

RD-VRF Refrigerant Gas Detection Specification

Gas Detection Equipment

- A. Refrigerant VRF Detector RD-VRF: Single, dual-level detector using NDIR sensors with 8-year minimum life; suitable over a temperature range of 14°F to 122°F (-10°C to 50°C); with 2 alarm levels at 1,000 and 2,000 ppm
 - 1. Manufacturer:
 - a. MACURCO (Basis of Design)
 - 2. Field Calibratable
 - 3. User Interface: Status Indicating LED and magnet for buzzer silence and field calibration
 - 4. Warranty: 2 Year Limited
 - 5. Internal Relays
 - a. Relay 1 (1,000PPM) - 1A @ 30VDC, SPDT
 - b. Relay 2 (2,000PPM) - 1A @ 30VDC, SPDT
 - 6. User Adjustable Settings with the RD-VRF Communicator
 - 7. Range: 0-5,000 ppm
 - 8. MODBUS RTU Output
 - 9. Ambient Humidity: 10-90% non-condensing
 - 10. Low Level Alarm: Refer to controls drawings
 - 11. High Level Alarm: Refer to controls drawings

- B. Provide all horns and strobes as indicated on the drawings. Controls contractor to provide all relays and interconnect wiring for horn/strobes, BMS integration, and appliance shutdown.

- C. Installation shall be completed by controls contractor or mechanical contractor



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RD-VRF Refrigerant Detector

Overview

The Macurco RD-VRF Refrigerant Gas Detector is designed to provide continuous refrigerant monitoring in VRF applications that pose an oxygen depleting environment due to a leak in refrigerant gas. This is an essential tool providing advanced warning via low detection alarming and notification locally or via a Building Management System (BMS).

Specifications

Size:	5.11”(H) x 5.11”(W) x 2.36”(D)
Weight:	0.5 lb. (8 oz.)
Enclosure:	Aesthetically pleasing low profile White Polycarbonate, IP42
Operating Temperature:	14°F to 122°F (-10°C to 50°C)
Operating Humidity:	0% to 95% RH non-condensing
Status Light Indicators:	Green Power, Red Alarm, Alternating Amber/Red Fault

Inputs	Power Input:
Low Voltage Option:	12-24VDC or 24VAC
Line Voltage Option:	90-240VAC

Outputs	
Relay Rating (2):	1A @ 30VDC, SPDT
MODBUS:	Modbus RTU RS-485
Audible indicator:	Buzzer, 83 dBA at 10ft

User Interface

Magnet:	Zero Calibration, Span Calibration, Buzzer Silence
Status Lights:	Green Power, Red Alarm, Alternating Amber/Red Fault
Buzzer:	Buzzer, 90 dBA at 1ft
Dipswitch:	Allows for buzzer silence, relay control functionality

Quality

Quality: Approvals: EN 61000-6-3:2007 + A1:201; EN 50270:2015, IEC 60335-2-40Annex LL, EN 378-3, EN 50676 and EN 14624, ISP5149-3, REACH/RoHS, CE Mark

Monitor manufacturer must be certified to ISO 9001 or higher