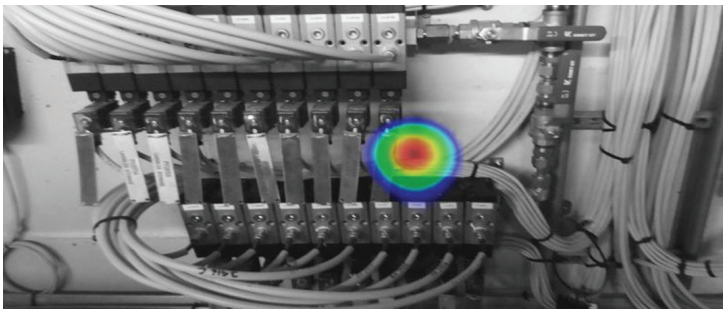
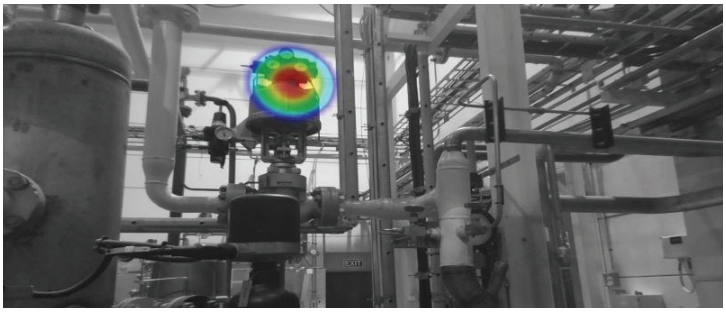
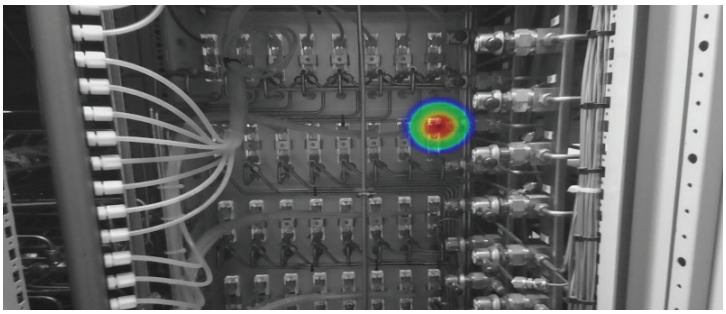
FLIR Si124-LD™

Industrial Acoustic Imaging Camera for Compressed Air Leak Detection







Get your compressed air leak detection program up and running in minutes. The FLIR Si124-LD is an easy-to-use, stand-alone system for locating pressurized leaks in compressed air systems. This lightweight, one-handed solution is designed to help maintenance, manufacturing, and engineering professionals identify air leaks up to 10 times faster than with traditional methods. Built with 124 microphones, the Si124-LD produces a precise acoustic image that visually displays ultrasonic information, even in loud, industrial environments. The acoustic image is overlaid in real time on a digital camera picture, allowing the user to accurately pinpoint the source of the sound. The Si124-LD features a plugin that enables users to import acoustic images to FLIR Thermal Studio suite for offline editing, analysis, and advanced report creation. Field analysis and reporting can also be done using the FLIR Acoustic Camera Viewer cloud service. Through a regular maintenance routine, the FLIR Si124-LD can help facilities save money on utility bills and delay the expense of installing new compressors.

FIND LEAKS FASTER

Detect compressed air leaks up to 10 times faster with ultrasonic imaging vs. traditional methods

- Quickly locate leaks and automatically upload, analyze, and classify problems to improve the reliability in production lines
- Locate leaks precisely, even in loud industrial environments, thanks to high-resolution acoustic images and 124 built-in microphones
- Instantly view the leak rate onscreen in real time (l/min or CFM)

REDUCE COSTS, SAVE MONEY

Minimize excess costs resulting from compressed-air leaks

- Delay the expense of installing new or additional compressors by maintaining existing ones
- Reduce rejected product that could be caused by pressure loss in pneumatic systems
- Quantify leak size to understand how much energy was lost and the amount of money saved by discovering the problem
- Optimize staff time, as minimal training is required to use Si124-LD

INSPECT EASILY

Quantify the severity of air leaks in real time with this smart, convenient tool

- Validate problems in real time
- Upload, store, and backup data; create reports; and conduct deep analysis using FLIR Acoustic Camera Viewer cloud software or FLIR Thermal Studio suite desktop software
- Operate the lightweight camera with one hand for safety and reduced strain
- Easily review images on the display in bright or dark conditions with this adaptable gain camera

SPECIFICATIONS

FLIR Si124-LD	
Acoustic measurement	124 low-noise MEMS microphones, real-time sound visualization
Dynamic range, low limit	<-15 dB (frequency-dependent)
Dynamic range, high limit	>120 dB (frequency-dependent)
Bandwidth	2 kHz to 65 kHz, adjustable range
Distance	From 0.3 m (1 ft) up to 130 m (430 ft)
Leak detection and quantification	Automatic leak recognition including estimated leak size and annual cost
Leak rate	In typical industrial environment: >0,032 l/min @ 3 bar from 3 m (9.8 ft) >0,05 l/min @ 3 bar from 10 m (32.8 ft) Absolute minimum detection in quiet environment: 0.016 l/min @ 1.2 bar from 0.3 m (1 ft)
User interface	
Display	Size: 5 in, 800 × 480 pixels Color: 24-bit RGB Brightness: 1000 cd/m² (adjustable)
Input device	Resistive touchscreen
Power On indicator	LED (red)
Video image resolution	800 × 480
Camera FOV	62° × 49°
Video frame rate	25 fps
Acoustic image frame rate	30 fps
Zoom	2x digital zoom
Analysis and reporting	
Online	FLIR Acoustic Camera Viewer (cloud service)
Offline	FLIR Thermal Studio (desktop software)

Communication and data storage	
Data transfer	• Wi-Fi 2.4 GHz and 5 GHz IEEE 802.11.b/g/n/ac wireless LAN • USB memory stick
Camera software update	• Automatic over Wi-Fi • USB via computer
Still images	Yes
Video recording	Yes, up to 5 minutes
Storage, internal	32 GB / 2000 snapshots (typical) SD card, non-removable
Storage, external	8 GB / 500 snapshots (typical) USB mass storage, provided with device
Power supply	
Camera power input	Nominal input voltage 12 V Max input: 15 V, 2.5 A
Replaceable battery	Li-ion rechargeable battery pack (RRC 2040): 10.8 V, 3.35 Ah, 36.2 Wh Usage: more than 2 h (depends on ambient conditions) Charge time: 4 to 6 h Max output: 12.6 V, 4 A
Battery charger	Input: 19 to 26 VDC, 2.8 A Max output: 17.4 VDC, 4.8 A
Internal battery (only for camera backup use)	Li-ion 6 Wh
Environmental data	
Operating temperature range	-10°C to 50°C (14°F to 122°F)
Storage temperature range	-20°C to 70°C (-4°F to 158°F)
Physical data	
Camera size	315 mm × 169 mm × 160 mm (12.4 in × 6.6 in × 6.3 in)
Camera weight	1.08 kg (2.38 lb)
Battery size	85 mm × 59 mm × 22 mm (3.34 in × 2.31 in × 0.86 in)
Battery weight	0.17 kg (0.37 lb)
Total weight (camera and battery)	1.25 kg (2.76 lb)

Included in the box