

GROUP A1 REFRIGERANT LEAK DETECTOR WITH TWO CONTACT LEVELS



Features:

- Two contacts for warning and fan energization at the LOW or HIGH refrigerant leak levels.
- Rugged dust and corrosion resistant PVC enclosure with visible status indicators on the front cover.
- Provides early warning of refrigerant leaks in chiller and mechanical rooms.
- Fully electronic system with temperature compensation and a long life sensor, calibrated to the specific refrigerant required.
- Suitable for the control of emergency ventilation systems for personnel protection.

With increasing awareness concerning the hazards of refrigeration leaks, consultants, contractors and building owners have moved to install refrigerant leak detection equipment in new and existing chiller rooms. The ACME VOC-3 Refrigerant Leak Detector is designed to detect Group A1 refrigerants, used in the majority of chiller equipment installations. ASHRAE has also moved to impose a standard for refrigerant leak monitoring.

Some requirements of the ASHRAE Standard 15 "Safety Code for Mechanical Refrigeration" are:

- 1) Ambient air monitors for Group A1 refrigerants in machinery rooms.
- 2) An alarm to alert persons inside and outside of the machinery room that a leak has occurred resulting in high refrigerant ambient levels.
- 3) Route relief valves discharge headers and purge units outdoors, away from air intakes.
- 4) Install local exhaust to ventilate the workplace in the event that the air monitor alarm level is exceeded.

The ACME VOC-3 is a reliable and economical solution to ASHRAE 15 compliance.

The VOC-3 contains all the features for which ACME's other CO detectors have become known: a rugged enclosure, top quality electronics and automatic sensor decontamination.

For selected gas detection options, please see the reverse of this bulletin. For descriptions of other available ACME detection and control units, consult ACME or your local representative.

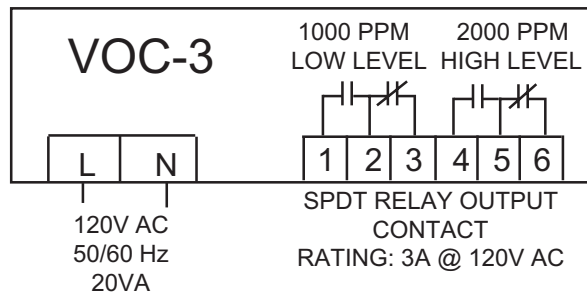
VOC-3 : Refrigerant Leak Gas Detector

Gases detected:	CFC or HCFC R-11, R-12, R-22 R-62, R-113, R-502, R140a R-134a & Ammonia
Sensor:	N-type metal oxide
Mounting:	Wall or column with brackets (supplied)
Unit dimensions:	152mmH x 152mmW x 101mmD (6"H x 6"W x 4"D)
Supply voltage:	120V AC (Also available 24 or 220V AC) 50-60 Hz, 20VA
Ambient Temp.:	10-40°C (50-100°F)
Dry control contacts:	2
Contact rating:	3A 120V AC 1PH
Contact relay 1:	Low Level leak (1000 PPM std.)
Contact relay 2:	High Level leak (2000 PPM std.)
LED indicators:	Power On, Low Level, High Level
Buzzer Spec:	75db@10 ft
Options:	Pneumatic sampling : Cat. No.: VOC-3-EN

Additional Volatile Organic Compounds Model No.: VOC-2

2 fixed contact levels at LOW and HIGH of the specific VOC.
Consult factory for alternate contact levels.
Wall mounted enclosure. Same dimensions as above.

Typical Wiring Diagram



Technical Data:

Principle of Operation

The ACME VOC-3 (Group A1) Ambient Refrigerant monitor is designed to signal a refrigerant gas presence in the space air when the leak reaches the "LOW LEVEL" - TLV setpoint (currently 1000 PPM). This level should alert the operating personnel and any supervisory system. It is not recommended to start the ventilation system at this level as this will make it more difficult to locate the source of the leak. When the refrigerant reaches the "HIGH LEVEL" setpoint 2xTLV (currently 2000 PPM), the VOC-3 signals a second alarm. At this point the ventilation should be started to reduce build-up in the room.

The ACME VOC-3 uses a semiconductor gas sensor designed to detect volatile organic compounds. The decrease of electrical resistance of the sensor as it gets exposed to gases or vapors is used as an electrical output signal for detection. Because of possibly long storage time before it is initially energized, allow one week for unit to reach optimum operating conditions. If the unit was de-energized for a couple of days, the time required to have the unit back in normal operation is only of a few minutes.

The ACME VOC-3 unit is packaged in a gasketed enclosure, suitable for wall mounting. There are no knobs or buttons accessible from the outside.

Typical specifications

Supply, install and connect at locations shown on drawings ACME VOC-3 (Group A1) Ambient Refrigerant Detection and Control Units. Units shall be fully electronic incorporating solid state circuitry with built-in temperature compensation, factory calibrated at LOW and HIGH levels. Provide SPDT control relay contacts for each level. Each unit shall include visual indication for Power "ON" and operating status. HIGH level shall activate an integral audible alarm. Unit enclosure shall be gasketed and made of corrosion resistant material. Power supply shall be 120V AC unless specified.

In the U.S.A.

ACME ENGINEERING PROD. INC.

Trimex Ind. Bldg., PMB #10

2330 State Route 11

Mooers, N.Y. 12958

Tel. : (518) 236-5659

Fax : (518) 236-6941

E-mail : info@acmeprod.com - Internet : www.acmeprod.com

In Canada

ACME ENGINEERING PROD. LTD.

5706 Royalmount Ave.,

Montreal, Quebec

H4P 1K5

Tel. : (514) 342-5656

Fax : (514) 342-3131



Represented by:

