

HA3X ATEX



Industrial Acoustic Imaging Camera for Partial Discharge Detection,
Pressurized Leak Detection and Mechanical Fault Detection

Key Features

- Partial Discharge Type Classification and Severity assessment on Camera and in-software
- Pressurized Leak rate and cost Quantify, CO₂ emissions on Camera and in-software to prioritize repair and calculate savings
- Mechanical fault detection for early identification of bearing problems, preventing costly downtime
- Automatic frequency tuning, 8x zoom, 13MP digital camera, 30 m laser rangefinder, LED light
- 3.5 hours continuous operation with 1 battery
- Anti-explosion



Main Applications

- **Power:** Designed for partial discharge (PD) detection on capacitive equipment in the power industry, with PRPD pattern display and PD type classification. Enables severity assessment for early identification of insulation defects.
- **Gas Leak:** Quantifies leak rate, cost, and CO₂ emissions of industrial gas and compressed air leaks, supporting repair prioritization and savings calculation.
- **Mechanical Diagnosis:** Mechanical fault mode for early detection of bearing issues, helping plan repairs and avoid unplanned downtime and costly losses.

Specifications

HA3X Acoustic Camera	
Acoustic sensors	144 low-noise MEMS microphones, real-time sound visualization
Detection bandwidth	2 ~ 150kHz
Minimum imaging sensitivity (1m)	10kHz: 2dB SPL 40kHz: -10dB SPL 60kHz: -5dB SPL 80kHz: 15dB SPL 100kHz: 25dB SPL
Threshold	-30dB ~ 120dB
Scan resolution	From 1° up to 0.125°
Spatial resolution	≤1cm@1m, 40kHz
Operation distance	From 0.3m (1.0 ft) up to 210m (689ft)
Dynamic range	18dB (Multiple Targets)
Partial discharge type recognition	Corona discharge, Surface discharge, Floating discharge and Particle discharge
Leak localization and detection	Automatic leak (vacuum leak) recognition including estimated leak rate, annual cost and CO ₂ emission calculation on camera
Leak rate detection sensitivity	0.032 l/min from 2.5m, 0.004 l/min from 6m, 0.3 l/min from 11.5m @ 120 kPa

Optical & Screen	
Optical camera	13MP
FOV of camera	72°±3°
Lighting	LED Lighting
Resolutions	4K (3840 × 2160), 1080P
Digital Zoom	1 / 2 / 4 / 8
Video image resolution	1920 × 1080 @ 60 fps
HMI	1920 × 1080, Size: 5 in. LCD
Distance measure	Laser rangefinder
Distance	0.1 m ~ 35 m (Max.)
Communications & Storage	
Data transfer	Wi-Fi 2.4 GHz and 5 GHz IEEE 802.11 b/g/n/ac wireless, USB memory disk, Bluetooth 4.2, OTG, FTP, RTSP
Listening	Listening with Headphone
Internal storage	128 GB (Up to 2TB)
External storage	Supports to 2 TB
Cloud storage	Optional
File format	.jpg, .mp4, .lfxs

HA3

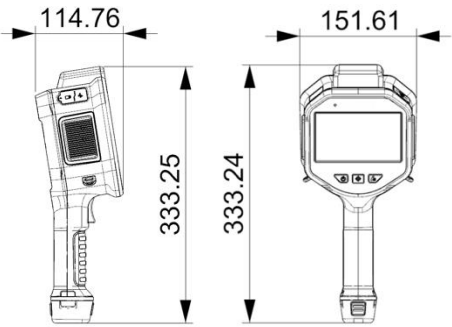
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Specifications

Functions	
Annotation	Text, Voice, Photo, Tags, GPS Info, Directions, Distance
Analysis	On-device analysis with PDF report PC-based analysis with multiple file Cloud based analysis optional
File management	On device file management system
Power Supply	
Camera input power	Standard Type C, PD 2.0
Battery	Nominal input voltage: 7.2 VDC Rated capacity: 4.7 Ah Max. input 8.4 VDC
Operation time	Up to 3.5 h standard mode with 1 battery Up to 7 h standby mode with 1 battery
Charging time	Approx. 2.5 h & PD Fast Charging
Battery charger dock	Input Max. 27 W, output Max. 22.5 W
Charger adaptor	Input 100 ~ 240 V (50/60 Hz) Output 9.0 V, 3.0 A USB-C Standard
Other Data	
Protection level	IP54
Tripod mount	UNC 1/4-20
Camera weight	980g (within battery)
Dimension	333mm × 152mm × 115mm
Working temperature	-20°C ~ 55 °C
Storage temperature	-40°C ~ 85 °C (Without battery)
Relative Humidity	10% -95% (Non-condensing)
Safety	IEC 62368-1
ATEX	Ex ib IIC T4 Gb Ex ib IIIC T80°C Db
Shipping Information	
Packaging, type	Air transport containers
Packaging contents	Camera Battery (2) Battery charger (USB-C) Battery charger dock Power cable (USB-C) Wrist strap Hard transport case USB memory stick Memory card slot reader Quick Start Guide Test report Warranty card
Packaging, weight	5 kg
Packaging, size	450 × 350 × 250

Dimension draw



Safety Notice & Disclaimer

Laser Safety Warning

*When operating the laser rangefinder, **NEVER aim the laser beam at human eyes or reflective surfaces.***

LED Light Warning

*Avoid **prolonged direct viewing of LED light sources** (may cause temporary visual discomfort)*

HERTZINNO **shall not be held liable** for any equipment damage or personal injury resulting from **non-compliant operation** (including but not limited to failure to read manuals, laser misuse, etc.).

Users assume all risks and legal consequences arising from failure to follow safety instructions.

For technical or sales support, please visit:
www.hertzinno.com

Please note that parameters are subject to change, and we encourage you to refer to Hertzinnno's official announcements for the most up-to-date information.
Hertzinnno reserves the right to provide final explanations for any changes that may occur.