



FLIR Si124-LD Plus™

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 Plus 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 Plus 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 Plus 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 Plus can help facilities save money on utility bills and delay the expense of installing new compressors.



www.flir.com/Si124-LD-Plus

FIND SMALLER LEAKS FASTER

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

- Auto Filter selects the best frequency range automatically to detect even the smallest leaks
- 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 Plus

INSPECT EASILY

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

- Quantify leaks as low as 0.004 L/min with improved accuracy due to Auto Distance
- 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 Plus

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)
Automatic Inputs	Automatic Frequency Filter Selection (AFFS)
	Automatic distance up to 5 m (16.45 ft)
Leak detection and quantification	Automatic leak recognition including estimated leak size and annual cost
Leak rate	In typical industrial environment: 0.011 l/min @ 3 bar from 3 m (10 ft) 0.024 l/min @ 3 bar from 10 m (33 ft) Absolute minimum detection in quiet environment: 0.004 l/min @ 1.2 bar from <1 m (3 ft)

User interface

Display	Size: 5 in, 800 × 480 pixels Color: 24-bit RGB Brightness: 1000 cd/m ² (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	<ul style="list-style-type: none"> • Wi-Fi 2.4 GHz and 5 GHz IEEE 802.11.b/g/n/ac wireless LAN • USB memory stick
Camera software update	<ul style="list-style-type: none"> • Automatic over Wi-Fi • USB via computer
Still images	Yes
Video recording	Yes, up to 5 minutes
Storage, internal	32 GB / 1000 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 DC Max input: 15 V DC, 2.5 A
Replaceable battery	2 Li-ion rechargeable battery packs (RRC 2040): 10.8 V DC, 3.35 Ah, 36.2 Wh Usage: more than 2 h per battery (depends on ambient conditions) Charge time: ~2 h Max output: 12.6 V DC, 4 A
Battery charger	Input: 19 to 26 V DC, 2.8 A Max output: 17.4 V DC, 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



Specifications are subject to change without notice.
For the most up-to-date specs, go to www.flir.com/Si124-LD-Plus

For more information contact: Sales@TeledyneFLIR.com
or to find your local support number, visit: flir.com/contactsupport

This product is subject to United States export regulations and may require US authorization prior to export, reexport, or transfer to non-US persons or parties. Diversion contrary to US law is prohibited.

For assistance with confirming the Jurisdiction & Classification of Teledyne FLIR, LLC products, please contact exportquestions@flir.com.

©2022 Teledyne FLIR, LLC. All rights reserved.

Revised 04/05/23
Si124-LD-Plus_Datasheet-A4 21-0000