

► MGS 250

Infrared refrigerant gas detector



Technical specifications

Gas detection:

- All CFC, HFC, HCFC et HFO (broad band version)
- R22, R134a, R404A, R407A, R407C, R407F, R422A, R422D, R452B, R507, R514A, R527A, HFO1234YF, HFO1234ZE (specific version)
- Measure range: 0 - 3500 ppm (all versions)
- Response time: T90 < 5 minutes

Sensor: NDIR infrared sensor, 5 to 7 years lifespan

Power supply: 24 Vdc or 24 Vac

Display: 4 digits red LED, 7 segments and green status LED

Buzzer: Can be activated or deactivated by configuration

Outputs:

- Analog: 4-20 mA, 0-5V, 0-10V, 1-5V, 2-10V
- Digital: RS485 Modbus RTU
- Relay: 1 SPDT potential free relay (1A / 24 Vac)

Housing: ABS plastic (UL flammability index 94V-0)

Protection index: Non IP classified (an optional splash guard is available for areas requiring additional protection for cleaning)

Dimensions: 100 x 140 x 40 mm

Weight: 180 grams

Operating conditions:

- Temperature: -30 to +40 °C
- Humidity: 5 to 90% HR (without condensation)

Certifications: CE, UL, CSA EN61010-1

Compliance: ASHRAE 15, EN 378 and CARB RMP

Product description

The **MGS 250** infrared refrigerant gas detector has a digital display, a linear 4-20 mA output, an RS485 Modbus RTU output, an SPDT alarm relay for servo controls and a buzzer for alarm signaling.

The **MGS 250** detects a very wide range of HFOs (Low GWP Fluoro-Olefin Hydrocarbons such as R1234yf or R1234ze), CFCs (Chloro Fluoro Carbon such as R11 or R12), HFCs (Hydro Fluoro Carbon such as R134A, R407C or R410) and HCFCs (Hydro Chloro Fluoro Carbon like R22).

It can be configured either as a broad band sensor used for the detection of coarse leaks (more economical version) or as a gas specific version which is pre-calibrated and characterized for an accurate and specific refrigerant gas response.

► NDIR infrared technology

Equipped with an infrared sensor (NDIR), the MGS 250 is insensitive to various interferences often encountered in detecting refrigerant leaks like flammable or toxic gas.

Unlike the semiconductor technology frequently used in refrigerant gas detection, the MGS 250 is insensitive to temperature or humidity variations, with a much longer average lifespan of 5 to 7 years.

► Main assets

- Long life infrared (NDIR) sensor
- Detects CFC, HFC, HCFC and new HFO refrigerants
- No crossed interference with other gas, humidity or temperature
- Analog, digital and relay output
- Buzzer for alert warnings
- All parameters and output setup can be done without opening the unit
- ASHRAE 15, EN 378 and CARB RMP standards compliant

Refrigerant gas	Codification	Refrigerant gas	Codification
Broad band	6401-0500	R507	6401-0512
R22	6401-0501	HFO1234YF	6401-0513
R134a	6401-0503	HFO1234ZE	6401-0514
R404A	6401-0504	HFO1233ZD	6401-0515
R407A	6401-0505	R32	6401-0516
R407C	6401-0506	R448A	6401-0517
R407F	6401-0507	R449A	6401-0518
R410A	6401-0508	R513A	6401-0519
R422A	6401-0509	R452A	6401-0520
R422D	6401-0510	R452B	6401-0521
R427A	6401-0511	R514A	6401-0522