

| SENSATA RESONIX™

RGD SERIES REFRIGERANT LEAK SENSOR

Introduction

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

- Comply to UL60335-2-40 ed.4
- Works with R32, R454 series and R455 series refrigerants
- LFL range: 0 – 100%
- Built in environmental compensation
- Low power <40mA
- +15 years lifetime
- No field calibration required for the full lifetime

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

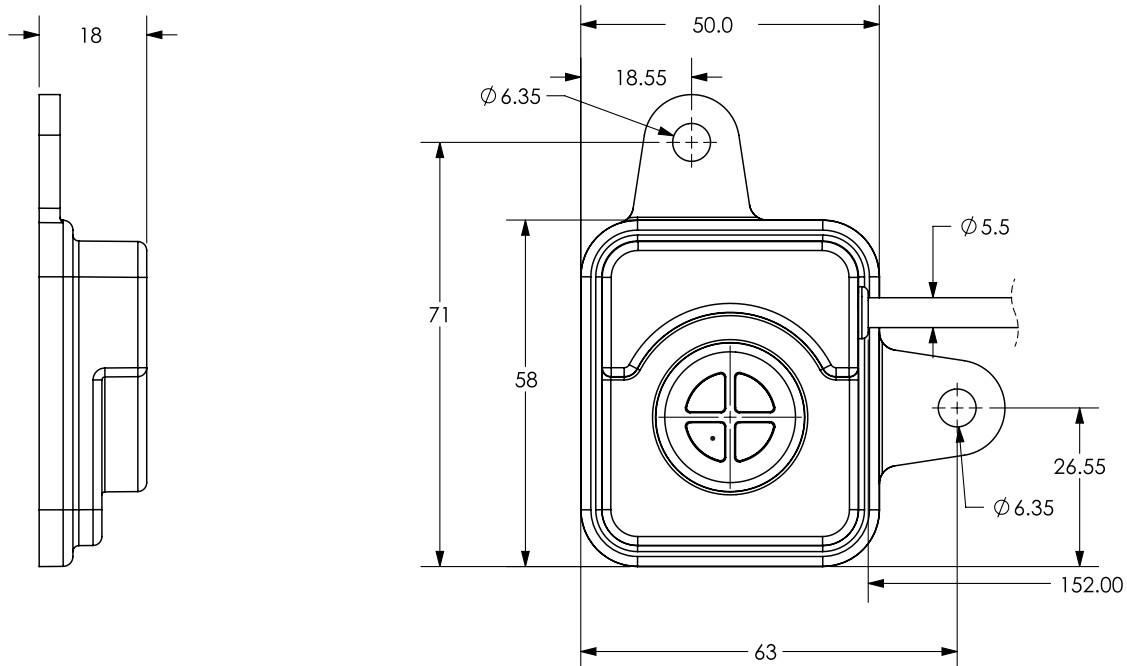
Output	RS485 Modbus RTU
Supply Voltage	3.3 to 5 VDC
Current Consumption	< 40mA

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	<10 seconds T25, <30 seconds T90.
Warm Up Time	< 5 seconds
Accuracy	±2.5 % of LFL
Working Temperature	-40°C to +85°C constant, +85°C to +105°C intermittent
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 ed.2 Annex 101.DP

DIMENSIONS

Dimensions in mm



ORDERING OPTIONS

Example : RGD-00ML00

	RGD	-	00	M	L	00
Series						
RGD - Resonix Gas Detection Sensor						
Refrigerant						
00 = R32						
01 = R1234yf						
02 = R454B						
03 = R454C						
04 = R454A						
10 = R455						
Output Type						
M = RS485 MODBUS RTU						
Input Voltage						
L = 3.3 TO 5 VDC						
Customer Specific						
00 = 6 foot unshielded cable, unterminated						
99* = Evaluation Kit (RS 485, 6 foot cable with USB termination, Reader Application.						

* 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



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