

RSVRF Range

VRF REFRIGERANT GAS DETECTORS



BLANK VERSION

LED VERSION

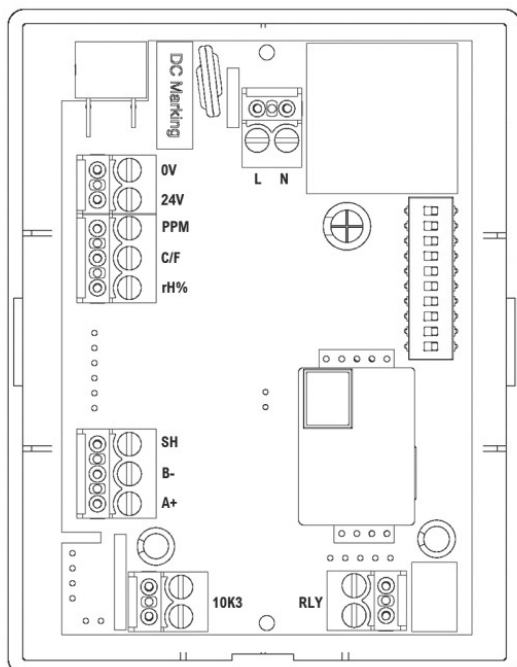
Product Overview:

The AGS Controls RSVRF, 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 communication protocols.

Key Features:

- Digital RS-485: BACnet MS/TP communication protocols
- 110V or 24VAC/DC Power Input
- 1 x 0-10V Output Signal
- Methane and R400 Blends: R1234yf / R1234ze / R134a / R32 / R404a / R407c / R410a / R454a / R454b / R454c / R455a (Others on request)
- In-Built Audible Alarm (can be disabled in the field)

Circuit Board Diagram:



| CONNECTION | LABEL | TERMINATION |
|-----------------|---------------|----------------------|
| 110V AC IN | POWER LINE IN | L (Line) |
| | | N (Neutral) |
| 24V AC/DC INPUT | 24V IN | +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 |
| Entry | 1" DIA Rear Entry and Snap offs for side trunking |
| Size (W x H x D) | Display Screen - 3.38" x 4.48" x 1.3" / Blank & LED - 3.38" x 4.48" x 0.98" |
| Weight | 2.31lb |
| 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 110VAC, (90-250V AC), 50-60H |
| Internal Fuse | Resettable PPTC 110VAC, 400mA |
| Communication | 127 Units Max |
| Power Consumption | 1.5W Max |

Environmental

| | |
|---------------------------------|-----------------------------------------|
| Operating Temperature | 14°F to 122°F |
| Storage | 32-86°F |
| Room Humidity | 0 to 95% RH (continuous) Non-Condensing |
| Atmospheric Pressure | 70 to 110Pa |
| Altitude | <9500ft |
| 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 (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

| | |
|------------------|-----------------------------------------------------------------------|
| Lanugage | 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 |

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 |