TECHNICAL DATA

Fluke ii910 and ii900 Acoustic Imagers

SOUNDSIGHT™ TECHNOLOGY

Acoustic Imaging
Blended live SoundMap™ with visual image

Frequency Range
ii900: From 2 kHz to 52 kHz
ii910: From 2 kHz to 100 kHz

Detection range
ii900: Up to 70 metres*
ii910: Up to 120 metres*

Display
7 inch 1280 x 800 LCD with capacitive touchscreen

SoundSight™ refers to the Fluke technology of converting sound waves to a visual image.

*Depending on ambient conditions

Leaks in compressed air, gas, steam and vacuum systems hurt both production uptime and the operations bottom line.

While most manufacturers know that these types of leaks exist, it has been too time consuming and tedious to address them until now. With the Fluke ii900 or ii910 and minimal training, your maintenance technicians can begin checking for leaks during their typical maintenance routine—even during peak operation hours.

The ii900 series acoustic imagers let technicians see sound as they scan hoses, fittings, and connections for leaks. Its built-in acoustic array of tiny sensitive microphones generates a spectrum of decibel levels per frequency. Based on this output, an algorithm calculates a sound image, known as SoundMap™ that is superimposed on a visual image. The SoundMap is automatically adapted depending on the frequency level selected so that background noise is filtered out, making it incredibly simple to detect compressed gas leaks.

Finally a better way to detect compressed air, gas, steam and vacuum leaks. Plus, the ii910 provides increased sensitivity to detect leaks that are smaller or farther away.

The invisible threat…now you can see

Partial Discharge is a very serious issue that you would like to be able to monitor quickly and easily. Whether you are inspecting insulators, transformers, switch gears or high voltage powerlines you need to be sure that you spot a problem quickly and early. Partial discharge that goes unchecked can cause blackouts, fires, explosions, or death from arc flashes. In addition to the danger that partial discharge poses to human lives and the environment, there is a significant monetary risk of downtime. Having equipment go down can cost millions of dollars per hour of downtime.

The Fluke ii910 Precision Acoustic Imager is the perfect tool for high voltage electricians, electrical test engineers, and grid maintenance teams that are constantly inspecting and maintaining power distribution and industrial high voltage equipment. The ii910 provides a safe quick and easy way to detect and locate partial discharge in order to maintain high voltage equipment and prevent catastrophic events. With the SoundSight™ technology the ii910 translates the sounds that it hears into a visual representation so that you can quickly locate problem areas. The higher frequency capability of the ii910 allows for earlier detection to facilitate early maintenance planning and is why the ii910 has a frequency range of 2–100Khz.

FLUKE®

Specifications

Key features	ii910	ii900	Definitions
Sensors			
Frequency band	2 kHz to 100 kHz	2 kHz to 52 kHz	
Detection range	0.5 m to 120 m*	0.5 to > 70 m*	
Field of view	63°± 5°		
Nominal frame rate	25 FPS		The number of Frames Per Second (FPS) indicates the number of times the image on the screen is refreshed each second
Built-in digital camera (visible light)			
Field of view (FOV)	63°± 5°		
Focus	Fixed lens		
Display			
Size	7" LCD with backlight, sunlight readable		
Resolution	1280 x 800 (1,024,000 pixels)		
Touchscreen	Capacitive		Extremely precise and quick responding
Acoustic image	Yes, SoundMap™ image		A SoundMap™ is a visual map of noise sources using an acoustical array
Image storage			
Storage capacity	Internal memory with the capacity for 999 picture files and 20 video files		
Image format	Blended visual and SoundMap™.JPG or .PNG		
Video format	Blended visual and SoundMap™.MP4		
Video length	Up to 5 minutes		
Digital export	USB-C for data transfer		
Acoustic measurements			
Measurement range	12.1 dB SPL to 114.6 dB SPL ±1 dB SPL 2 kHz 4.4 dB SPL to 101.2 dB SPL ±2 dB SPL 19 kHz 12.8 dB SPL to 119.2 dB SPL ±1 dB SPL 35 kHz 19.8 dB SPL to 116.1 dB SPL ±3 dB SPL 52 kHz 41.4 dB SPL to 129.0 dB SPL ±1 dB SPL 80 kHz 54.4 dB SPL to 135.5 dB SPL ±1 dB SPL 100 kHz	15.4 dB SPL to 115.2 dB SPL ±1 dB SPL 2 kHz 5.6 dB SPL to 102.5 dB SPL ±2 dB SPL 19 kHz 28.4 dB SPL to 131.1 dB SPL ±1 dB SPL 35 kHz 41.8 dB SPL to 133.1 dB SPL ±3 dB SPL 52 kHz	Sound pressure level (dB SPL) or acoustic pressure is the local pressure deviation from the ambient–decible and sound pressure level
Auto max/min dB gain	Auto or manual, user selectable		
Frequency band selection	User selectable through user-made presets or manual entry		
Software			
Ease of use	Intuitive user interface		
Trend graphs	Frequency and dB scale		
Spot markers	dB level reading at center point of the image		
Battery			
Batteries (field-replaceable, rechargeable)	2 x Rechargeable Li-ion, Fluke BP291		
Battery life	6 hours/battery (product includes spare battery)		
Battery charging time	3 hours		
Battery charging system	External dual-bay charger, EDBC 290		

General specifications		
Standard palettes	3: Grayscale, Ironbow and Blue–Red	
Operating temperature		
ii900	–10 °C to 45 °C	
ii910	–10 °C to 40 °C	
Storage temperature	–20 °C to 70 °C without batteries installed	
Relative humidity	10 % to 95 % non–condensing	
Size (H x W x L)	186 mm x 322 mm x 68 mm	
Weight (battery included)	1.7 kg	
Ingress Protection (IP)	IP40	Protection against particles 1 mm or greater and dripping water
Warranty	2 year	
Self–diagnostic notification	Array–health test to identify when microphone array needs attention	
Supported languages	Dutch, English, Finish, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese	
RoHS compliant	Yes	
Safety		
General Safety	IEC 61010–1	
Electromagnetic Compatibility (EMC) International	IEC 61326–1: Portable Electromagnetic Environment IEC 61326–2–2 CISPR 11: Group 1, Class A	
Korea (KCC)	Class A Equipment (Industrial Broadcasting and Communication)	
USA (FCC)	47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103	

*Depending on ambient conditions

Image taken of the ii910 Precision Acoustic Imager detecting partial discharge in a high voltage application.

Image taken with the ii900 Industrial Acoustic Imager of an air leak in an industrial environment.

Ordering information

FLK-ii910 Precision Acoustic Imager
FLK-ii900 Industrial Acoustic Imager

Included
Imager; AC power supply and battery pack charger (including universal AC adapters); two rugged lithium ion smart battery packs; USB cable; rugged, hard carrying case; two rubber array covers; adjustable hand strap and adjustable neck strap.

Visit your local Fluke website or contact your local Fluke representative for more information.

Fluke. *Keeping your world up and running.®*

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