QCC + 2 LPT-A REFRIGERANT MONITORING SYSTEM

Double Chiller Room Applications

Peace of mind. Guaranteed.

Continuous monitoring of refrigerants in mechanical rooms with two chillers.

In the event of a refrigerant leak in mechanical equipment rooms, early detection helps prevent dangerous health implications to occupants and reduces significant loss of refrigerant and excess energy costs. If a leak is detected, you want the peace of mind that comes with a properly installed refrigerant gas detection system.

Using Critical Environment Technologies Canada Inc. (CETCI)'s **QCC Quad Channel Controller** and two **LPT-A Analog Transmitters** is the solution. The placement of the two **LPT-A** transmitters inside the room provides continuous monitoring of potential leaks and their communication with the **QCC** Controller with a top mounted strobe and manual shut off switch mounted outside the room door provides a status of the air quality conditions inside the room prior to entry.

If a leak is detected an audible alarm will sound, the **QCC** display and **LPT-A** display (if enabled) will indicate an alarm condition and the designated relays will activate a preset response, such as turning on a remote alarm device, turning off the chillers, actuating the mechanical ventilation system and/or triggering another set response as required.

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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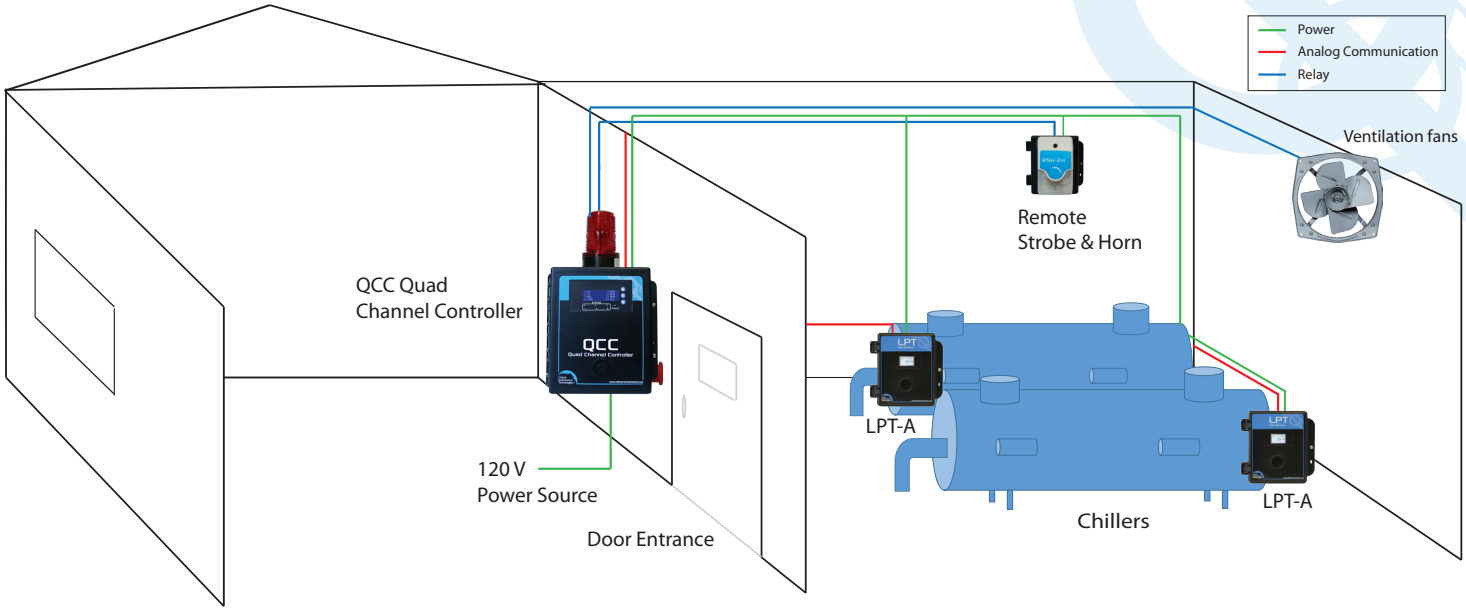
Double Chiller Room Applications

Typical Double Chiller Room Refrigerant Monitoring System



The two LPT-A Analog transmitters, each with an internal solid state refrigerant sensor should be placed covering the areas where a refrigerant leak is most likely to concentrate and where pooled refrigerant is likely to accumulate. Refrigerant gases are heavier than air and will concentrate closer to the floor and in areas with less air current. Each LPT-A should be mounted 10" to 18" off the floor so it is at an appropriate height for detection and accessible for routine calibration and maintenance. The LCD display on both LPT-A transmitters can be enabled or disabled, as can the audible alarm. Gas measurement readings will be transmitted to the QCC Quad Channel Controller and will be viewable on its display.

The QCC Quad Channel Controller should be mounted outside the mechanical room entry door and be equipped with a top mounted strobe and manual shut off switch (meets B52 code requirements). It will interface to the two LPT-A transmitters inside the room and will display the target gas levels for viewing prior to entering the room. The QCC is pre-programmed and field adjustable. Functions that can be set include relay assignment, time delays, logic control, sensor types and ranges, alarm set points, etc. There is a 4-line x 20 character backlit LCD display that actively scrolls through the programmed channels and displays the gas name, concentration and alarm status. The QCC should be configured to set off alarms and activate the exhaust ventilation system, shut down the chillers or other alarm procedures as appropriate when a leak is detected. The QCC can accept inputs from up to 4 analog and/or digital transmitters using Modbus® RS-485 digital communication. (BACnet® MS/TP output is available if required to communicate with a BAS).

Remote visual and audible alarm devices such as the Remote Strobe & Horn (RSH-24VDC) should be set up inside the room and if there is another entrance to the room, a QCC-RDM Remote Display Module should be mounted outside the door of that entrance, to provide visual confirmation of gas level readings prior to entering the room.

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