

| SENSATA RESONIX™

RGD SERIES REFRIGERANT LEAK SENSOR

The Sensata Resonix refrigerant leak detection sensor is a compact embedded module designed to meet demanding OEM requirements and be easily integrated into HVAC & Refrigeration Equipment. Featuring the innovative Speed of Sound technology with high accuracy and fast response times. Superior resistance to overexposure and poisoning, high temperature and humidity resistance, and a lifetime greater than 15 years with no need to calibrate make the Sensata Resonix the ideal, easy to maintain, solution for HVAC&R systems.



Features

- Widest operating temperature range: -40°C to 105°C
- Industry leading lifetime: >15 years
- Low power consumption: <40 mA max.
- Fastest response time: T28 of 2.5s, T60 of 5s (average)
- Short warm up time: <5 seconds
- No calibration or re-zeroing required over lifetime
- Operating humidity: 0 to 100%RH (condensing)
- IP54
- Immune to poisoning
- No false alarms due to fouling gases
- Industry leading response and start-up time
- Recognized to UL60335-2-40

Applications

- Residential and commercial air conditioning
- Heat Pumps
- Refrigeration equipment

SPECIFICATIONS

Mechanical

Materials	Housing: 33% Glass-reinforced PPA Resin Cable: PVC
Dimensions	50 x 80 x 18 mm
Vibrations	10 Hz to 31.5 Hz with 1.0 mm total excursion 31.5 Hz to 150 Hz with 2G acceleration peak
Weight (Approx.)	50 g

Electrical

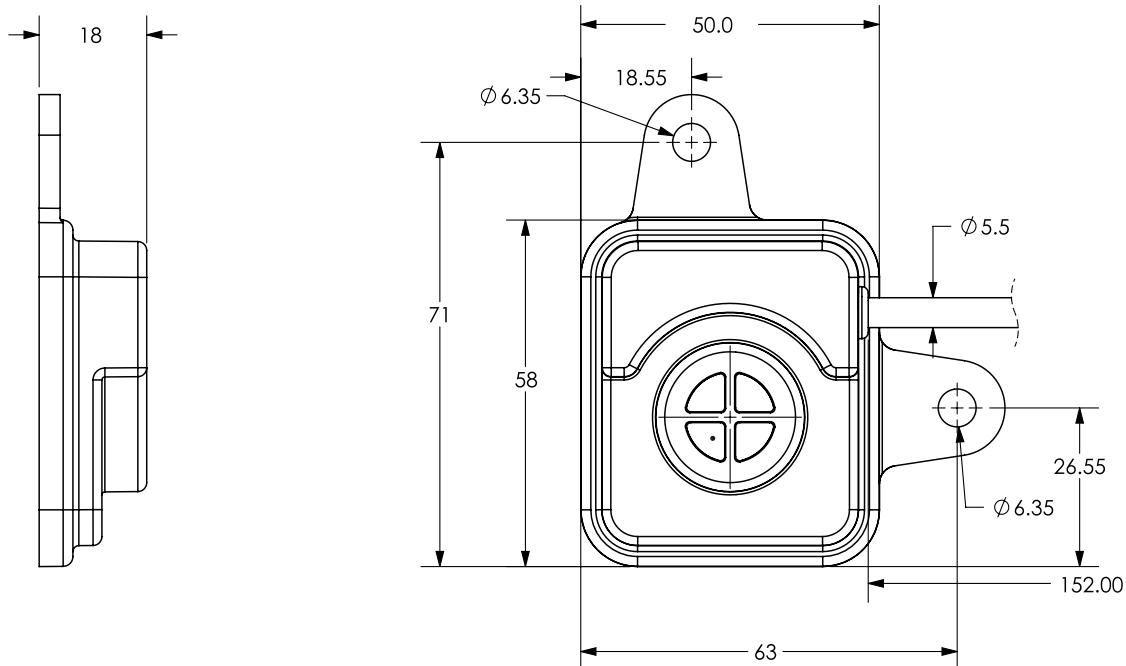
	Modbus, 5 V input ("L")	Modbus, 24V input ("H")
Supply voltage	3.3 to 5 VDC	6 VDC to 30 VDC 15 VAC to 30 VAC
Current Requirement	40mA max.	10 mA (24 VDC), 22.23 mA (24 VAC)
Output	RS485, termination resistor not required	RS485, termination resistor not required

Environmental / Performance

Target Gases	R32, R454 series and R455 series refrigerants (other refrigerants may be considered upon request.), R1234yf
LFL Range	0 – 100%
Response Time	T28 of 2.5s, T60 of 5s (average)
Warm Up Time	< 5 seconds
Accuracy	±2.5 % of LFL
Working Temperature	-40°C to +105°C
Storage Temperature	-40°C to +105°C
Working Humidity	0 to 100% RH (Condensing)
Working Pressure	70 to 120kPa
Protection (EN 60529)	IP54
Fault Detection	Sensor Out of Range
Calibration	Factory calibration, no field calibration required
Compensation	Temperature and Humidity
Lifetime	>15 years
Conformity	UL 60335-2-40 ed.4 Annex LL, UL 60335-2-89

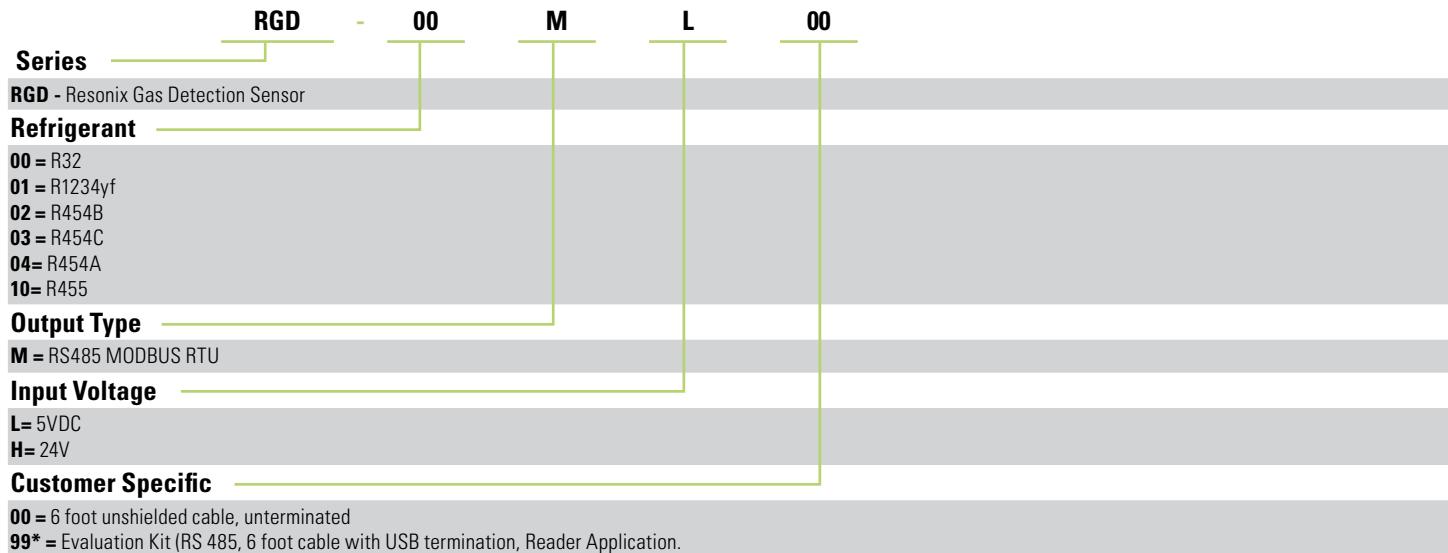
DIMENSIONS

Dimensions in mm



ORDERING OPTIONS

Example : RGD-00ML00



* Evaluation kit is intended for evaluation purposes only, and not intended for environmental testing or installation in units used outside of lab settings.

AGENCY APPROVALS & CERTIFICATIONS



Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, valuation, and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements, and other changes to its data sheets or components without notice. Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. **HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.**

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY, AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA

CONTACT US

Americas
SENSATA TECHNOLOGIES INC.
529 Pleasant Street,
Attleboro, MA 02703
USA
+1 (800) 350 2727
sensors@sensata.com