

# Searchzone Sonik™ Ultrasonic Gas Leak Detector

GENERAL	
Manufacturer	Honeywell
Model	Searchzone Sonik™ Ultrasonic Gas Leak Detector
Part Numbers	SZSK-SMGXX, SZSK-SNGXX
GAS DETECTOR SPECIFICATIONS	
Sensor Type	Tuned piezoelectric transducer
Detection Method	Sound Pressure Level at sensor
Frequency Range	18 kHz to 70 kHz
Dynamic Range	40 dB to 140 dB
Calibration	Factory calibrated
Detector Range	Typically 20 m on-axis radius (background noise dependant)
Recommended Alarm Setting	6 dB above background noise
Cone of Detection	+/- 90 degrees (Standard Mode), +/- 20 degrees (Focus Mode); solid angle from on axis to 6 dB down
Speed of Response	Sensor response 1 s; Programmable Verification time from 0s to 600 s.
Electronic Self Test	Built in test diagnostics
Storage Temperature	-55° C to +75° C (-67 °F to 167 °F)
Operating Temperature	-55° C to +75° C (-76 °F to +167 °F)
Operating Humidity	0 to 100% RH
Warm-up Time	Less than 5 minutes (operational)
Power Supply & Maximum Power Consumption	24Vdc nominal (18 Vdc to 32 Vdc); 167mA at 24 Vdc (3 W), 4W for ambient operating temperature -30°C and above, 15 W for ambient operating temperature below -30°C (heater is active)
Cable entries	2 x M25 or 2 x 3/4" NPT
Outputs	Relays (1 fault, 2 Alarm) – contact rating 2 A (resistive load). Fully configurable 4 – 20 mA isolated, sink or source (maximum loop resistance 600 ohms); Fault < 1 mA, Warning 3 mA, Over-range 22 mA. Linear configurable output corresponding to Sound Pressure Level.
Analog Thresholds	0 mA Fault, 2 mA Inhibit, 4-20 mA Normal Operation
Digital Communications	Modbus RTU RS-485. HART® with handheld communicator or hardwired. Bluetooth to smartphone or tablet (20 m range, device dependent).
Event Logs	Time stamped
Visual Indication	High Visibility light ring; green/yellow/red/blue multi-colour to indicate detector status. Green (normal) indication can be disabled via Searchzone Sonik App.
Dimensions	Instrument: 103 dia x 235 x 176 mm Standard Mount: 165 x 165 x 127 mm Large Mount: 210 x 210 x 127 mm
Enclosure Material	Stainless Steel 316L; with paint finish
Standard Adjustable Mounting Bracket	Stainless Steel. Graduated to enable Searchzone Sonik to be simply mounted and aimed in 5 degree steps, weight 2.9 kg (6.4 lbs)
Large Adjustable Mounting Bracket	Stainless Steel. Graduated to enable Searchzone Sonik™ to be simply mounted put on one line and aimed in 5 degree steps, weight 3.5 kg (7.7 lbs)
Interfaces	Bluetooth® non-intrusive connection to suitable mobile device running the Searchzone™ Sonik mobile app. Range up to 20 m (mobile device dependant).
Vibration	2 - 60 Hz, maximum peak to peak amplitude 1 mm
Ingress Protection (IP) Rating	IP 66 / 67 (Type 4X), according to NEMA 250
Core Approvals (pending)	EN 50270: 2015 (EMC) IEC/EN 61000-6-4; EMC Directive 2014/35/EU IEC/EN/UL/CSA 61010 (Electrical Safety) FCC RoHS, China RoHS

**GAS DETECTOR SPECIFICATIONS**

<b>Safety Approvals</b>	<p>ATEX                  Ⓜ II 2 GD                  Ex db ia IIC T4                  Ex tb IIIC T85°C                  Ex db eb ia IIC T4                  Tamb -55 to +75°C (-67 to 167 °F)</p> <p>cULus                  Class I, Div 1, B, C &amp; D                  Class II/III, E, F &amp; G (pending)                  Tamb -55 to +75°C                  Class I Zone 1 AEx d ia IIC T4 (USA)                  Class I Zone 1 Ex d ia IIC T4 (Canada)</p> <p>IECEX                  Ex d b ia IIC T4                  Ex tb IIIC T85°C                  Ex db eb ia IIC T4                  Tamb -55 to +75°C (-67 to 167 °F)</p>
<b>Marine Approvals (pending)</b>	Type approved to DNV, BV, Lloyds, ABS Location Classes: Temp B, Humidity B, Vibration A & C, EMC B
<b>Other Approvals (pending)</b>	<p>BT SIG (Bluetooth), RED, FCC+, country-specific wireless approvals                  EN 61508:2010 SIL2 -55 °C to +75 °C, independently assessed by TÜV                  CCCF                  Inmetro                  CU TR-Ex (Eurasian Customs Union), Tamb -60 to +85°C (-76 to 185 °F)</p>
<b>Bluetooth communication security</b>	Certificate-based mutual authentication. Encryption to AES128
<b>Warranty Period</b>	36 months from date of shipment.
<b>ACCESSORIES</b>	
<b>Adjustable Mounting Bracket</b>	Standard bracket (included). Large bracket (optional)
<b>Sunshade</b>	Plastic (included), stainless steel sunshade (optional)
<b>Hand-Held Tester</b>	Hand-Held Sonik Test Unit. featuring leak seeking function. Check with Honeywell for availability.
<b>Hand Held Communicator</b>	U.S. Android Smartphone. Download the Searchzone Sonik™ App from Google Play Store

