

REFRIGERANT LEAK DETECTOR

cool 
guardian




MADE IN ITALY

 **seitron**
Americas

COOL GUARDIAN

REFRIGERANT GAS LEAK TRANSMITTER

COMPLETE REFRIGERANT GAS RANGE

**R744
(CO₂)**

R410A

R134A

R32

R454B

R407C

R290

**R717
(NH₃)**



OUTPUTS

Configurable analog output
(4-20mA, 0-5V, 0-10V, 1-5V, 2-10V)



MODBUS COMMUNICATION

Up to 32 devices connectable via
RS485 interface



RELAY OUTPUTS

Three relays to serve as fault
detector, low and high-level alarm
triggers



INCREASED SAFETY

Built-in audible and visual alarms
for an immediate danger warning, in
compliance with safety standards



EASY TO USE

Commissioning and maintenance
without special tools



Cool Guardian Refrigerant Leak Detector, uses fast response time, **low-temperature performance** (-40..+122°C / -40..+50°F), and **integrated audio and visual alarms**, simplifies and facilitates compliance and safety regulations.

Modern refrigeration systems are engineered for optimal efficiency and airtight integrity. However, improper installation, unintentional damage, or mechanical wear and tear can potentially lead to dangerous gas leaks.

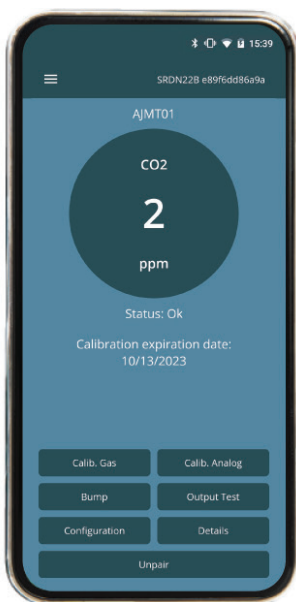
In this context, Cool Guardian gas transmitter **serves as a vigilant guardian against unforeseen leaks**, which could compromise both the environment and human health.



Technical Features

Power supply voltage:	12 .. 24 Vac \pm 10% or 12 .. 24 Vdc \pm 10%
Power absorption:	5 W
Relay outputs	
Contact rating:	3 x 1A 30 Vac (voltage free)
Analog Output:	4-20mA, 0-5V, 0-10V, 1-5V, 2-10V - configurable via App
Modbus® output:	Via RS485 with Modbus® RTU protocol Up to 32 connectable devices
Protection degree:	IP65 (With cables/plugs inserted in the cable glands)
Operating temperature:	-40 .. +122 °F (-40 .. +50 °C)
Operating humidity:	20% .. 90% RH (non-condensing)
SIZE (W x H x D):	7.5 x 7 x 4.4 inch (190 x 176x 112 mm)

App Seitron Guard



The Seitron Guard mobile app simplifies configuration, maintenance, and interaction with Cool Guardian gas transmitters. Setup, calibration and use of the detectors is made simple and immediate, thanks to Bluetooth® connectivity:

- **Bump test / Calibration**
- **Product Configuration:** device renaming for easy locating, alarm thresholds setting and output settings management
- **Maintenance:** LED tests, buzzer function and relay control
- **User friendly monitoring**



Applications

Selection of the appropriate gas sensor to monitor the presence of refrigerants in **industrial processes, commercial cooling systems, or refrigeration facilities** is crucial when it comes to fixed gas transmitters. These transmitters are designed to accurately detect and measure various refrigerant gases, providing essential data for maintaining the integrity of refrigeration systems and preventing potential leaks.



Industrial Refrigeration

Large-scale refrigeration systems in industries like food processing, pharmaceuticals, and cold storage facilities rely on refrigerant gas. Leak transmitters help detect leaks promptly, preventing environmental damage and ensuring the safety of workers.



Mechanical Rooms

Mechanical rooms can pose safety risks due to the presence of different gases. Refrigerant gas leak transmitters continuously monitor the environment for leaks, ensuring the safety of personnel working in these areas by promptly detecting any gas leaks.



Process Cooling / Chillers



Chiller systems often use refrigerants to maintain specific temperatures for industrial processes. Leak transmitters provide continuous monitoring, ensuring that any leaks are promptly detected to prevent disruptions in the cooling process.

HVAC Systems



Heating, ventilation, and air conditioning (HVAC) systems in commercial buildings, hospitals, hotels, and shopping malls use refrigerants. Leak transmitters aid in monitoring and detecting leaks.

Laboratories and Research Facilities



Laboratories, especially those handling sensitive materials or operating with precise temperature control, utilize refrigeration systems. Leak transmitters play a critical role in maintaining the integrity of experiments and preserving samples by promptly detecting leaks.



Complete range of refrigerant gas sensors for your applications

Renowned for their precision and reliability, Seitron's detectors boast a diverse range of sensors meticulously designed to identify and pinpoint leaks in various refrigeration systems.

From industrial-scale refrigeration units to HVAC systems, Seitron's Cool Guardian is equipped with sensors for detecting a multitude of refrigerant gases.

Calibration Kit for easy on field calibration

Seitron Cool Guardian calibration is very easy, thanks to our optional calibration kit and to the Seitron Guard mobile App.

The calibration kit (ACKC01) includes a magnetic stick and a gas adapter. These items allow to operate on the field, without removing the detector's cover. By following step-by-step instructions on the App, the user can fine-tune the device ensuring high performing operations.

Periodic Bump test and Calibration of the Cool Guardian Stand Alone Transmitter help to maintain the safety and efficiency of refrigeration systems.



Code	Gas	Sensor Type	Range
Cool Guardian R744 (CO2)	R744 (CO2)	NDIR	0 .. 10.000 ppm
Cool Guardian R410A	R410A	Semiconductor	0 .. 1.000 ppm
Cool Guardian R134A	R134A	Semiconductor	0 .. 1.000 ppm
Cool Guardian R32	R32	Semiconductor	0 .. 1.000 ppm
Cool Guardian R454B	R454B	Semiconductor	0 .. 1.000 ppm
Cool Guardian 407C	R407C	Semiconductor	0 .. 1.000 ppm
Cool Guardian R290	R290	Semiconductor	0 .. 2.500 ppm
Cool Guardian R717 (NH3)	R717 (NH3)	Electrochemical	0 .. 100 ppm

RYF01M

CONTROL UNIT FOR MECHANICAL ROOM

To be used in **Mechanical and Refrigerant Rooms**, designed for wall mounting.

180x128 **graphic LCD display**

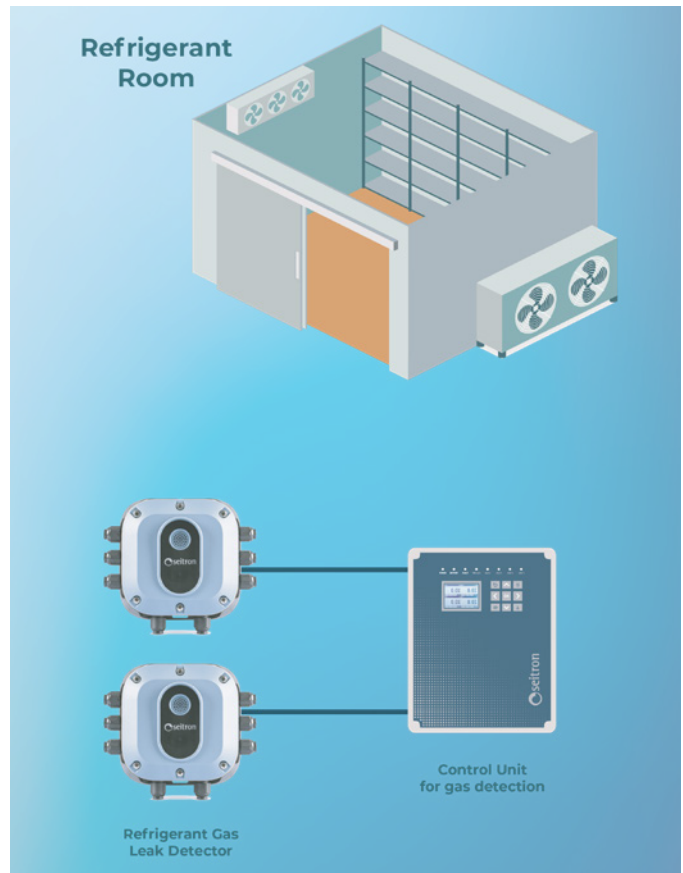
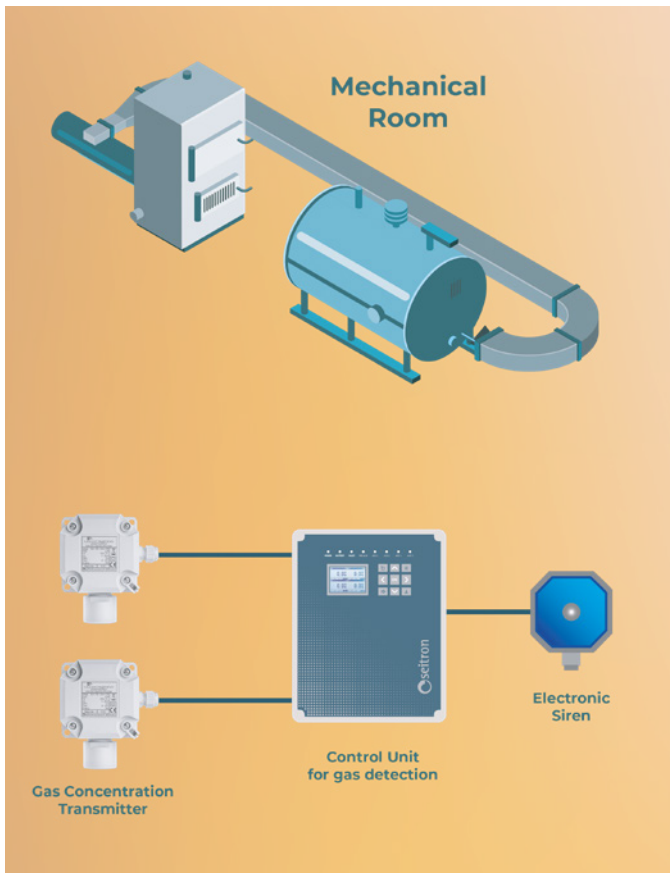
8 LED indicators and signaling buzzer.
9 buttons keyboard

Power supply: 85 .. 254 Vac 50/60 Hz
12 Vdc

Inputs: 8 x 4..20 mA
1 external input for Fire Alarm
1 external input for Manual Reset

Modbus for up to 32 gas concentration transmitters

Outputs: 5 x 5 A 250 Vac SPDT



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SEITRON AMERICAS INC
140 Terry Drive - Ste 101
Newtown, PA 18940 USA - Tel. (215) 660-9777
info@seitronamericas.com - www.seitronamericas.com