Critical Environment Technologies™

Hotel Applications

Peace of mind. Guaranteed.

Continuous monitoring of refrigerant gas leaks in hotel rooms.

Air conditioning systems for hotel rooms can potentially be dangerous if leaks occur. Refrigerants can be toxic and in some cases flammable, deplete the ozone layer, cause global warming issues, and a concern for health and safety of people in the air conditioned spaces. Refrigerant gas leak detection systems need to be in place to continuously monitor the potential risk of leaks occurring.

Critical Environment Technologies Canada Inc. (CETCI)'s **AST-SR2** series of analog, refrigerant gas detector is the solution. If a leak is detected, the relay in the AST-SR2 will quickly switch off the air conditioner. If a central controller or direct digital controller (DDC) is used, the AST-SR2 will send a signal back to the control device to notify an alarm event has occurred.

As a result of detecting gas leaks early, one can reduce additional costs due to inefficiencies in air conditioning systems, excess energy cost, top ups of refrigerants, cost of emergency service calls to find, detect and repair leaks, and prevent danger to the room occupants.

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AST-SR2

Analog Refrigerant Transmitter

The rugged, reliable AST-SR2 analog, refrigerant transmitter monitors for refrigerant leaks. Once a leak is detected, the relay will quickly shut off the air conditioner. Alternatively, if a controller or DDC is used, the AST-SR2 will send a signal back by converting the raw signal from a sensor into a useful output.

AST-SR2 transmitter series comes with an integral or remote sensor option. It features 4 - 20 mA or 0 - 10 VDC linear output signals, automatic thermal resetting fuse, RoSH compliant circuit boards, and LED indicators for power and open loop.

Automated calibration and other maintenance procedures are simple, easily performed in the field, and required once per year.

For hotel room applications, refrigerant sensors should be mounted near an air conditioner coil to provide the desired level of protection. With a remote refrigerant sensor, it makes it easier to place the sensor as close to the air conditioning coil as possible. Another good practice is to have one sensor for every 5,000 - 7,000 ft² and / or one sensor for each air conditioning unit within the space.

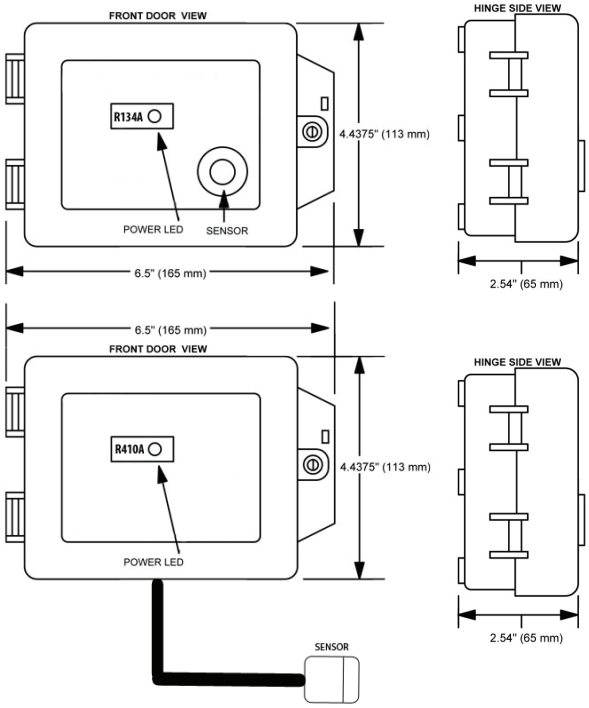
AST-SR2-R (integral sensor)

AST-SR2-RZ (remote sensor)

KEY FEATURES

» Quick response
» Integral or remote sensor option
» 4 - 20 mA or 0 - 10 VDC linear output signal
» LED indicators for power and open loop
» RoSH compliant circuit boards
» Temperature compensation
» Automatic thermal resetting fuse
» Automated calibration procedure
» C-Tick certified

TECHNICAL DRAWING



WIRING

24VAC
24VAC or 24VDC POSITIVE
24VDC NEGATIVE
SIGNAL
N/C - LOW RELAY (DRY CONTACT)
COM - LOW RELAY (DRY CONTACT)
N/O - LOW RELAY (DRY CONTACT)

TECHNICAL SPECIFICATIONS

SENSOR	
Type	Temperature compensated, non-specific, solid-state refrigerants: R12, R22, R134A, R401A, R402A, R404A, R407C, R410A, R422A, R422D, R438A, R507
Sensor Life Span	Approximately 5 years
Calibration	1 time per year
Range	0 - 2,000 ppm *calibrated to the desired refrigerant gas*
Accuracy	± 10% of measured signal (above 35 ppm)
Cross Sensitivity	Many other gases
Mounting	Heavier than air, near air conditioner coil

MECHANICAL	
Enclosure	General purpose PVC
Weight	255 g (9 oz)
Size	4.4" x 6.5" x 2.5" (113 mm x 165 mm x 65 mm)

ELECTRICAL	
Power Requirement	16 - 28 VAC or 18 - 30 VDC
Current Draw	Approximately 80 - 120 mA
Outputs	Linear 4 - 20 mA or 0 - 10 VDC signal
Wiring	18 - 20 gauge wire VDC three-conductor shielded, VAC four-conductor shielded
Fuse	Automatic resetting thermal overload fuse *reset capability to 500 times*
Relay	Dry contact SPDT, 2 amps @ 28 V
Signal	Fail signal drops to 0 mA if sensor is removed or burnt out

ENVIRONMENTAL *(sensor dependant)*	
Operating Temperature	0°C to 40°C (32°F to 104°F)
Humidity	0 - 90% RH non-condensing

CERTIFICATION	
C-Tick	Certified

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