HEAR SDT MORE Ultrasound Solutions

CRYSOUND

Acoustic Imaging Camera

See and Hear More Leaks and Partial Discharges.

ATEX

HEAR SDT MORE **Ultrasound Solutions**

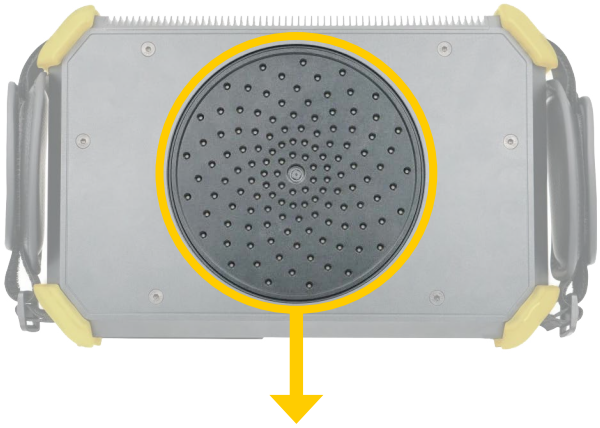
SDT Ultrasound Solutions is pleased to present its cutting-edge compressed air leak and partial discharge detection device for energy management and condition monitoring.

CRYSOUND

is a portable industrial acoustic imager that supports the ultrasound frequency band.

The instrument uses microphone array beamforming technology (128 MEMS) to acquire sound source distribution data, and collects video images in real-time thanks to the high-definition camera.

The CRYSOUND industrial acoustic imager helps you to quickly detect pressurized gas and vacuum leaks in noisy industrial installations. Used in power systems, it lets you rapidly identify partial discharge locations.



Ultrasound Sensor Array
128 Digital MEMS

CRY2620 Base Kit
Basic version
64 MEMS

CRY2623 Base Kit
Superior version
128 MEMS

CRY2624
Superior ATEX version
128 MEMS

CRY2620 Pro Kit
Basic version
64 MEMS
+ LEAKChecker

CRY2623 Pro Kit
Superior version
128 MEMS
+ LEAKChecker

Rugged
Made of strong and durable an aluminum alloy shell.

High Test Accuracy
Leak detection rate is 1m, 7 bar,
0.37 ml/s, 10 m, 7 bar, 0.7 ml/s.

IP54

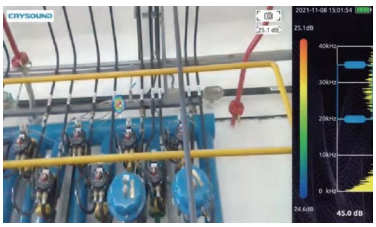
Multi-type Gases
Detects all types of pressurized gases leaks.

Distance measurement
It automatically calculates the distance during leak detection between 0.3 m to 120 m.

Easy to Operate
Adjust only two parameters to start detecting:
the test frequency range and test dynamic range.

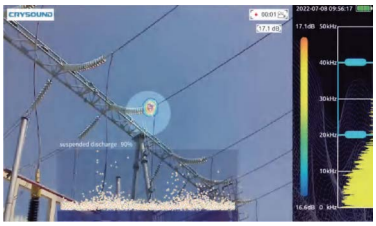
Explosion-proof certification
ATEX-II 3 G Ex ic IIC T5 Gc
(CRY2624 only)

Fully Functional
Complete the recording of test results with photos, audio and video.
These can be tagged within the imager itself.



High efficiency
With a high frame rate of 25 FPS and a wide 62° field of view, it's the ideal assistant for efficient inspections.

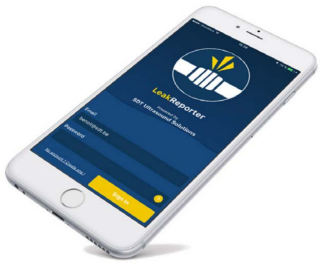
High intelligence
It quickly detects gas leaks from a distance and estimates leak volume in real time, reducing inspection time and energy wastage.



High resistance to interference
Integrated focus function and advanced anti-interference algorithms to eliminate peripheral interference.
In noisy environments, it concentrates audiovisual data within a circle, enhancing detection accuracy.

High vigilance
The CRYSOUND Acoustic Imager has a PRPD (Phase Resolved Partial Discharge) mapping function for diagnosing discharge faults, even before thermal cameras detect them. It offers real-time partial discharge type identification during inspections directly on the camera screen.

LEAKReporter



SDT Ultrasound Solutions also provides a free management system for creating reports by simply inserting photos taken by the CRYSOUND imager into the LEAKReporter CMS. LEAKReporter is a program that allows you to efficiently survey and thoroughly inspect your factory for leaks in five fast and easy steps:

- Create a survey to identify potential leaks.
- Document your findings with detailed pictures for visual clarity.
- Input ultrasonic readings for accurate analysis.
- Utilize measurements to estimate the cost impact of leaks.
- Synchronize your completed survey seamlessly with the web browser.

A desktop reporting software is also availiable.

Acoustic Specification	
Microphone array	• CRY2620: 64 channels MEMS micro-phone • CRY2623/CRY2624: 128 channels MEMS microphone
Effective test bandwidth	• CRY2620: 2 kHz-40 kHz • CRY2623/CRY2624: 2 kHz-48 kHz
Dynamic range	Up to 110 dB
Test sound pressure level range	• CRY2620: 28-120 dBA • CRY2623/CRY2624: 25.7-132.5 dBA
Auto max/min dB gain	User-settable, minimum test bandwidth 1 kHz
Number of digits	24 bit
Sound image FOV	62°
Sound image frame rate	At least 25 FPS
Leak detection rate	• CRY2620: 10 m 5 bar 2.4 ml/s 0.5 m 5 bar 1.2 ml/s • CRY2623/CRY2624: 1 m 7 bar 0.37 ml/s 10 m 7 bar 0.7 ml/s
Detect distances	• CRY2620: 0.5 m-70 m • CRY2623/CRY2624: 0.3 m-120 m
Display	
Resolution	1024*600 (614,400 pixels)
Size	17,78 cm
Touch screen	Capacitive touch screen
Brightness	Adjustable
Photo notes	Up to 5 photos notes for reference
Source	Show single or multiple sources
Standard palettes	3: Grayscale, Ironbow, Blue-Red
Playback function	View photos, videos anytime, and add notes or tags
Storage	
Internal storage	About 8 G
External storage	TF memory card, at least 64 G, expandable to 256 G
Data storage format	.jpg (image), .mp4 (video) and .wav (audio)
Video length	5 minutes
Digital export	TF Card

Software	
Report types	Gas/Electricity, ISO 50001-compliant
Analysis	Waveform, spectrum, spectrogram, leakage assessment, discharge type discrimination
Power	
Battery capacity	1×6600 mAH@7.2 V Rechargeable battery and 1× external battery, continuous operation
Battery life	Operating time 4+6 hours
Charger	USB Type-C port, USB PD protocol support-ed, 15 W
Power consumption	15 W for battery charging; 29 W for maximum consumption
Energy management	Sleep/Auto power off modes
Interface	
USB 3.0 Type-C USB host port	
USB 3.0 Type-C host port 3.5 mm headphone jack	
Operating Environment	
Operating environment	-20 °C – +50 °C, 10% – 95% no condensation
Storage temperature	-20 °C – +60 °C
Charging temperature	10 °C – +45 °C
General Specification	
Ingress Protection (IP)	IP54
Size	272 mm × 174 mm × 42 mm
Weight	1.7 kg
Warranty	2 years
Self-diagnostic notifi-cation	Array health test function to determine whether the microphone array needs atten-tion
System	Linux system
Certification	CE, FCC, RoHS-compliant, MSDS, CNEX, ATEX-II 3 G Ex ic IIC T5 Gc (CRY2624 only)
Supported Languages	
English, French, Chinese, German, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish.	

Available only in Europe and French-speaking African countries.

SDT Mission:

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.

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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