

Honeywell
THE POWER OF **CONNECTED**

Gas Detection



Searchzone Sonik™

The Sound of Safety in Any Environment

Search. Detect. Protect. ULTRASONICALLY

The Hazard is Blowing in the Wind

Field studies have shown that around 30% of flammable gas leaks can go undetected because the gas is blown away by the wind. But if the weather conditions change, and the wind drops, the chances are that a flammable gas cloud might build up and trigger incidents and hazards.

Since traditional point and open-path devices cannot detect leaks unless the gas reaches the sensor, the need arose for a revolutionary and complementary type of gas detection technology. Instead of waiting for the gas to reach the detection device, an ultrasonic detector operates by responding to the sound created by high-pressure gas leaks at source.



How do you sense what you can't hear?

Since gas does not need to come into contact with their sensors, ultrasonic (or acoustic) detectors respond instantly upon "hearing" the distinct sound pattern of a leak, operating at a frequency outside the range of human hearing.

Unaffected by airflows and adverse weather conditions, they are particularly suited to open and well-ventilated areas, such as floating production storage and offloading vessels, gas turbine power plants, compressor stations, gas storage facilities, petrochemical processing plants, refineries, or offshore and onshore oil and gas installations.

Searchzone Sonik – Safe and *Ultrasound*

The new Honeywell Searchzone Sonik is a robust and reliable gas leak detector that will efficiently "hear" the loss of containment of any high-pressure gas within its listening zone. An advanced, SIL 2 certified, hazardous area ultrasonic gas leak detector, the Searchzone Sonik responds to the ultrasonic sound pressure level produced by pressurized gas leaks and is therefore unaffected by environmental conditions.

Searchzone Sonik is factory calibrated. Its robust sealed design with no moving parts and the solid-state sensor allow for mounting in any orientation, even in the harshest environments. The gas leak detector will respond quickly to a gas leak within a sensing range radius of typically 20m (65 ft), dependent upon background noise. The intelligent background noise detection system allows the detector to be set up for maximum sensitivity while Focus Mode means that the detection area can be restricted to only include the hazard being monitored. This way you have confidence that you'll always stay safe and *ultrasound*.

Normal Mode will detect ultrasonic noise from a wide angle, which is ideal for areas that have lower or constant levels of background noise.

However generally you will generally know where the potential source of the leak is.

That is where Searchzone Sonik™ comes into it's own. Switch to Focus Mode (patent pending) and Searchzone Sonik™ will enable special algorithms that effectively screen ultrasonic noise generated outside of the specific area of interest. This dramatically reduces the risk of alarms from spurious noise sources.

You Own the High Ground

Suppose you are servicing an ultrasonic device that complements the point and open path gas detectors of an offshore platform. It's raining, the wind is blowing heavily, and you're on a slippery deck, a long way below the Searchzone Sonik you need to reach.

Concerned about working at heights, in awkward positions that may even threaten your safety? Think again. Thanks to an easy-to-use mobile app and a dedicated testing tool, you can connect from ground level and test the Searchzone Sonik remotely, without exposing yourself to hazards. All you need to do is to stand on the deck, connect with your smartphone, and use the testing tool to check the detector's response – it's as easy as 1, 2, 3 to have the high ground.





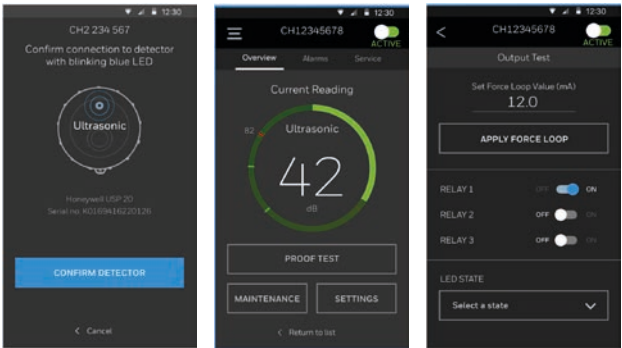
Harsh Weather Conditions? Ultra Gas Detection Additions.

- **Provides reliable gas leak detection in a wide range of applications and working environments**
By using a solid state sensor, completely sealed from moisture and contaminants, the Searchzone Sonik will identify gas leaks even in the harshest environments and adverse weather conditions.
- **Lowers the risks of false alarms**
Thanks to its background noise detection system, the detector has maximum sensitivity and is immune to false alarms produced by process or maintenance activities.
- **Increases mobility and ease of use**
You can test your Searchzone Sonik and run confidence checks on your smartphone from up to 20m (65 ft) away.
- **Minimizes cost of ownership and saves time**
The Searchzone Sonik is easy to install, commission and maintain; and by using the dedicated mobile app, you can access it in the blink of an eye.
- **Ensures reliable response in case of emergencies**
With a Safety Integrity Level rating of 2, the Searchzone Sonik is appropriate for applications requiring an emergency shutdown and other automatic controls.
- **Prevents fires, explosions and toxic exposure**
By identifying any high pressure gas leak, the Searchzone Sonik allows proactive action to avoid fatal hazards that might endanger the workers' life and the integrity of your business assets.

Safety, Reliability and Comfort. On the Spot.

Bluetooth Connectivity

✖ Set-up and interrogation from ground level via Bluetooth using a dedicated application on mobile phones or tablets.



Complements Existing Gas Detectors

The Searchzone Sonik seamlessly integrates with existing point and open-path detectors in the gas detection layer.



Simple Installation and Alignment

The versatile adjustable mount is supplied as standard and features graduated 3 degrees of freedom enabling easy mechanical set-up with a wide range of mounting options.

Robust Materials

Low copper aluminum or stainless steel housing.

No Moving Parts

The solid-state sensors work flawlessly even in the harshest environments and don't need additional calibration.

Wide Zone Coverage

20m (65 ft) detection radius, dependent upon background ultrasonic noise levels.

Focus Mode

Effectively an ultrasonic screen. Ignore sources of spurious noise to the sides and behind the detector so that it only monitors the immediate hazard.

Instrument Status at a Glance

The Searchzone Sonik features a bright indicator light – green, yellow, red, or blue – providing clear indication of the instrument status.

Inbuilt Diagnostics and Full Operational Logs

Enables post-event analysis to assess overall performance and allows security checks.



GAS JOURNEY

| Searchzone Sonik applications



Applications and Operating Environment

Production

Exploration vessels • Wellheads • Compressors • Metering skids • Valves.

Storage

Pumps • Valves • Seals.

Gathering and Processing

Compressors • Processing plant • Turbines • Gas safety valves.

Transmission and Distribution

Compressors • Pipelines • Metering stations • Valves.

Afraid of Missing Gas Leaks? Set Your Mind at **Ease**.

Ease of Operation

- Robust, solid state sensor design, fit for demanding environments including pressure wash-downs.
- Factory calibrated – no field calibration needed.
- Built-in test and diagnostics to maintain operation.
- A wide range of outputs to enable system design, including 4 to 20 mA, HART, Modbus, Relays.
- Bright light indicator for safety awareness; a unit needing maintenance is easier to locate.

- Real-time detection readings and full logging simplify asset management.

Ease of Installation

- Universal mount with three degrees of freedom enables pole, wall, or strut mounting and easy alignment with the area to be covered.
- Wiring compartment with angled cable entry and plugged terminals, separated from the sensing electronics.
- App for smartphones and tablets with installation guide and logging helps set-up and asset management.

Ease of Commissioning

- The high visibility bright light provides clear indication of the device status.
- No need to work at height thanks to the ability to run remote set-up using the Bluetooth app on your phone or tablet.
- The easy-to-use Ultrasonic Test Tool enables fast checking of the area of coverage.
- Automatic generation of commissioning log.

Ease of Maintenance

- The reliable internal self-testing and diagnosis enable pro-active maintenance.
- Via a Bluetooth app, non-intrusive interaction reduces maintenance time and safety risks.
- Simple module replacement if necessary; plug and play.
- Automatic generation of maintenance logs.

