



Diffusion design sensor that allows all points of detection to be monitored continuously

Manning AirScan™ iR sensor/transmitter



Refrigerant Specific

- Rapid response to refrigerants including R-404a, R-22, R-507 or R-134a
- Internal monitoring of 4/20 mA loop circuitry continuously

Diffusion-Design Sensor

- Has no moving parts and doesn't require pumps or filters
- All points of detection can be monitored continuously at an affordable cost

Versatility

- Can be used with any Honeywell Analytics readout
- Standard range of 0-3,000 ppm, can be rescaled for lower trip points
- Provides a linear output of 4/20 mA as a function of refrigerant concentration
- Simple, real-time calibration eliminates maintenance downtime
- Automatically adapts to fluctuating temperatures

Long-Lasting Performance

- Unique internal reference channel compensates for dust particles, source degradation, humidity and temperature fluctuation, food odours, chemical cleaners, etc.

ATMOS™ Technology

- Allows for operation down to -60°F and in condensing humidity environments or during washdown
- Automatically adapts to its environment and provides accurate and reliable performance under the harshest conditions

SensorCheck™ Technology

- Checks operating parameters of sensors and sends a notification output signal if an anomaly is identified
- Tests the sensor every 24 hours for electrical viability
- Indication can be detected by a Manning gas monitor or PLC

Housing

- High-mass metal bench provides structural and thermal stability and greater immunity to vibration
- Superior EMI/RFI shielding

The Manning AirScan™ iR sensor responds to refrigerants over the range of 0-3000 ppm and features SensorCheck™ technology that continually monitors sensor performance.

The Manning AirScan™ iR infrared sensor is an affordable microprocessor-based sensor that is selective to refrigerants and, because of its stabilized design platform, will provide years of service and will maintain the highest level of accuracy and reliability. This highly versatile sensor features SensorCheck™, a unique technology that continuously monitors sensor performance that enables it to provide worry-free performance

throughout the life of the sensor. A true "diffusion" design sensor, the Manning AirScan™ iR sensor does not require either pumps or filters and allows all points of detection to be monitored perpetually, unlike sample draw systems. The versatile sensor is housed in a high mass metal bench structure that enables thermal stability and freedom from vibration.

Applications

- Banana and Produce Rooms
- Beverage Plants
- Chemical Plants
- Confined Space Entry
- Food Processing
- Gas Bottling Plants
- Ice Rinks
- Product Coolers
- Rack Houses
- Refrigeration Systems
- Supermarkets
- Wineries



Technical summary



General Specification	
Use	Infrared (diffusion) type sensor that works in conjunction with any Honeywell Analytics Manning readout or alarm unit. This sensor is selective to refrigerants including R-404a, R-22, R-507 or R-134a. Can sense refrigerants over the range of 0-3,000 ppm and can be re-scaled to 0-500 if lower trip points are needed.
Common Operation	
Gases Monitored	R-404a, R-22, R-507, R-134a
Gas Sampling	Diffusion method with no moving parts, real time continuous monitoring of all points
Output	Linear 4/20 mA output into a load resistor of 500 ohm maximum
Accuracy	+/- 3% full scale
Repeatability	+/- 1% full scale
Operational	
Humidity	0-100% RH (condensing)
Operating Temperature	-40°C to +60°C / -60°F to +140°F
Storage Temperature	-28°C to +60°C / -20°F to +140°F
Common Module	
Cable Recommendation	Three conductor, stranded shielded cable with drain wire, all enclosed in a vinyl jacket. For cable runs up to 200 feet, use 18# AWG (Belden #8770 or equivalent). For cable runs up to 1,000 feet, use #16 AWG (Belden #8618 or equivalent).
Power Source	24 Volts DC regulated, 1.2 amp max.
Repeatability	+/- 1% full scale
Sensor Specifications	
Response Time	T90 = 10 seconds with full-scale calibration gas @ .75 litres/min. flow rate
Ranges	0-3,000 ppm (standard) can be re-scaled to 0-500 ppm if lower trip points are needed
Sensor Viability Test	SensorCheck, an internal microprocessor determines the sensor's electrical viability every 24 hours. If the viability test fails a 0.5 mA signal will indicate a fault. An internal light will show if a sensor is dried up or disconnected.
Enclosure	NEMA 4, gasketed, molded fibreglass reinforced polyester. Non-painted, non-rusting construction appropriate for food areas. UL 508 listed, CSA certified for use with industrial control equipment.
Weight	4.4 lbs.

Honeywell Analytics Lines of Business



Commercial

Vulcain-brand gas detection from stand-alone units to fully engineered, multi-point systems, all offering cost-effective regulatory compliance

- » Applications: parking structures, chillers, mechanical rooms, office towers, commercial buildings, shopping centers, swimming pools, golf courses, schools and universities, laboratories

Find out more

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Industrial

Renowned Sieger and Manning gas detection systems with advanced electrochemical, infrared and open path sensing technologies

- » Applications: oil and gas, cold storage, water/wastewater treatment, chemicals, engine rooms, plastics and fibers, agriculture, printing and light industrial



High Tech/Government

A complete portfolio of gas and chemical detection instrumentation including infrared spectroscopy (MST) with no cross interference, to Chemcassette paper-based solutions (MDA Scientific) offering detection down to parts per billion

- » Applications: semiconductor manufacturing and nanotechnology, aerospace propulsion and safety, specialty chemicals industry, research laboratories, emergency response

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Portables

Single or multi-gas Lumidor and other premium detectors with compact, lightweight designs ranging from simple alarm only units to advanced, fully configurable and serviceable instruments

- » Applications: underground utility and electricity ducts, boiler rooms, post-fire sites, sewers, industrial plants, industrial hygiene, first responder teams, remote fleets



Technical Services

24/7 global network includes post-sales service and Systems Integration teams

- » Emergency call out, service contracts, on/off-site repair, training and commissioning
- » Complete range of spares, consumables and accessories

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