

# AC/Refrigeration Gas Leak Detection & Testing Instruments



# REFRIGERANT LEAK DETECTOR

### **COMPLETE REFRIGERANT GAS RANGE**









HFC

BLENDS



### **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







The Cool Guardian Refrigerant Leak Detector, characterized by fast response time, **low-temperature performance** -40 .. +50 °C (-40 .. +122 °F), and **integrated audio and visual alarms**, simplifies and facilitates compliance to 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 hazardous leaks.

The Cool Guardian gas transmitter serves as a vigilant guardian against unforeseen leaks, which could compromise both the environment and human healt.

### Complete range of refrigerant gas sensors for different 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.

### **Cool Guardian is already available for:**

CO2 (R744A) R410A R407C R454B R134A

... more sensors coming in 2024!

### **Calibration Kit for easy in-field calibration**

Seitron Cool Guardian periodic calibration is very easy, thanks to our calibration kit and Seitron Guard mobile App. The optional calibration kit 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 Cool Guardian Stand Alone Transmitter help to maintain the safety and efficiency of refrigeration systems.

### **Technical Features**

**Power supply voltage:** 24 Vac ± 30% or 12 .. 24 Vdc ± 20%

**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)

-40 .. +50 °C (-40 .. +122 °F) **Operating temperature: Operating humidity:** 20% .. 90% RH (non-condensing) SIZE (W x H x D): 190 x 176x 112 mm (7.5 x 7 x 4.4 inch)

### **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



### be cool

### 4-way digital manifold be cool M4

**be cool M4** is the digital manifold with four-way valve block, equipped with a rechargeable battery. The execution of measurements on refrigeration and air conditioning systems and on heat pumps are facilitated by pre-configured parameters, such as superheating and subcooling, in addition to the possibility to reverse pressures on the instrument. The instrument can be remotely controlled and managed with Seitron be cool Mobile App.

- Pressure reversal set by the user on the instrument
- Selection from more than 80 refrigerant gases (included R410, R32, R404)
- Intuitive and simple interface on a 5" touchscreen color display
- Real-time data analysis, also with mobile App
- 2 years warranty
- Possibility to read and export data via USB
- Ideal for commissioning, servicing and maintenance of refrigeration and air conditioning systems and heat pumps



#### **TECHNICAL FEATURES**

Pressure working range: -1.0...+55.2 bar
Vacuum measurement range: 0...19.000 micron

Settable measurement units: psi, kg/cm2, cmHg, inHg, bar, kPa, MPa

Refrigerant gases included: 88 (included R410, R32, R404)
Power supply: Rechargeable battery (5000 mAh)

Display: 5" touchscreen colors display

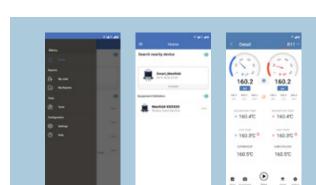
Dimensions (LxWxH): 10 x 8.5 x 2.8" (254 x 215 x 71 mm)



### The kit includes:

- 4-way digital manifold
- Temperature clamp probes (2 units)
- Vacuum Probe (with T-joint and bent joint)

- Flexible hoses (4 units)
- Portable hard case





Control your Manifold directly from the **seitron be cool** App

### be cool

# Refrigerant Scale (up to 100 kg / 220 lb) be cool B100

The **be cool B100** wireless refrigerant scale allows you to weight refrigerant gases (up to 100 kg / 220 lb) in a simple, accurate and fast way. Management and display of measured values can be done with the Seitron "be cool mobile App".

- Stable and accurate sensor for a reliable measurement
- 2 years warranty
- Robust aluminum scale, with impact-resistant rubber corners, easy to transport in the handy case
- Scale measurement with handheld controller or via smartphone





### **TECHNICAL FEATURES**

Working range: 0..100 kg / 220 lb

Resolution: 5g

Accuracy: ±0.05% rdg+10g

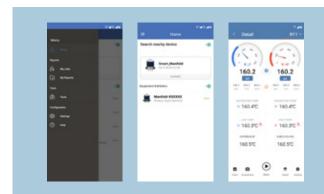
Settable measurement units: kg, lb

Dimensions (LxWxH): 10.5 x 10.5 x 3" (271 x 271 x 74 mm)

### The kit includes:

- Refrigerant Scale (up to 100 kg / 220 lb)
- Handhold controller

- Disposable batteries
- Transport bag
- Quick Guide





Control the refrigerant scale gases directly from **seitron be cool** App

## Heated diode refrigerant leak detector be cool R1

The **be cool R1** refrigerant leak detector is the essential tool to reliably detect all common refrigerants, thanks to the heated diode sensor. Different sensitivity levels allow the user to detect also the smallest leaks, with indication on the display or with an alarm.

- Highly sensitive, responsive and long-lasting sensor
- 2 years warranty
- Reliable and easy detection of refrigerant leaks, with Automatic or Manual modes
- Detection of most common refrigerants: CFCs, HFCs, HCFCs, HFOs and blends

#### **TECHNICAL FEATURES**

Sensor: with heated diode

Minimum sensitivity: 3 g/year Display: LCD

Refrigerants available: CFCs, HCFCs, HFCs, HCs and HFOs

Flexible probe length: 16.5" (420 mm)

### The kit includes:

- Refrigerant Leak Detector
- Disposable Batteries
- Quick guide



### **Smart Micron Vacuum Gauge** be cool V1 and t-joint

The **be cool V1** digital micron vacuum gauge with rechargeable batteries allows you, to measure the vacuum of refrigeration systems and heat pumps in a precise and easy way. Seitron be cool mobile app allows you to monitor and transmit data in real time.

- Simple data visualization on wide display
- 2 years warranty
- Real-time data monitoring and transfer via mobile App
- Offline data recording

#### **TECHNICAL FEATURES**

Working Range: 0..19,000 micron

Resolution: 1..400 1 μ

> 401..3,000 10 μ 3,001..10,000 100 μ 10,001..19,000  $250 \, \mu$

Overload Vacuum 400 psi

 $\pm 10\% \text{ rdg} \pm 10 \mu (1...10,000 \mu)$ Accuracy:

±20% rdg (10,000...19,000 μ)

Settable measurement units: µ, mTorr, in/hg, Pa, Torr, KPa,

mbar and psi



### The kit includes:

- Micron Vacuum Gauge
- Li-ion Battery
- Quick Guide



**T-Joint** included













Control the vacuum gauge directly from the seitron be cool App

