CRY8129-EX

EX Ultrasonic Imager

IECEx

Ex

TÜV-Certified

Industry's First TÜV-Certified

Explosion Proof Acoustic Imaging Camera

Product Introduction

CRYSOUND introduces the new CRY8129-EX Acoustic Imaging Camera, **certified by TÜV** and intrinsically safe for use in explosive environments. With advanced capabilities, the CRY8129-EX redefines industrial inspection by precisely locating leaks, identifying partial discharges, and detecting mechanical wear. The CRY8129-EX is fully certified under IECEx and ATEX, and complies with IEC 60079-0 and IEC 60079-11.

TÜV-Certified IECEx & ATEX Zone 2 Certificate

The CRY8129-EX is TÜV-certified under IECEx and ATEX and meets IEC 60079-11 and 60079-0 standards. It can be used for gas leak detection in explosive gas and dust atmospheres. The Ex marking is: II 3 G Ex ic IIC T5 Gc / II 3 D Ex ic IIIC T100℃ Dc.

28-Day Extreme Reliability Testing for the Maximum Protection

The CRY8129-EX survived 28 days of continuous exposure to 90% humidity, 90℃ heat, and -25℃ cold, followed by drop tests, and retained its IP54 rating. Its energy-limiting circuitry and rugged housing ensure safe, reliable use in explosive atmospheres.

Integrated Testing, Analysis, and Reporting

The integrated workflow of the CRY8129-EX – from image capture and analysis to report generation – significantly improves the efficiency of gas leak detection, ensuring safer and more reliable daily operations.

Comprehensive Hardware Configuration

Bluetooth and Wi-Fi enable direct data transmission to local devices. Up to 4 IEPE sensors (accelerometers, microphones, etc.) can be added to the system, enabling complex detection scenarios and allowing for future expansion.

Detect Any Type of Gas in Explosive Atmospheres

The CRY8129-EX can detect any type of gas leaks - such as natural gas, hydrogen, and CO - in explosive atmospheres. It also quantifies leak rates and estimates economic losses in real time, enabling fast analysis and maintenance decision-making.

Applications

Oil Industry
Detect hazardous gas leaks such as H_2S, CH_4, and VOCs, helping to eliminate potential safety risks.

Natural Gas Industry
Detect leaks in critical infrastructure such as gas pipelines and storage tanks, helping to eliminate potential safety hazards and reduce losses.
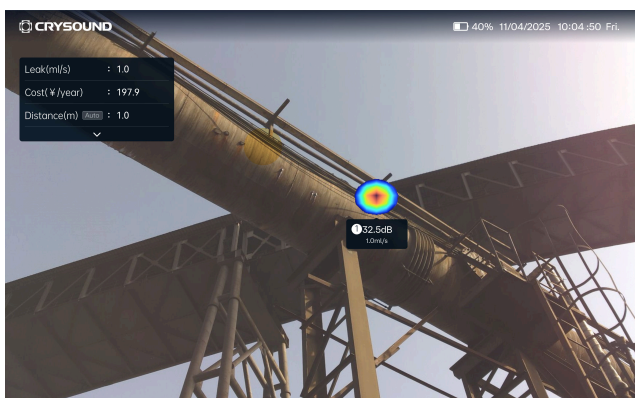

Chemical Industry
Detect leaks of Cl_2, H_2, N_2, steam, and other gases through non-contact detection, ensuring safe and efficient operation.

Gas Power Industry
Detect gas leaks in pipelines and tanks, as well as partial discharges in equipment like transformers, enabling fast detection to reduce accident risks.

Case Studies

A coal chemical enterprise detected a gas leak in an overhead pipeline using the CRY8129-EX Acoustic Imaging Camera, which could not be identified by traditional methods.

A natural gas storage station used the CRY8129-EX Acoustic Imaging Camera to detect gas pipeline leaks, identifying 8 leak points within one minute.

Technical Specifications

Acoustic Specifications

Microphone Array	200 MEMS microphones
Frequency Range	2k – 100k Hz
SPL Range	28 – 132 dB
Minimum Detectable Leak	10 m: 0.0029 L/min, 2.7 bar 0.5 m: 0.0028 L/min, 1.9 bar
Test Distance	0.2 – 200 m (1 – 656 ft)

Camera

Camera FOV	66°
Focal Length	4.3 mm (0.17 inches)
Camera Pixel	13M pixel
Digital Zoom	1x – 6x
Fill Light	4 × LED

Display

Resolution	1920 × 1200
Size	8 inches
Touchscreen	Capacitive touchscreen
Brightness	600 nits, supports auto and manual adjustment

Storage

Storage	64GB internal, 64GB external microSD card
Data Format	.jpg (picture), .mp4 (video), .wav (audio), .cdat (data)
Video Length	5 minutes
Data Export	USB-C, Wi-Fi, microSD card

Battery

Battery Capacity	6600mAh @ 7.2V
Battery Type	Smart battery with indicator, replaceable
Battery Life	Up to 5 hours

General Specifications

Size	270×190×51 mm (10.6×7.5×2.0 inches)
Weight	1.4 kg (3 lbs)
Wi-Fi	802.11a/b/g/n/ac
Bluetooth	BT 5.2
GNSS	GPS+BDS+GLONASS+GALILEO+QZSS

Certifications

Safety	IEC 61010-1
EMC	IEC 61326-1
Vibration	2g, IEC 60068-2-6
Shock	25g, IEC 60068-2-27
Drop Test	1.2 m (4 ft)
Ex Marking	⟨Ex⟩ II 3 G Ex ic IIC T5 Gc ⟨Ex⟩ II 3 D Ex ic IIIC T100℃ Dc

Software

Functions	Multi-point imaging, directional focus, distance measurement, leak volume estimation, PRPD spectrum, partial discharge type recognition, picture labelling, report export, etc.

Hardware Ports

USB-C 1	USB 3.0 for charging, HDMI, data export
USB-C 2	USB 2.0 for USB sensor
3.5 mm Audio Jack	Headphone output
MicroSD Card Slot	External storage
Analog Input	4 channels, 20 – 100k Hz IEPE, phantom power supply

Language

Language	Chinese, English, Korean, French, Japanese, Russian, German, Italian, EU Spanish, Portuguese, Hungarian, Dutch, Cambodian, Vietnamese, Turkish, Polish