

Portable Pinhole-Type Nitrogen Detector

Model: ES20B-N2-ZK



Product Specifications

Descriptions:

Nitrogen (N₂) is an inert gas that makes up approximately 78% of the Earth's atmosphere. Its chemical properties make it ideal for use in food packaging. Unlike oxygen, nitrogen does not react easily with other substances. This helps prevent the oxidation of fats and oils in food, which is a leading cause of spoilage and rancidity. The nitrogen used for food packaging must be of high purity, usually demanding 99.0% or greater, to ensure that no contaminants such as oxygen and carbon dioxide residue compromise the food quality.

Safewill understand the critical role that gas detection and monitoring play in the food packaging process. We designed and developed a model ES20B-N₂ with special pinhole function to detect nitrogen from food package by pump, ensuring that nitrogen concentrations and the rest oxygen & other gases residue are maintained to meet industry standards.

This model is proper to use in food industry, including but not limited to packaging of preserved foods such as spicy snacks, sunflower seeds, potato chips, beef jerky, milk powder, bread, etc., where nitrogen is used for freshness.

Features:

- ✦ Specially designed for the food industry with pump-suction needle sampling for more precise detection.
- ✦ Full metal casing.
- ✦ Supports both Chinese and English language switching.
- ✦ Capable of storing up to 100,000 data sets.
- ✦ Intelligent algorithm, multi-point calibration, and temperature compensation for more accurate measurements.
- ✦ High-capacity lithium battery enabling continuous operation for more than 20 hours.
- ✦ Audible and visual alarms for prompt alerts.

Technical Parameters:

- ☒ **Detection Gas:** Nitrogen (N₂)
- ☒ **Detection Method:** Pump-suction
- ☒ **Range:** 0~100% VOL
- ☒ **Detection Principle:** Electrochemical
- ☒ **Resolution:** 0.01% VOL
- ☒ **Indication Error:** ±3% F.S
- ☒ **Response Time:** T₉₀ < 30 seconds (varies by gas sensor)
- ☒ **Alarm Method:** Audible and visual alarms, dual-color LED indicator, sound level ≥75 dB @ 25 cm

Electrical Features:

- ☒ **Power Supply:** Lithium battery, nominal voltage: 3.7VDC, capacity 2600mAh
- ☒ **Charging Time:** ≤6 hours
- ☒ **Operating Time:** ≥12 hours (at room temperature with electrochemical sensor)

Structural Features:

- ☒ **Material:** Aluminum alloy
- ☒ **Weight:** Approximately 0.46 kg
- ☒ **Dimensions:** 220.0 mm × 64.8 mm × 35.5 mm (L × W × H)

Operating Environment:

- ☒ **Temperature Range:** -20°C to +50°C
- ☒ **Humidity Range:** 10% RH to 95% RH (non-condensing)
- ☒ **Pressure Range:** 86 KPa to 106 KPa

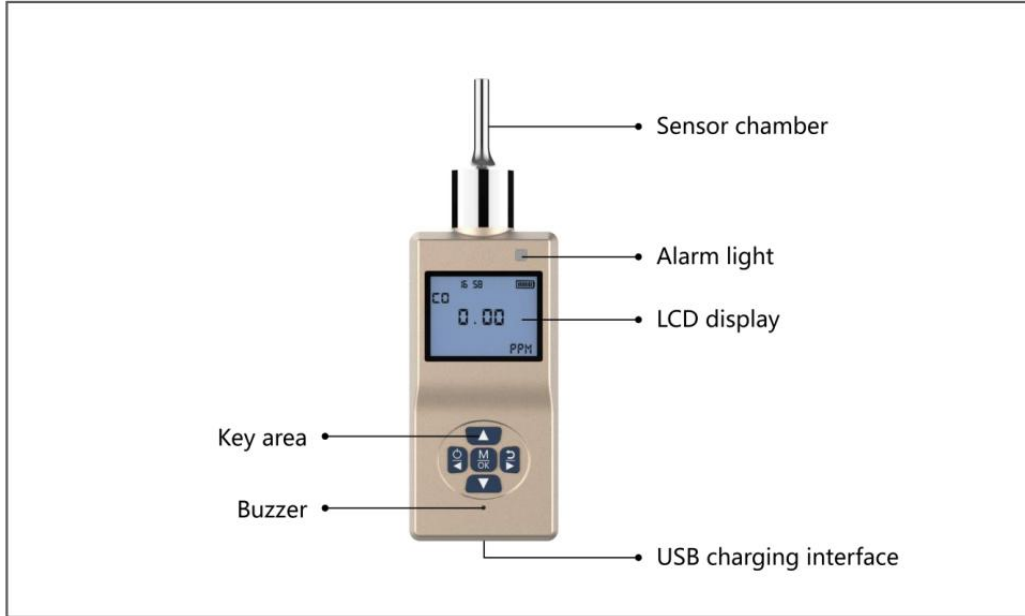
Certification:

- Explosion-Proof Certification: Ex ib IIC T4 Gb
- Standards: GB15322.3-2019, GB/T 3836.1-2021, GB/T 3836.2-2021, GB/T 3836.4-2021, GB12358-2006

Application Case



Product appearance:



Product key:

