

# Refrigerant Code References to Gas Detection (CSA and ASHRAE)

This is a general reference for discussion purposes only. Refer to your local codes for specific requirements.

## CSA B52-05

### **6.2.3 Refrigerant Vapour Detector**

For all refrigerants, except ammonia, the detector shall:

- be located in an area where refrigerant from a leak is most likely to concentrate.
- actuate at a value not greater than the TLV/TWA
- sound an audible alarm
- initiate mechanical ventilation

*"In certain situations, more than one detector can be necessary"*

### **6.2.4.3 Explosion Protection**

-combustion equipment may be installed in the same machinery room when a refrigerant vapour detector is employed to shut down combustion equipment

### **6.2.5.4 Fan Switches**

- shall be accessible inside and outside the machinery
- shall be capable of starting but not stopping the ventilation

### **6.3 (h),(i) Class T machinery rooms**

- remote pilot control outside the machinery room for shutting down the equipment
- vapour detector shall initiate a supervised alarm for corrective action

### **8.4.1 (d) Maintenance**

- shall be tested in accordance with manufacturer's instructions
- maximum interval not to exceed one year
- test shall initiate audible, visible and ventilation

## ASHRAE Standard 15-2007

### **8.11.2.1 Detector**

- located where refrigerant from a leak will concentrate
- actuate an alarm and mechanical ventilation at a value not greater than TLV-TWA
- annunciate visual and audible inside the room and outside each entrance
- alarms shall be manual reset, with reset location inside machinery room

### **8.12 (i) Switches (Special Requirements based on type of machinery room)**

- remote control of mechanical equipment provided outside machinery room for shutting down the equipment in an emergency
- ventilation fans shall have a control switch outside the door

### **11.6.3 Periodic Tests**

- detectors, alarms, and ventilating systems shall be tested in accordance with manufacturer's specification

## ARJAY Model 4200-IR

The Arjay Model 4200-IR is designed in accordance with, and provides the necessary interlocks and switches to meet all of the above references to both CSA and ASHRAE.