

DATASHEET

Audinos Elite EX is a state-of-the-art diagnostic tool that uniquely combines an acoustic camera with a high-resolution thermal imager in a single ATEX-certified device. Equipped with 138 MEMS microphones and a 640×512 thermal sensor, it allows for the simultaneous detection of gas leaks, partial discharges, and thermal anomalies even in explosive environments.

1. PRODUCT OVERVIEW

The Audinos Elite EX is designed for high-stakes industrial maintenance. By integrating ultrasonic sound visualization with thermal imaging, it provides a dual-layer analysis of equipment health. Its powerful processor enables synchronized video recording of both acoustic and thermal data, streamlining the identification of mechanical wear, electrical faults, and energy losses.



2. KEY FEATURES

- **ATEX Certified:** Safe for use in hazardous zones (Gas: Ex ib IIC T4 Gb / Dust: Ex ib IIIC T80°C Db).
- **Dual-Sensor Integration:** Simultaneous acoustic and thermal imaging for comprehensive fault detection.
- **High Sensitivity:** 138 MEMS microphones detect even the smallest leaks or discharges from up to 200 meters.
- **Smart Analytics:** Real-time pressurized air leak value calculation and partial discharge type prediction (Corona, Floating, Surface, Noise).
- **Reporting Excellence:** Includes professional analysis software for detailed post-inspection reports.

3. TECHNICAL SPECIFICATIONS

Sound camera	
Microphones	138 Microphones
Dynamic Range of Camera	-30dB – 120dB
Minimum Imaging Sensitivity	10kHz : 1dB SPL 20kHz : -10dB SPL 30kHz : -6dB SPL 40kHz : 3dB SPL 50kHz : 6dB SPL 60kHz : 20dB SPL
Operating Distance	0.3m – 200m
Horizontal Spatial Resolution	150mm
Dynamic Range of multiple targets	0 – 18dB
Frequency Bandwidth	2kHz – 100kHz
FOV of Camera	75°
Photo Image Resolution	4K (3840*2160)
Digital Zoom	8x
Video Image Resolution	1920*1080
Storage	Internal 64GB
Video record length	5min
Display*	1280*720, 5-inch Touch Screen
Wi-Fi	2.4GHz / 5GHz
Charging port / Data port	USB TYPE-C
Battery Operating Time	4h
Protection Level	IP54
ATEX rating	Ex ib IIIC T80°C Db Ex II 2 G Ex ib IIC T4 Gb
Weight	Approx. 1100g
Dimension	342.5mm* 167mm* 89.9mm
Working Temperature Range	-20°C – 50 °C
Storage Temperature Range	-30°C – 60 °C
Humidity	10% – 95%
Applications	-40°C – 85 °C
Humidity	10% – 85%
Application Scenarios	Partial discharge/Gas leakage/Mechanical noise/Temperature
Partial Discharge Type Prediction	Corona/Floating/Surface/Noise
Pressured air value calculation	YES
Analysis Software	Included
Thermal Camera	
Thermal Sensor	640 x 512
Focal Length of Lens	13mm
Temperature Range	-20°C – 550°C
FOV of Lens	32.9° x 26.6°
Focal Length of Lens	13mm
Spatiaalinen erottelukyky (IFOV)	0.92mrad
NETD	≤40mk

4. APPLICATIONS

- **Leak Detection:** Locate compressed air, vacuum, and gas leaks based on ultrasonic signals to minimize energy loss.
- **Electrical Maintenance:** Detect and classify partial discharges in insulators, bushings, and high-voltage lines without physical contact.
- **Mechanical Reliability:** Identify bearing faults, resonance issues, and early-stage component wear.
- **Insulation & Heat Analysis:** Visualize overheated components or insulation failures using the integrated thermal sensor.

5. PACKAGE CONTENTS

- Audinos Elite EX Handheld Unit
- Rugged Protective Carrying Case
- Battery & USB Type-C Data/Charging Cable
- Professional Analysis Software
- Instruction Manual

Importer / Distributor:

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