

AireShield Refrigerant Gas Detection Specification

Gas Detection Equipment

1. The Macurco AireShield – refrigerant product family is a complete product line with tremendous flexibility for detecting various refrigerants. The NDIR sensor technology with temperature compensation allows for the best accuracy while minimizing false alarms giving the user a low cost of ownership over its long life. Regardless of the application, this versatile detector exceeds code and compliance while delivering easy installation, maintenance, and commissioning through smart sensor technology, providing an array of events back to the user. This long-life detector will ensure your application is running safely at all times.
 2. Manufacturer:
 - a. MACURCO (Basis of Design)
 3. Gas Type:
 - a. Engineer Specify: EX. Refrigerant (R410A)
 - b. Available Options: Ammonia, R-22, R-32, R-123, R-125, R-134a, R-143a, R-227ea, R-404a, R-407a, R-407c, R-407f, R-410a, R-417a, R-422a, R-424a, R-427a, R-434a, R-438a, R-449a, R-450a, R-452a, R-452b, R-454a, R-453a, R-454b, R-454c, R-455a, R-507, R-513a, R-600, R-744, R1233zd, R-1234yf, R-1234ze, SF6
 4. Field Calibratable
 5. User Interface: Status Indicating LED's, 4 Button Interface, Bluetooth App, Buzzer
 6. Warranty: 2 Year Limited
 7. Internal Relays
 - a. Relay 1 5A SPDT
 - b. Relay 2 0.5A SPST
 8. Horn/Strobe Output: 24VDC
 9. User Adjustable Settings with on board buttons or Bluetooth App
 10. Range: Various based on sensor type and gas type
 11. Analog Output (2-10mA, 4-20mA), MODBUS RTU
 12. Ambient Humidity: 0-95% non-condensing
 13. Low Level Alarm: Adjustable
 14. High Level Alarm: Adjustable
- A. 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.
- B. Installation shall be completed by controls contractor or mechanical contractor

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AireShield Refrigerant Detector

Overview

The Macurco AireShield – Polar Series refrigerant product family is a complete product line with tremendous flexibility for detecting various refrigerants. The NDIR sensor technology with temperature compensation allows for the best accuracy while minimizing false alarms. Regardless of the application, this versatile detector exceeds code and compliance while delivering easy installation, maintenance, and commissioning through smart sensor technology, providing an array of events back to the user. This long-life detector will ensure your application is running safely at all times.

Specifications

Size:	8.25”(H) x 5.75”(W) x 2.625”(D)
Weight:	1 lb. (16 oz.)
Enclosure:	NEMA4X/IP65 enclosure
Operating Temperature:	-40 to 140°F (-40 to 60°C) Enclosure, see chart for sensor ranges
Operating Humidity:	0% to 95% RH non-condensing
Status Light Indicators:	Various colors depending on Status
Inputs	
Power Input:	24VDC or 24VAC
Low Voltage Option:	
Outputs	
Relay Rating (2):	5A SPDT, 0.5A SPST
Horn/Strobe:	24VDC
MODBUS:	Modbus RTU RS-485
Visual indicator:	Multicolor LED's
Audible indicator:	Buzzer, >90 dBA at 10ft
Remote Sensors:	Up to 2, 150ft distance from main transmitter using RS-485 wire

User Interface

Buttons:	4 Buttons
Bluetooth:	Android/IOS Connections
Magnet Cal-Hood:	Zero Calibration, Span Calibration
Status LED's:	Various: Normal, Warning, Alarm, Bluetooth, Calibration
Buzzer:	Buzzer, >90 dBA at 10ft

Quality

Quality: Monitor manufacturer must be certified to ISO 9001 or higher