributing to the overall uptime of their assets.

# Where We Help

Ultrasound inspection has more applications than any other condition monitoring technology.

The SDT 270 Ultrasound detector is the most versatile instrument in your predictive maintenance tool box. Whatever your business is, it will adapt to your specific requirements.

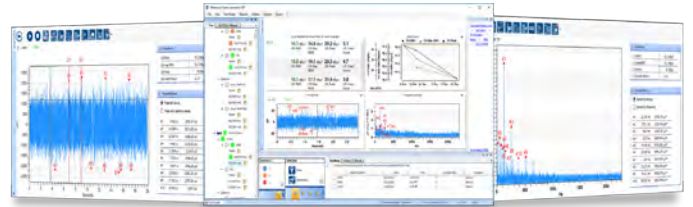
## SDT270

### The Ultrasound Solution

- Measure Ultrasound, Vibration, RPM and Temperature in one box
- 4 Condition Indicators for a more thorough diagnosis: (RMS, Max RMS, Peak, and Crest Factor)
- Two Channel Inputs for sensors and accessories
- Intrinsically safe version available for potentially explosive environments
- Record clear, accurate, scaled, comparable Dynamic data in a wave format
- Upgradeable firmware to flexibly grow with your program
- Remote support and training
- Device and sensors are calibrated to ensure consistent, repeatable performance



## Ultranalysis Suite<sup>©</sup>



Ultranalysis Suite is the most powerful ultrasound software ever written for PdM and Reliability Managers and has revolutionized the way we use ultrasound.

With UAS collect and manage your Ultrasound, Temperature, RPM, and Vibration data in one software program.

### Powerful, Analytical & Versatile

SDT gives you the tools to structure your surveys, perform data trending and advanced signal analysis. Ultranalysis Suite lets you establish baseline readings and set alarms that tell you when your equipment is transitioning from good to bad.



- With custom alarm levels you can see asset conditions at a glance
- Static data trending allows you to track an asset's condition over time
- Analysis of dynamic data spots fault conditions in critical rotating assets.

## Sensors and accessories

Threaded contact sensor



Needle contact sensor



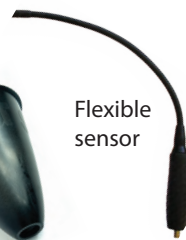
Parabolic sensor



Extended distance sensor



Flexible sensor



T-Sonic1 Transmitter



T-Sonic9 Transmitter



### Contact Sensors

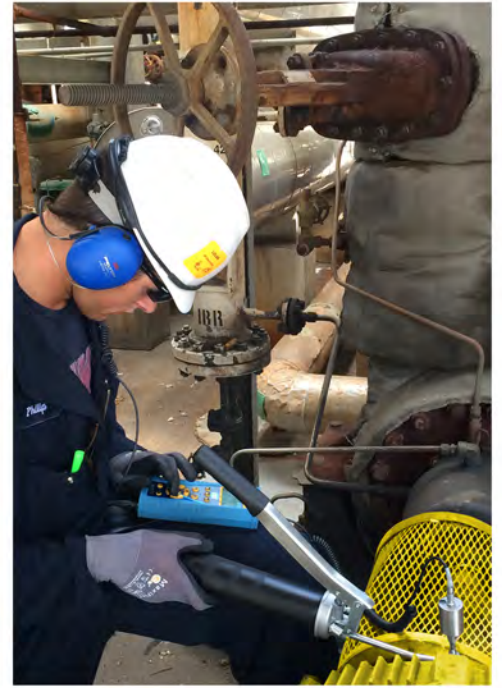
### Non-Contact Sensors

### Ultrasonic Transmitters



## Air and Vacuum Leaks

Compressed air is expensive to produce yet 35-40% of demand is wasted by leaks. With the SDT270 you can find all your leaks quickly and safely so you can save money while lowering your carbon footprint.



## Bearing Monitoring

Your production depends on healthy rotating assets. You can monitor the condition of your plant's machinery with the SDT270. Trend and analyze ultrasound, vibration, temperature, and RPM. The SDT270 and UAS alert you when things transition from good to bad.



## Acoustic Lubrication

Incorrect lubrication of bearings shortens their lifespan. Knowing when to grease, and how much to grease, are the keys to optimizing bearing lubrication. Predict re-lubrication intervals and add just the right amount of grease with SDT's integrated ultrasound greasing solutions.



## Valve Monitoring

Efficient processes depend on having valves that perform their function properly. Regular ultrasonic inspection quickly identifies which valves are leaking and which ones are closed.



## Electrical Faults

Partial discharge is a constant threat to your safety, and the health of your electrical systems. The SDT270 reveals electrical fault conditions in metal clad switchgear, substations, overhead transmission and distribution lines. Use SDT and listen before you look.



## Steam Systems

Working steam traps keep your steam system pure, safe, and energy efficient. The SDT270 delivers ultrasound and temperature data so you can identify all your failed traps and keep your steam system productive and healthy.



## Tightness testing

Ultrasonic tightness testing is done by placing an ultrasonic transmitter inside the volume to be checked and then sweeping the contour of the seals with the SDT detector. Leaks are identified and located by an increase in ultrasound levels at the leak site.



# Ultrasound Training

## Why Invest in Training?

Companies that invest in training enjoy a higher level of interest and participation across more departments while implementing inspections for more applications. Not only do the programs endure, but the return on investment is almost immediate.

## Certification training

**LEVEL 1** This "Air & structure borne ultrasound inspector" training, certified Level 1 by the ASNT is a combination of theoretical and practical learning. Two full days of mixing the principles of ultrasonic detection with the many applications that the inspector might encounter in the field. This training concludes with an exam, with the awarding of a certificate for all passes.



**LEVEL 2** The SDT Level 2 ASNT training looks at the use of advanced maintenance techniques. It is the next logical step for maintenance technicians who wish to get more out of their ultrasonic detection programme.



**ISO CAT 1** This 4 day course, in accordance with ISO 18436-3 and 18436-8, is an essential mix of theoretical knowledge and practical experience. It is an unique opportunity to work with and learn from some of the world's most experienced ultrasound trainers and inspectors.

# Support

Our focus is maintaining your ultrasound assets so you can focus on maintaining your company's assets.

SDT Technical Support Services are here to ensure that your SDT products and software operate to the standard you expect and that you benefit from the most current firmware and software available.



**LIFETIME  
WARRANTY**

**SDT Products are built to last a LIFETIME...  
... so is our WARRANTY**

# SDT270 Technical Specifications

|                       |   |                          |   |
|-----------------------|---|--------------------------|---|
| Built-In Measurements | Ultrasonic sensor, infrared temperature sensor (optional) and Tachometer (optional)   | Minimum sensitivity      | Class I instrument exceeding ASTM 1002-11 requirements for gas leak detection with the appropriate sensor                             |
| External Sensors      | 2 ports (Lemo 7pin connector)   | Headphones               | high quality industrial headset having a Noise Reduction Rating (NRR) of 25 dB  |
| Data Logger SS/SD     | at least 4000 Static measurements spread over 1000 locations  | Intrinsically Safe       | ATEX certification meets directive 94/9/EC (II 1 G Ex ia IIC T3/T2 Ga) comparable to Class I, Div 1, groups A, B, C & D               |
| Data Logger DD        | idem SS/DD plus 15,000 seconds of Dynamic data @8k sampling rate or 3,700 seconds for 32k   | Physical Characteristics | Housing: Extruded Aluminum<br>Weight: 830g /29.3oz (with battery & holster)<br>Dimensions: 226 x 90 x 40mm (8.9 x 3.54 x 1.57 inches) |
| Data Logger SU/DU     | at least 10,000 Static measurements and 15,000 seconds of Dynamic measurements @8k sampling rate or 3,700 seconds @32k spread over 10,000 locations | Protective Casing        | Shock Resistant Silicone  |
| Communication         | USB Interface   | Battery Pack             | Rechargeable 8 cell 4.8v, 4600mAh NIMH  |
| Auto Power Down       | After preset time - adjustable by user  | Safeguards (Battery)     | Short-circuit, reverse polarity & temperature protection  |
| Response Time         | <9 milliseconds   |                          |   |

## SDT Mission Statement

SDT provides ultrasound solutions that help our customers gain a better understanding about the health of their factory. We help them predict failures, control energy costs, and improve product quality while contributing to the overall reliability of their assets.

Your SDT Certified Partner



**SDT International s.a./n.v.**  
Bd de l'Humanité,415 - B-1190 Brussels - Belgium  
Tél: +32(0)2-332 32 25  
Email: info@sdtultrasound.com  
www.sdtultrasound.com

**SDT North America**  
PO Box 682, Cobourg, ON - K9A 4R5 Canada  
Toll Free NA: 1-800-667-5325  
Intl Phone: 1-905-377-1313  
Email: hearmore@sdtultrasound.com