

Refrigerant Leak Detection



IRLDS II

The IRLDSII can continuously monitor multiple areas for low levels of the CFC, HCFC, and HFC refrigerants most commonly used in commercial refrigeration systems. The system meets or exceeds all refrigerants of ANSI/BSR ASHRAE 15-1994.

Coverage: The IRLDSII has the standard ability to monitor 4 points, but maybe expanded to monitor up to 16 points. Each CPC System may contain multiple IRLDS IIs in order to meet site-specific needs.

Detector type: All detectors are non-dispersive infrared (NDIR)

Multiple refrigerant system: The IRLDSII software gas library allows each point to be selected to monitor any of the following gases: CFC: R11, R12, R113, R114, R502 HFC: R404a (HP62), R407a, R408a, R407c (AC9000), R134a, R410a (AZ20), R507 (AZ50), R508b (SUVA95) HCFC: R22, R123, R124, R500, R503, R401a (MP39), R402a (HP80), R402b (HP81), R409a, R23 HALON: 1301

Sensitivity: All gases 1ppm

Measuring range: All gases 0 to 1000 ppm

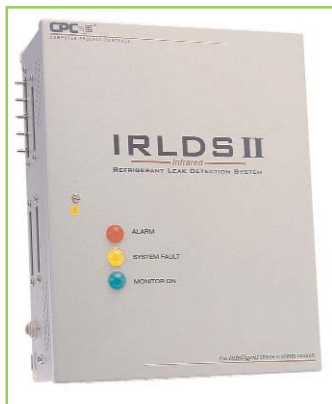
Accuracy: All gases ± 10 ppm from 0 to 100ppm $\pm 10\%$ of reading from 100 to 1000 ppm Special calibration note: All gases listed may be calibrated to $\pm 1\%$ of reading as a factory option. A 15 minute warm-up time is required for proper accuracy. Up to 5 new gases may be added to above referenced library and calibrated in the field—consult CPC

Front panel display: The IRLDSII has three (3) indicator lights. The green light will be "on" when the unit is operating properly. The red light will be "on" when any point is above its alarm setting. The yellow System fault indicator identifies a system fault, such as clogged sample lines



Benefits

- Multi-Point configuration allows you to monitor multiple refrigerant types with one unit
- Immediate notification sent to central controller when fuse is blown
- Cost effective solution for comprehensive refrigerant leak detection
- The combination of new infrared technology the most effective system to avoid nuisance alarms
- Optional display for IRLDSII allows you to install the system in virtually any application
- Easy integrates into existing stores in order to meet local building code compliance



Temperature drift: $\pm 0.3\%$ of reading/ $^{\circ}\text{C}$

Sampling mode: Automatic or manual

Max. monitoring distance: All points may be up to 500 ft. from the monitor

Alarms: Each IRLDSII has four SPDT alarm contacts – Three of them are designed for alarm levels, and the fourth is for system fault indication. Four SPDT alarm contacts are provided, three level alarms and one for system fault. Each of these three “level”, alarm contacts may be assigned either by concentration or by zone to any point or group of points. 5 AMP and 120 VAC user may define relays to be either latching or non-latching

Communications: Each IRLDSII has full two-way communication through RS485. The output is compatible with all CPC systems and remote the Refrigerant Monitor Interface. An RS232C port is also standard for either local or modem communication. Special configuration software is available at no charge

Operating temp: 32° - 122°F
(0° - 50°C)

Ambient humidity: 5% to 90% (non-condensing)

Size/Weight: 17" x 12" x 5.5" / 15 lbs.
May be wall or rack mounted

Power: 120VAC - 1Ph-60Hz;
230VAC - 1Ph-50Hz

Certification: UL/CE



The Refrigerant Monitor Interface provides remote programming, interrogation and display functionality to support the IRLDS II. The system design supports compliance with the refrigerant monitoring requirements of ANSI/BSR ASHRAE 15-1994.

Inputs: The Refrigerant Monitor Interface accepts one to four inputs via RS485 from up to four (4) IRLDS II units. It offers a wide variety of displays and point groupings. The Refrigerant Monitor Interface can fully program any connected IRLDS II.

Back lit LCD Display: The "Display" mode will show a measured point in PPM, as well as the point name (or default to an identification by channel and point).

Trend mode /Data logging: The user may select a graphical display of the PPM trend for any measured point. Each log may contain up to 100 data entries per point.

Alarm Indications: When an alarm is received, the channel display flashes, the red alarm light flashes, and an alarm signal is sent to the controller via RS485.

Input Fault Indication: When an input fault is detected the yellow light flashes, and the LCD display indicates any input fault that may occur and identifies the fault area.

Shared Monitoring: The Refrigerant Monitor Interface is able to operate in parallel with either Einstein or RMCC systems for the monitoring, programming, and interrogation of IRLDS II units.

Lockout Function: The Refrigerant Monitor Interface keypad may be disabled without affecting the ability of that device to observe and monitor outputs.

Maximum Distance from IRLDS II: The Refrigerant Monitor Interface may be up to 400 ft. from an IRLDSII

Communications: The Refrigerant Monitor Interface has full two-way communication to all IRLDS II's on the system via RS485. A second RS485 output is available for communication to any Einstein or RMCC unit. An RS232C communication port is also standard

- **Operating Temp:** 32° - 122°F (0° - 50°C)
- **Size / Weight:** 11"W x 10"H x 3"D / 5 lbs. Nominal
- **Power:** 120VAC - 1Ph-60Hz; 230VAC - 1Ph-50Hz
- **Mounting:** Wall mount
- **Certification:** UL/CE



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