Vulcain

Division of BW Technologies

1 800 563-2967

Infrared Refrigerant Gas Transmitter

VA301IRF

The VA301IRF Vulcain's award-winning, electronic self-calibrating IR sensing technology provides stable and accurate monitoring of refrigerant leaks far exceeding ASHRAE 15 and International Mechanical Code requirements.

The VA301IRF modular design permits for real time remote sensing at distances of up to 100 feet without the need for service prone pumps and other mechanical moving parts. The sensing module functions on a diffusion basis and communicates concentration rates back to the transmitter on a RS-485 communication bus, eliminating issues related to sample draw systems such as dwell time.

The VA301IRF's transmitter module provides remote annunciation at a glance through its backlit LCD and LED alarm status display.

This highly customizable product allows the tailoring of the units features to specific projects. The units options include: analog outputs, modbus, three relays, strobe light and horn. The unit is also fully compatible with the VA201C & VA301C Controller.

- Vulcain's award-winning technology
- Stand-alone or Network operation
- Three levels of alarm
- Fail-safe relays
- Visual indicators
- Easy calibration
- Backlit LCD display and keypad
- Remote sensor up to 100 feet from transmitter
- Optional
  - 4-20mA output
  - Three alarm relays
  - Modbus communication
  - Audible alarm
  - Vulbus communication

Ordering Information

VA301IRF-xxx* **Refrigerant gas transmitter**
*gas to be detected

Packages:

RFNET	Network configuration
RFNETC	Network, 4-20mA
RFNETCAO	Network, 4-20mA, Audible Alarm, 3 Alarm Relays
RFNETCAF	Network, 4-20mA, Audible Alarm, 2 Alarm + 1 Fault Relay
RFC	4-20mA output
RFCAO	4-20mA, Audible Alarm, 3 Alarm Relays
RFCAF	4-20mA, Audible Alarm, 2 Alarm + 1 Fault Relay
RFO	3 Alarm Relays
RFF	2 Alarm + 1 Fault Relay

Options:

REF/Guard	Metal Guard (sensor only)
RFS	Built-in Strobe Light (Red)

Protecting your health and your environment.

VA301IRF
Infrared Refrigerant Gas Transmitter

VA301IRF SPECIFICATIONS

Gases Detected:	R-11, R-12, R-22, R-123, R-125, and R-134a (other mixes also available)
Sensing Technology:	Vulcain's award-winning technology
Measurement Range:	0-1000 ppm
Resolution:	1 ppm
Response Time:	60 sec.
Cold to Start:	10 minutes
Optional Outputs:	4-20 mA DPDT relays RS-485
Optional Audible Alarm:	65 dBA at 3 ft. / 1 m
Display:	Backlight LCD, LED Alarm indicators
Relay Output Rating:	5A, 30 VDC or 250 VAC (resistive load)
Power Requirement:	17-27 VAC, 24-38 VDC, 24 VDC @ 600 mA
Operating Temperature Range:	32 °F to 100 °F / 0 °C to 40°C
Operating Humidity Range:	0-95% RH, non-condensing
Transmitter Enclosure:	NEMA 4X Polycarbonate - ABS
Sensor Enclosure:	Polycarbonate - ABS
Transmitter Size:	11.02 x 7.99 x 2.76 in. (28 x 20.3 x 7 cm)
Transmitter Weight:	2.26 lbs. / 1.02 Kg
Sensor Size:	11.02 x 4.02 x 2.48 in. (28 x 10.2 x 6.3 cm)
Sensor Weight:	1.33 lbs. / 603 gr.

The VA301IRF series is fully compatible with the VA301C controller

VA301C TECHNICAL SPECIFICATIONS

Normal Operation:	Green LED
Alarm Level 1:	Red LED
Alarm Level 2:	Red LED
Alarm Level 3:	Red LED
Signal Tx:	Blinking amber LED
Signal Rx:	Blinking green LED
Failure Indication:	Yellow LED
User Interface:	Dot Matrix display and keypad
Network capacity:	Three 32 Modbus zones or Two 16 Vulbus zones, one 32 Modbus zone
Communication (length off lines):	Up to 2000 feet (600 m) T-Tap: 65 feet (20 m) max per T-Tap. 130 feet (40 m) max for all T-Tap combined
Relay Output Rating:	5 A, 30 VDC or 250 VAC (resistive load)
Alarm Levels:	Multiple with high and low setpoints
Time Delays:	0, 30 sec., 45 sec., 1-99 minutes before and after alarm
Outputs:	4 DPDT relays (alarms and/or fault), buzzer
Operating Humidity Range:	0-95% RH, non-condensing
Operating Temperature Range:	-4 °F to 122 °F (-20 °C to 50 °C)

GENERAL SPECIFICATIONS

Size:	11.02 x 7.99 x 2.76 inches 28 x 20.3 x 7 cm
Weight:	2.4 lbs. (1.1 kg)
Enclosure:	NEMA 4X Polycarbonate - ABS
Power Requirement:	17-27 VAC, 24-38 VDC, 500 mA
	Certified to UL and CSA standards

DUE TO ONGOING RESEARCH AND PRODUCT IMPROVEMENT, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

1. Large backlight LCD display
2. Visual indications
3. Programming keypad
4. Infrared sensor

VA301IRF transmitter

1. Programming keypad
2. Visual indicators
3. LCD display

VA301C controller

Locally Distributed by:

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ISO 9001:2000 CERTIFICATION Intertek