



## Industrial Acoustic Imaging Camera for Compressed Air Leak Detection



### **Key Features**

- Automatically detects compressed air and vacuum leaks from up to 130 meters (427 feet) away.
- Noise suppression technology ensures uninterrupted use in noisy industrial environments, improving accuracy and usability.
- Band-pass filter enables manual tuning of the frequency range for precise inspections.
- Lightweight design enables intuitive, single-handed operation, ideal for fast-paced inspections across large facilities.
- Touch-screen interface captures high-resolution images with realtime quantifiable leak-rate and cost prediction for prioritizing repairs.
- Seamless reporting options, including online analysis via FLIR Acoustic Viewer and offline reporting with FLIR Thermal Studio software.

#### Main Applications

- Leak detection in manufacturing and process industries
- Preventative maintenance and equipment optimization
- Energy efficiency and compliance

#### **SPECIFICATIONS**

Measurement & Analysis		
Acoustic measurement	96 low-noise MEMS microphones, real-time sound visualization	
Detection threshold	20 kHz: -5 dB 35 kHz: 9 dB 50 kHz: 15 dB 80 kHz: 41 dB 100 kHz: 56 dB	
Bandwidth	2 kHz to 100 kHz	
Directional resolution	From 1° up to 0.125°	
Operating distance	From 0.3 m (1.0 ft) up to 130 m (427 ft)	
Auto distance	Automatic distance up to 5 m (16.45 ft)	
Leak localization and detection	Automatic leak recognition including estimated leak size and annual cost	
Leak rate detection threshold	0.5 m: 0.004 l/min 2.5 m: 0.010 l/min 6.0 m: 0.017 l/min	
Autofilter, automatic frequency selection	No	
Band-pass filter	Yes	
Supported gases	Compressed air	
Mechanical mode	No	
Imaging & Optical		
Digital camera	12 MP color	
Camera field of view	65° diagonal	
Video frame rate	Camera: 60 fps / Acoustic image: 30 fps / Screen: 70 fps	
Zoom	8x Digital zoom	
Video image resolution	1280 × 720	

User Interface		
Display	Size: 5 in. 1280 × 720, Resistive touch screen, TFT LCD, MIPI DSI	
Integrated flashlight	LEDs, two modes: ON / OFF	
Analysis & Reporting		
Online	FLIR Acoustic Viewer (cloud service)	
Offline	FLIR Thermal Studio (desktop software)	
Communication & 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 image format	.nlz and .jpg	
Video recording & format	Up to 5 minutes (.nlz format)	
Storage, internal	32 GB (SD card)	
Storage, external	8 GB (USB), Cloud storage capacity is unlimited	
Image annotations	Image tags and comments	
Power		
Camera power input	Nominal input voltage: 12 V DC Max input: 17 V DC, 3.3 A (limited)	
Battery	Li-ion rechargeable battery pack (RRC 2054):14.4 V DC, 3.45 Ah, 49.68 Wh Usage: Up to 2.5 h Charge time: approx. 2 h Max output: 16.8 V DC, 5 A	
Battery charger	Input: 19 V to 26 V DC, 2.8 A Max output: 17.4 V DC, 4.8 A	

# SPECIFICATIONS, CONT.

Environmental Data		
Operating temperature range	-10°C to 50°C (14°F to 122°F)	
Storage temperature range	$-20^{\circ}$ C to $50^{\circ}$ C ( $-4^{\circ}$ F to $122^{\circ}$ F) max $-20^{\circ}$ C to $25^{\circ}$ C ( $-4^{\circ}$ F to $77^{\circ}$ F) recommended	
Relative humidity	0% to 90% recommended	
EMC	CFR47 FCC Part 15 Subpart B,	
Radio	CFR47 FCC Part 15 Subpart C/E, ETSI EN 301 489-1/-17, ETSI EN 300 328, ETSI EN 301 893	
Ingress protection	IP54	
Safety	IEC 62368-1	
Declaration of conformity		
Physical Data		
Camera size	184 mm x 276 mm x 167 mm (7 in x 11 in x 6 in)	
Camera weight	~ 1.2 kg	
Battery size	85 mm × 77 mm (RRC2504)	
Battery weight	~ 0.25 kg	
Total weight (camera + battery)	~ 1.45 kg	

Warranty & Service		
Warranty		
Shipping Information		
Packaging, type	Cardboard box	
Packaging, contents	- Camera - Battery (2 ea) - Battery charger - Power cable (4 ea) - Neck strap - Hard transport case - License card: FLIR Si-series Plugin for FLIR Thermal Studio, Perpetual license - Printed documentation - USB memory stick	
Packaging, weight	6 kg (13 lb)	
Packaging, size	490 mm × 365 mm × 190 mm (19.3 in × 14.4 in × 7.5 in)	
EAN-13	7332558035139	
UPC-12	845188032838	
P/N	Si1-LD: T912537 Si1-LD (No Wi-Fi): T912544	

Nederland

