QCC + 3 ART INFRARED REFRIGERANT MONITORING SYSTEM

Hotel Applications

Peace of mind. Guaranteed.

Continuous monitoring of refrigerant leaks in the mechanical / chiller room of hotels.

Hotels strive to be comfortable environments for their patrons, which includes among many things, maintaining appropriate temperatures throughout the facility. Typically, hotels have a mechanical equipment room where large chillers and pipes with refrigerant gas are tucked away to do their job cooling the establishment.

Chiller rooms should be continuously monitored in case leaks occur. Refrigerants can be toxic and in some cases flammable, deplete the ozone layer, cause global warming issues, and a cause concern for the health and safety of people. If gas leaks are detected early, unnecessary costs can be avoided such as, excess energy use, top ups to replenish refrigerants, preventable emergency service call fees and other expenses associated with inefficiencies in the air conditioning system.

Critical Environment Technologies Canada Inc. (CETCI)'s **ART Infrared Refrigerant Transmitter** is the solution. If a leak is detected, the relay in the **ART** will quickly switch off the air conditioner or turn on ventilation systems. If a central controller, such as a **QCC Quad Channel Controller** is used, the **ART** will send a signal back to the Controller to notify an alarm event has occurred. If multiple potential leak locations are of concern, using up to four **ART** transmitters connected to a **QCC** Controller will provide a complete leak detection system.

Critical Environment Technologies Canada Inc.
Unit 145, 7391 Vantage Way
Delta, BC, V4G 1M3, Canada
www.critical-environment.com

TF: +1.877.940.8741
T: +1.604.940.8741
F: +1.604.940.8745
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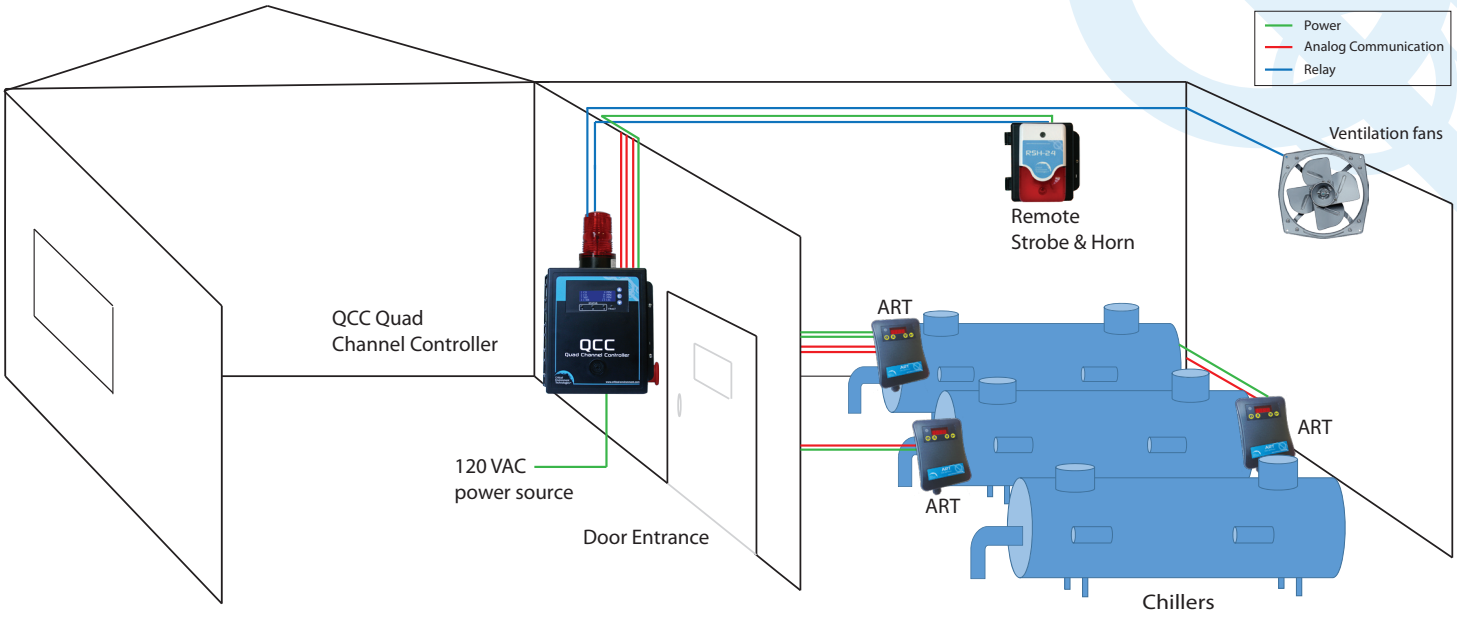
Hotel Applications

Typical Hotel Chiller Room Refrigerant Leak Monitoring System



The ART Infrared Refrigerant Transmitter should be placed in an area where a refrigerant leak is most likely to concentrate. Refrigerant gases are heavier than air and will concentrate closer to the floor and in areas with less air current. The ART transmitter should be mounted 10" to 18" off the floor so it is at an appropriate height for leak detection, accessible for routine calibration and not likely to come in contact with water from flooding or minor wash down during routine cleaning of equipment. For added protection, there is an optional splash guard available for the ART. If there are multiple chillers in the room, an ART transmitter should mounted as close as possible to each potential leak point. The QCC Controller is pre-programmed and field adjustable and can be connected to up to four ART transmitters through a 4-20 mA analog or Modbus RS-485 output signal. It has an audible alarm and 3 relays that can be configured to set off remote alarms and activate the exhaust ventilation system or other alarm procedures as appropriate when a leak is detected by one of the ART transmitters. The manual shut off switch on the QCC can be used to shut off the chiller equipment.

The QCC Quad Channel Controller should be mounted outside the chiller room, close to the door so the LCD display with the target gas levels is easily viewable prior to entering the room. It should be equipped with a top mounted strobe and a manual shut off switch (meets B52 code requirements). In addition, a remote visual and audible alarm device should be set up inside the chiller room and if there is another entrance to the room, a QCC-RDM Remote Display Module should be mounted outside the door with a remote strobe & horn combo. The QCC-RDM will display the same target gas levels information as the QCC, providing visual confirmation of the air quality inside the room from that entrance. The QCC may also be configured to interface with a Building Automation System (BAS) using Modbus® or BACnet® communication, which in turn can be used to trigger the mechanical ventilation equipment, shut down the chiller or other alarm procedures as appropriate.

A remote visual and audible alarm device such as the Remote Strobe & Horn (RSH-24VDC) should be set up inside the room.

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