

# **MGS-11-X**



## Precision small refrigerant sensor

The MGS11 precision small refrigerant sensor adopts the NDIR (non-dispersive infrared) absorption principle, combines with a high-precision sampling circuit, and has built-in temperature compensation and self-calibration functions. It can conduct real-time online monitoring of the refrigerant gas concentration in the environment, ensuring the safety of users' lives and property, and can be widely used in refrigerant leakage detection of commercial air conditioners, central air conditioners, refrigeration units and other products.

High measurement accuracy



Support switching/ RS485/UART/IIC output Built-in barometric and temperature compensation



Stable and reliable performance





Good gas selectivity









### **Advantages**

#### High tolerance, high reliability



Widest operating temperature range of the industry
Automotive grade electromagnetic compatibility

NDIR principle ensures good gas selectivity

#### Full industry coverage



Various specifications

Various output methods

Various measurement methods

Free combination to meet the application needs of various industries

#### **Miniature**



Compact and reliable, saving space for greater functionality
Save space while taking into account energy saving

A variety of models and appearances to meet the diverse needs of end product structural design

#### IEC/UL (60335-2-40 Appendix LL) certified



MGS11 precision small refrigerant sensor meets all requirements in response time, calibration and short-term stability, gas selectivity test and poisoning test, refrigerant poisoning and oil mist test, long-term stability test, temperature test, air pressure test, ignition test and other test items. It is suitable for safety experiments and tests of different refrigerant leakage detection products (such as R32, R410A, R454B, R1234yf, etc.).

#### **Parameters**

Detection refrigerant	R32/R454B/R1234yf (different refrigerant requirements can be customized)	Range of working temperature	-40°C ~+85°C
Measuring range	0-100%LFL	Range of working humidity	0~95%RH (no condensation)
Measurement accuracy	±2.5%LFL	Mean time between failures	≥ 10 years
Response time	12s	Size	62*39*18.8mm(L×W×H)
Stability	≤ 1%FS/years	Waterproof and dustproof grade	IP54
Output mode	Switching output: 1 channel (Alarm output); Digital output: RS485/UART/IIC		

## **Applications**



Commercial air conditioner



Central air conditioner



Refrigerant leakage detection of refrigeration units and other products

深圳市美思先端电子有限公司

Shenzhen MemsFrontier Electronics Co.,Ltd.

Web: www.memsf.com Email: info@memsf.com

Add: Building B2, Guangming Technology Park, Investment Promotion Bureau, Fenghuang Subdistrict, Guangming District, Shenzhen