

RS VRF Range

VRF REFRIGERANT GAS DETECTORS



BLANK VERSION

LED VERSION

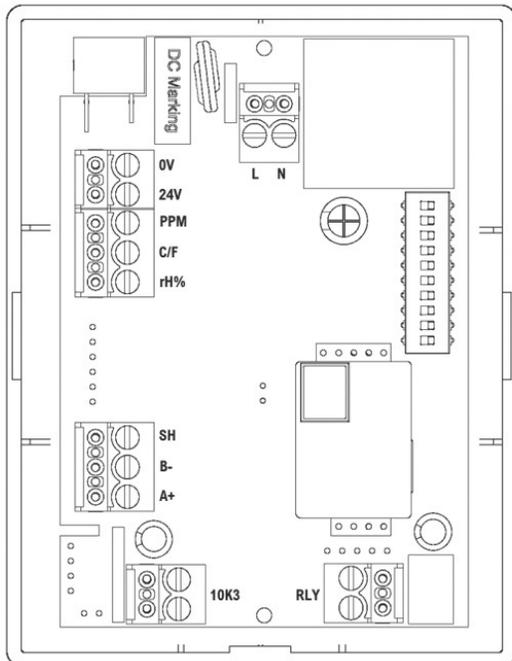
Product Overview:

The S&S Middle East RS, our cutting-edge Refrigerant Gas Sensors designed for use with VRF (variable refrigerant flow) systems. Designed for a diverse array of environments spanning residential, commercial, and light industrial sectors. Engineered with precision and reliability in mind, our detectors ensure unparalleled performance and safety in spaces such as hotel rooms, apartments, food retailers, and offices. Including Digital RS-485: BACnet MS/TP & Modbus RTU communication protocols.

Key Features:

- Digital RS-485: BACnet MS/TP communication protocols
- 230V or 24VAC/DC Power Input
- 1 x 0-10V Output Signal
- In-Built Audible Alarm (can be disabled in the field)

Circuit Board Diagram:



CONNECTION	LABEL	TERMINATION
230V AC IN	POWER LINE IN	L (Line)
		N (Neutral)
24V AC/DC INPUT	24VIN	+24V
		0V (Common GND)
		PPM (RF Sensor O/P)
ANALOG OUT/P	+10V OUT	
DIGITAL OUT/P	RS-485	A+
		B-
		SH (Shield)
THERMISTOR	10K3	(No Polarity)
VFC RELAY	RLY 70mA	(Open/Close Circuit)

NOTE: Connections depend on Model.

Technical Specifications

Mechanical

Mounting	Wall Mounted - Indoor Use Only
Entry	1" DIA Rear Entry and Snap offs for side trunking
Size (W x H x D)	Blank & LED - 3.38" x 4.48" x 0.98" / 86mm x 114mm x 25mm
Weight	0.15kg
Enclosure	ABS UL Flame retardant - IP40

Electrical

24V AC/DC Power Rating	12-24VDC (11-32 VDC) / 24VAC, (20-27 VAC) 50-60Hz
110VAC Power Rating	Nominal 230VAC, (90-250V AC), 50-60H
Internal Fuse	Resettable PPTC 230VAC, 400mA
Communication	127 Units Max
Power Consumption	1.5W Max

Environmental

Operating Temperature	14°F to 122°F / -10°C to 50°C
Storage	32-86°F / 0°C to 30°C
Room Humidity	0 to 95% RH (continuous) Non-Condensing
Atmospheric Pressure	70 to 110Pa
Altitude	<9500ft / 2900m
Installation Cat (110V Voltage)	II (Class 2) Pollution Degree 2
Installation Cat (24V Voltage)	III (Class 3) Pollution Degree 2

Inputs / Outputs

Digital Outputs	BACnet MS/TP or Modbus RTU (Parity: None Data bit: 8bit Stop bit: 1)
Analog Outputs	1 x 0-10V Output

Cable Spec

Power	22 - 24 AWG
Analog Output	22 - 24 AWG

User Interface

Language	English
Optional Display	2.8" TFT
Indication	Green: Power (OK) / Yellow: Warning (Pre-Alarm) / Red: Danger (Alarm)

Safety & EMC

Safety	IEC 61010-1
Electromagnetic Compatibility	FCC
Compliance	CE, EMC, RoHS, REACH and WEEE Compliant
Sensor Agency Approvals	UL Recognized Component for ANSI/UL-2034, UL-2075

Refrigerant Sensor Specification (ppm)

Diffusion Type	NDIR Dual Beam
Technology Response:	t90<30s
Warm Up Time:	~1 Minute @ 77°F
Accuracy:	± 15% of applied concentration
Lifespan:	10 Years MTBF
Resolution:	50ppm
Long Term Zero Stability	+3% of FS range/year

Model Number:

The model numbers for the RSVRF range detectors will vary depending on the refrigerant that is being detected for and if the unit is blank or has an LED.

RSVRF - R32-* - ** - ***

*** 24V or 230V**

**** Bacnet or Modbus**

***** Blank or LED**