IVA301EM

Refrigerant Gas Leak Detection Sensors & Controllers

INTEC CONTROLS

IVA301EM

The IVA301EM Module acts as a controller for up to four remote refrigerant sensors. Easily configured to meet ASHRAE 15, B-52 and International Mechanical Code requirements, the IVA301EM is commonly used to optimize gas detection in mechanical and chiller rooms. A full complement of refrigerant and combustible sensors, horns, strobes and remote panels provide added flexibility to suit a variety of gas detection system solutions.

Key Features and Benefits

- Industry-leading infrared sensing technologies
- Able to operate with up to four remote sensors at a time
- Various refrigerant sensors available to simultaneously detect different gases
- Robust and reliable RS-485 MODBUS communication
- Four fully programmable relays
- Three 24 Vdc alarm outputs and up to four 4-20 mA outputs
- Three alarm levels with built-in visual indicators and audible alarm
- Easy to read LCD display
- Auto-diagnostic capabilities
- Convenient stand-alone or network operation
- Cost-effective solution for installation in hazardous locations

Ordering Information

Standard Unit includes 24 Vdc alarm outputs (3), relays (4), 4-20 mA outputs (4), network

IVA301EM	Standard unit
IVA301EM-RFSA	Standard unit with strobe light and horn

Infrared Sensors

IVA301IRFS-xxx	Refrigerant gas sensors (xxx): R11, R12, R22, R123, R125, R134A, R227, R245A, R404A, R507, R410A

Options

I-EBG1	Emergency break glass station
.../G	Metal guard (sensor only)
Annunciator Panel	Includes 24 Vdc alarm outputs (3) and relays (4)
IVA301EMRP	Remote Panel
IVA301EMRP-RFSA	Remote Panel with strobe light and horn

ISO 9001:2000 CERTIFICATION Intertek

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Power Requirement:
22-27 Vac, 29-38 Vdc, 1.5A max.

Distance Between Controller and Sensor:
IVA301IRFS Up to 200 ft. / 60.9 m

Visual Indicators:

Normal Operation:	Green LED
Alarm Level 1:	Red LED
Alarm Level 2:	Red LED
Alarm Level 3:	Red LED
Signal Tx:	Blinking amber LED
Failure Indication:	Yellow LED

ASHRAE No 15-2001 Mechanical Standard and B-52 Code Compliance

The ASHRAE and B-52 security standards have been established to minimize risk and protect the safety of mechanical room personnel and the environment at large. Available in a special configuration, the IVA301EM Module has been arefully designed to meet and even exceed these rigorous standards. The IVA301EM can be configured to offer:

- automatic fan, horn and strobe activation
- manual fan activation
- non-latching relay for manual alarm recognition
- silence key for manual horn deactivation
- built-in 24 Vdc outputs for horn operation
- 2 breakglass switch accessories for manual alarm activation

Alarm Levels:
3 with high and low setpoints

Outputs:
4 DPDT relays (alarms and/or fault), buzzer
Three 24 Vdc, 250 mA (per output)
Four 4-20 mA outputs
RFSA option: 24 Vdc red strobe & 105 dBA horn

Sensing Technology:
Refrigerants: Infrared

Sensor Accuracy:
Accuracy: ±3%

Gases Detected	Detection Range
IVA301IRFS	
Dichlorotrifluoroethane (R123)	0-1000 ppm
Dichlorodifluoromethane (R125)	0-1000 ppm
Trichlorofluoromethane (R11)	0-1000 ppm
Dichlorodifluoromethane (R12)	0-1000 ppm
Chlorodifluoromethane (R22)	0-1000 ppm
Tetrafluoroethane (R134a)	0-1000 ppm
Heptafluoropropane (R227)	0-1000 ppm
Pentafluoropropane (R245A)	0-1000 ppm
Mixture of R125, R143A, R134A (R404A)	0-1000 ppm
Mixture of R125, R143A (R507)	0-1000 ppm
Mixture of Difluoromethane, Pentafluoroethane (R410A)	0-1000 ppm

Relay Output Rating:
5 A, 30 Vdc or 250 Vac (resistive load)

Operating Temperature Range:
Refrigerant: 32 to 104°F / 0 to 40 °C

Operating Humidity Range:
0-95% RH, non-condensing

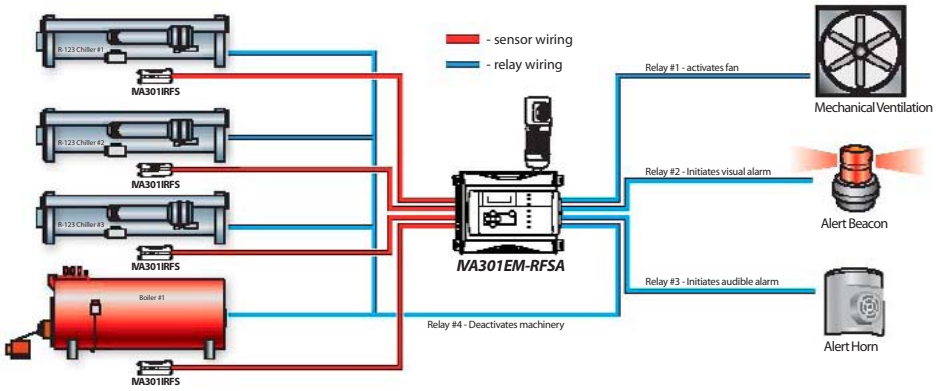
Ratings and Certifications:
Certified to: C22.2 No 205
Conforms to: Standard 1244

General Specifications

Size:	11.02 x 7.99 x 2.73 in. 28 x 20.3 x 7 cm
Weight:	2.6 lb. / 1.2 kg

IVA301IRFS - Refrigerant sensor

Typical refrigerant and combustible monitoring system



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