

BRASCH

REFRIGERANT LEAK DETECTOR



Model BGS-RF-STD

The BRASCH refrigerant leak detector provides an early warning of a refrigeration system leak. Most refrigerants are not considered toxic, but they can displace oxygen and create a hazardous condition. When the refrigerant is detected, the BGS-RF-STD will operate ventilation equipment keeping the area safe. The detector has been factory calibrated for a number of commonly used refrigerants. Your unique requirement can be selected thru an internal (tamperproof) selector switch.

Key Features

- Microprocessor Controlled
- Protected Sensor
- Factory Calibrated
- Static Discharge Protection
- Low Voltage Wiring
- Power Loss Fail-Safe
- Corrosion Resistant Enclosure
- Complies with ASHRAE 15-1994

Flexibility

- Selectable Sensitivity Setpoint
- Adjustable Alert Time Delay
- Remote Alarm Hookup

Detectable Refrigerants

- R-11
- R-12
- R-22
- R-23
- R-113
- R-123
- R-134a
- R-141b
- R-142b
- R-152a
- R-500
- R-502

Typical Installations

- Refrigerant Storage Areas
- Supermarket Walk-In Coolers
- Food Packing Plants
- Cold Storage Facilities
- Refrigeration Machinery Rooms

Output Options

- 4-20 mA Current Loop
- Additional Alarm Relay
- 0-1 VDC Output
- 0-5 VDC Output
- 0-10 VDC Output



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Ratings

Input Voltage

24 VAC, 50/60 Hz. @ 28VA

Ambient Temperature Rating

Storage

-50°C to 120°C (-58°F to 248°F)

Operating

-15°C to 40°C (-5°F to 104°F)

Humidity

10% to 90% (noncondensing)

Enclosure

NEMA 1

Painted Steel

Output Relays - Alert Levels - Alarm

120VAC, 50/60 Hz.

5 Amp Resistive

250 VA Inductive

1/8 HP Motor

24 VAC, 50/60 Hz.

24 VA Inductive

Dimensions

Size

7 5/8"H x 9 1/4"W x 2 7/8"D

Weight

4 pounds

Recognitions

ETL listed

Mounting

This unit can only be mounted indoors in a dry location at a height not greater than 5 feet above floor level. Since refrigerant vapors are heavier than air, this unit should be as close to the floor level as possible. Having this unit close to the source of the refrigerant would provide for early detection and maintain an acceptable breathing level.

Unit Operation

The BRASCH refrigerant leak detector has been designed using state of the art components, which includes a microprocessor. This is essential to meet the growing demand for a reliable refrigerant leak detector. This detector has been designed to sense and respond to at least 12 different refrigerants. Once the unit detects a refrigerant leak, and the refrigerant is present for the selected time delay, the detector closes a set of relay contacts and the alert LED on the front panel will illuminate. The relay contacts can be used to power a fan, open a set of dampers, or actuate any preliminary remote alarm. The adjustable time delay is user selectable from 0 to 7 minutes in increments of 1 minute. The factory default setting is 0 minutes (this will result in an immediate response). If the refrigerant continues to be detected for 15 minutes, the alarm relay contacts close, the internal alarm

sounds, and the front panel alarm indicator turns on. The relay contacts could be used to turn on a remote alarm. The alert level can be altered from approximately 50 PPM to 800 PPM. The factory default setting is 250 PPM. With the use of a microcontroller, this detector can provide several options. The unit can connect to most energy management systems using the 4-20 mA current loop. 0-1 VDC, 0-5 VDC and 0-10 VDC outputs are also available. Another available option is an additional set of relay contacts that will turn on when the detector enters the alarm state. The internal audible alarm can be deactivated by pressing the alarm switch on the bottom of the unit. The alarm circuit is automatically reactivated for future alarm conditions.

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