



# CRY8125

## Ex Acoustic Imaging Camera



TÜV-Certified

Industry's First TÜV-Certified

Intrinsic Acoustic Imaging Camera



# Product Introduction

CRYSOUND introduces the new CRY8125 Ex Acoustic Imaging Camera, **certified by TÜV** and compliant with standards for use in explosive atmosphere. With advanced capabilities, the CRY8125 redefines industrial inspection by precisely locating leaks, identifying partial electrical discharges, and detecting mechanical wear. Fully certified under **IECEX and ATEX**, and compliant with **IEC 60079-0 and IEC 60079-11**, the CRY8125 is engineered for safe operation in explosive atmosphere.



## TÜV-Certified IECEX & ATEX Zone 2 Certificate

The CRY8125 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°C Dc.

## 28-Day Extreme Reliability Testing for the Maximum Protection

The CRY8125 endures 28 days of 90% humidity, 90°C heat, and -25°C cold, followed by drop tests, yet retains its IP54 rating. Its energy-limiting circuit and rugged housing ensure safe, reliable use in explosive atmospheres.

## Integrated Testing, Analysis, and Reporting

The integrated workflow of the CRY8125 – 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 CRY8125 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

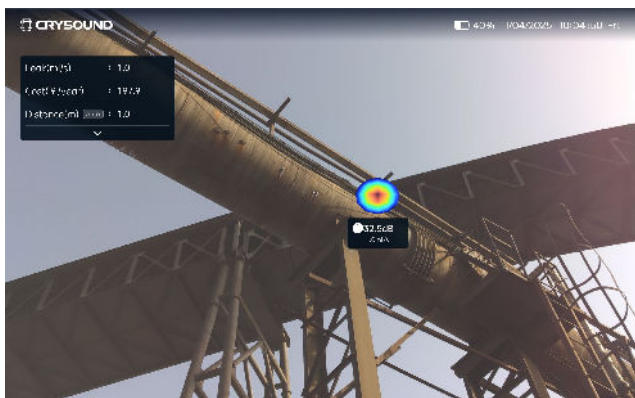
Detect leaks of  $Cl_2$ ,  $H_2$ ,  $N_2$ , steam, and other gases through non-contact detection, ensuring safe and efficient operation.



### 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 CRY8125 Ex Acoustic Imaging Camera, which could not be identified by traditional methods.



A natural gas storage station used the CRY8125 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<br>0.5 m: 0.0028 L/min, 1.9 bar |
| Test Distance           | 0.5 - 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 x LED              |

## Display

|             |                                               |
|-------------|-----------------------------------------------|
| Resolution  | 1920 x 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      | 270x190x51 mm (10.6x7.5x2.0 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 | ⚠ II 3 G Ex ic IIC T5 Gc<br>⚠ II 3 D Ex ic IIIC T100°C 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 |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|

## CRYSOUND

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