

TECHNICAL DATA

# Fluke ii900 Industrial Acoustic Imager



## Key features

- **NEW:** Leak volume and cost indication on the go
- **NEW:** CO2 emission reporting
- Improve energy efficiency. Do more with the same air compressors and delay the capital expense of purchasing an additional compressor
- Lower utility and downtime costs
- Reduce time and costs to detect leaks
- Improve production process and pneumatic equipment reliability

## Product overview: Fluke ii900 Industrial Acoustic Imager

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How fast will you find your first leak?

Right out of the box, the Fluke ii900 is ready to use. It's rugged and ergonomic design make it easy to handle and the large 7" LCD display make leaks easy to see. Within minutes, a user with little-to-no experience can start detecting leaks. When the Fluke engineers were considering the users of the ii900, they wanted to make sure all the necessary components were built-in and easy to access. In addition, the Fluke engineers knew shutting down the plant or putting technicians in harm's way was out of the question—that's why they made sure the Fluke ii900 Industrial Acoustic Imager could be used in noisy

environments and from a safe distance.

You can actually see money leaking right out of your system

A 100 hp air compressor can consume around \$50k in electricity annually and as much as 30% of that electricity goes toward pressurizing airlines that leak. Many facilities have never assessed the efficiency of their compressed air operation and thus, when the system appears to be slowing down or not keeping up with demand, the facilities simply add more capacity. An expensive purchase considering compressed air systems should have relatively little change in capacity over time unless demand has increased, or the system is being sabotaged by leaks.



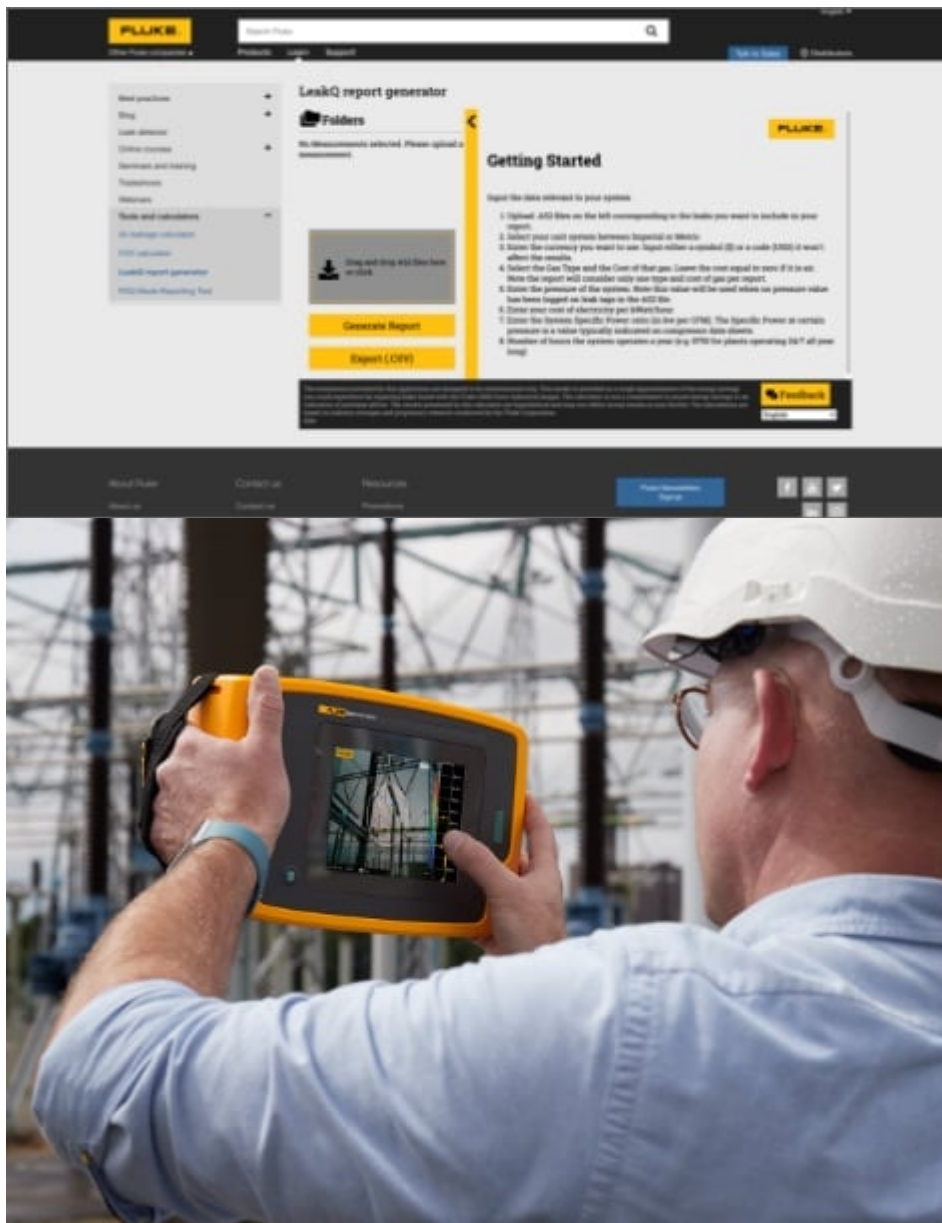
More than you expected, by far

- 7" LCD touchscreen that overlays a SoundMap™ on a visual image for quick leak location identification
- Straightforward, intuitive interface to isolate the sound frequency of the leak and filter out loud background noise
- Image and video tagging, annotation, and organization using folders
- Leak sizing to help determine priority for repairs
- Report tool to share visuals, tagging, notes, and more with others on your team or repair personnel

## Communication and reporting tools for everyone

The Fluke ii900 comes enabled with LeakQ mode, which automatically determines the distance to the target (a leak that shows inside the circle on the display). When a leak is detected and the imager can determine the distance, the LeakQ value on the display gives an indication of the size of the leak. The value is based on the measured dB SPL value and the distance.

The LeakQ reporting tool combines the inputs from your Fluke ii900 Industrial Acoustic Imager with inputs made directly to the tool to create organized and detailed reports. These reports can be used to convey where repairs need to be made, for follow-up post repair to confirm fixes, or for simply documenting the inspection process and results.



## How do you see sound?

The Fluke ii900 Industrial Acoustic Imager visualizes the sounds coming from small leaks in compressed air, gas, and vacuum systems. Equipped with an array of microphones for an expanded field-of-view, the handheld Fluke ii900 Industrial Acoustic Imager (Sonic Industrial Imager) enables maintenance teams to locate air, gas, and vacuum leaks quickly and accurately in compressed air systems—even in noisy environments. Specifically designed for noisy production facilities the new SoundSight™ technology is simple to learn and easy to implement.

## Specifications: Fluke ii900 Industrial Acoustic Imager

Sensors	
# of microphones	64 digital MEMS microphones
Frequency band	2 kHz to 52 kHz
Sound pressure sensitivity	Detects a 0.005 CFM leak at 100PSI from up to 32.8 feet (Detects a 2.5 cm <sup>3</sup> /sec leak at 7 bar from up to 10 meters)
Operation distance range	0.5 to > 70 meters (1.6 to > 164 feet)*
Field of View	63 ° ± 5 °
Nominal frame rate	25 FPS
<i>*Depending on ambient conditions</i>	
Built-in digital camera (visible light)	
Field of View (FOV)	63 ° ± 5 °
Focus	Fixed lens
Zoom	3 x Digital Zoom
Resolution	1.2 MP
Display	7" LCD with backlight, under-sunlight readable
Resolution	1280 x 800 (1,024,000 pixels)
Touchscreen	Capacitive
Acoustic Image	Yes, SoundMap™ image
Image storage	
Storage capacity	20GB (>5000 pictures / >999 videos)
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	
Sound pressure (typical)	15.4 dB to 115.2 dB SPL (±1 dB) at 2 kHz 5.6 dB to 102.5 dB SPL (±2 dB) at 19 kHz 28.4 dB to 131.1 dB SPL (±1 dB) at 35 kHz 41.8 dB to 133.1 dB SPL (±3 dB) at 52 kHz
Auto max/min dB gain	Auto or manual, user selectable
Frequency band selection	User selectable through user-made presets or manual entry

Acoustic Measurements	
Classification and quantification	LeakQ™ Leak size and cost estimation
Software	
Ease of use	Intuitive user interface
Trend graphs	Frequency and dB scale
Spot markers	dB level reading at center point of the image
Asset ID	QR code based asset ID identification
Asset Inspection Status:	'As left', 'As found' ; 'Undetermined'
Photo notes	Up to 4 photos notes for reference
Source	Show single or multiple sources
Profile	Preset capture profiles
Annotation:	Asset name; Asset ID; Asset type; Leak type; Gas type; Pressure;
Other	Operating conditions; Weather notes
Leak values	Leak costs; Leak volume; LeakQ™ scale
Battery	
Batteries (field-replaceable, rechargeable)	Rechargeable Li-ion
Battery life	6 hours (product includes spare battery)
Battery charging time	3 hours
Battery charging system	External charger
General Specifications	
Standard palettes	3: Grayscale, Ironbow, Blue-Red
Operating Temperature	-10 °C to 45 °C (14 °F to 113 °F)
Storage Temperature	-20 °C to 70 °C (-4 °F to 158 °F) Without batteries
Relative humidity	10 % to 95 % non-condensing
Size (H x W x L)	186 mm x 322 mm x 68 mm (7.3 inches x 12.7 inches x 2.7 inches)
Weight (battery included)	1.8 kg (3.95 pounds)
Ingress Protection (IP)	IP41
Warranty	2 year
Fluke Premium Care	Premium Care Standard**
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
** Subject to regional availability	
Safety	
General Safety	IEC 61010-1

# Safety

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 & Communication)
USA (FCC)	47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.

## Ordering information



### **FLK-ii900**

Fluke ii900 Sonic Industrial Imager

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Includes:

- 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
  - Adjustable hand strap and neck strap
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**Fluke.** *Keeping your world up and running.®*

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