

## SonicView

Fixed acoustic imaging system for continuous gas leak monitoring

**24/7 continuous monitoring of gas leaks**

**Instantaneous estimation of leakage flow rate**

**Integration with industrial systems via Ethernet and OPC-UA**



### Technical specifications

#### Detection Technology

- Acoustic imaging

#### Sensors

- Ultrasonic microphone array
- Optical camera

**Detection Range** : Up to 20 m (typical)

**Detection Angle**: 180°

**Response Time** : 1 second

**Start-up Time** : 2 minutes

**Protection Rating** : IP65

**Weight** : 1,5 kg

**Dimensions** : 272 × 272 × 50 mm

#### Power Supply:

- 24 VDC (20–28 VDC)
- PoE 802.3at, Class 4

**Maximum Power Consumption** : 20 W

#### Industrial Communication

- Ethernet
- OPC-UA
- RTSP (video stream)

#### Relay Outputs

2 relays (fault / alarm)

#### Operating Temperature

- -20 °C to +50 °C

#### Compliance & Certifications

- IEC/EN 61010-1
- EMC Directive 2014/30/EU
- RED Directive 2014/53/EU
- RoHS III
- ATEX / IECEx (pending approval)

#### Accessories

- DS-AMBI adjustable mounting bracket (included)
- DS-URP1 U-adaptor plate (included)
- Wi-Fi or LTE antenna (optional)
- SonicRoof rain and snow protection
- Warranty: 2 years

### Product description

The **SonicView** is a fixed acoustic imaging system designed for continuous 24/7 monitoring of gas leaks in industrial environments.

By combining an ultrasonic microphone array with an integrated optical camera, it enables instant localization, visualization, and quantification of leaks up to 20 meters away.

**SonicView** transforms pressurized gas leak detection into an automated monitoring system with intelligent alert generation and event recording.

#### ► Key points

**SonicView** provides continuous 24/7 monitoring of gas leaks and can detect and locate them up to 20 metres away. Using technology that combines acoustic imaging and an integrated optical camera, it instantly estimates the leak rate and generates alerts based on the location, rate and duration of the event. It also allows incidents to be reviewed via a time-stamped video log and integrates easily with industrial systems thanks to Ethernet and OPC-UA protocols. Its fixed, robust design, with an IP65 protection rating, ensures reliable use in industrial environments.

#### ► How It Works

**SonicView** detects ultrasounds generated by pressurized gas leaks, regardless of the type of gas involved.

Unlike traditional concentration-based detectors, it does not require calibration gas or gas-specific recalibration.

The system analyzes in real time:

- Exact leak position
- Acoustic intensity
- Event duration
- Estimated leak rate

Alerts are configurable through a secure web interface accessible on the local network.

#### ► Typical applications

The **SonicView** is particularly suitable for refineries and industrial sites, industrial gas installations, critical compressed air networks, power stations and process industries. It is also suitable for monitoring pressure equipment requiring continuous leak control.



### ► Acoustic Imaging Technology

The **SonicView** system is based on an array of ultrasonic microphones combined with an integrated optical camera. When pressurized gas escapes from an installation, it generates ultrasonic waves that are imperceptible to the human ear.

The system:

- captures these ultrasonic signals
  - precisely locates the source of the leak
  - overlays the acoustic information onto the video image
- This enables an intuitive visualization of the leak.

This technology makes it possible to detect all types of gases, including invisible or flammable ones such as hydrogen.



### ► Intelligent Monitoring

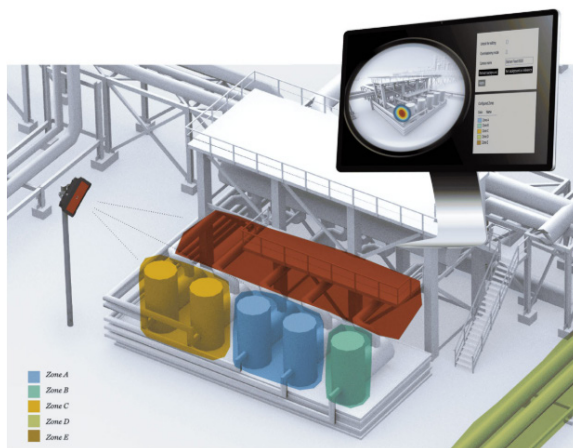
**SonicView** allows users to define specific monitoring zones and customize alert thresholds.

Depending on the severity and location of the leak, various actions can be triggered automatically:

- maintenance alert
- email notification
- activation of a safety alarm
- automatic shutdown of a critical installation.

The system features two alert levels:

- maintenance alert
- safety alert.



### ► Avantages de l'imagerie acoustique

Technology	Limitations
Conventional gas detector	Requires the gas to reach the sensor directly
Laser UGLD	Depends on the type of gas and on the line of sight
Distran acoustic imaging	Immediately detects leaks at a distance (no direct contact required)

The main advantages of this system lie in its ability to detect leaks regardless of the type of gas, to operate even in ventilated or outdoor environments, to pinpoint leaks instantly, and to provide fully automated, continuous monitoring 24 hours a day, 7 days a week.