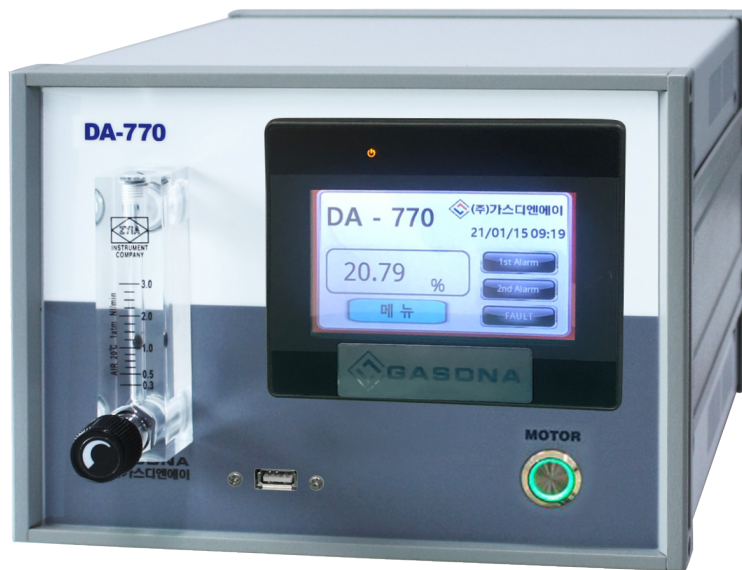


Smart Auto Suction Gas Analyzer for Carbon Dioxide

DA-770-CO₂ (0-2000PPM)



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1. Introduction

1.1 Product Overview

The DA-770-CO2 stands as a cutting-edge gas analyzer, renowned for its exceptional precision and unparalleled reliability within the Korean market. Through the incorporation of advanced sensing technology, it distinguishes itself with an extended operational lifespan and heightened stability in comparison to its counterparts.

1.2 Product Description

The DA-770-CO2 distinguishes itself by being comparatively less susceptible to temperature, humidity, and air pressure variations, setting it apart from alternative products dependent on electrochemical sensors. Additionally, it remains unaffected by the sample gas flow rate, eliminates the need for electrolytes, and demands less frequent calibration and maintenance efforts.

2. Product Features

- **Manual Calibration Function**

This device can be calibrated as per requirement and types of gases. This device has very easy calibration process that makes the maintenance and operation easy. Calibration ensures that the gas detector maintains accurate and reliable measurements over time. It is typically recommended to calibrate gas detectors regularly

- **Built-in HD (High Resolution) A/D Converter**

The device is equipped with a high-resolution analog-to-digital (A/D) converter, ensuring precise and accurate conversion of analog signals into digital output. This technology enhances the accuracy of the output signal, resulting in reliable and trustworthy measurements.

- **User Programming**

The device allows users to customize various settings, such as the detection range and other functions, according to their specific requirements and preferences. This feature provides flexibility and adaptability to meet diverse monitoring needs.

- **Analog 4-20mA Transmitter**

With the analog 4-20mA output, the device enables stable and long-distance signal transmission of up to 2.5 kilometers. This ensures reliable communication and allows for extended signal transmission distances while maintaining signal integrity.

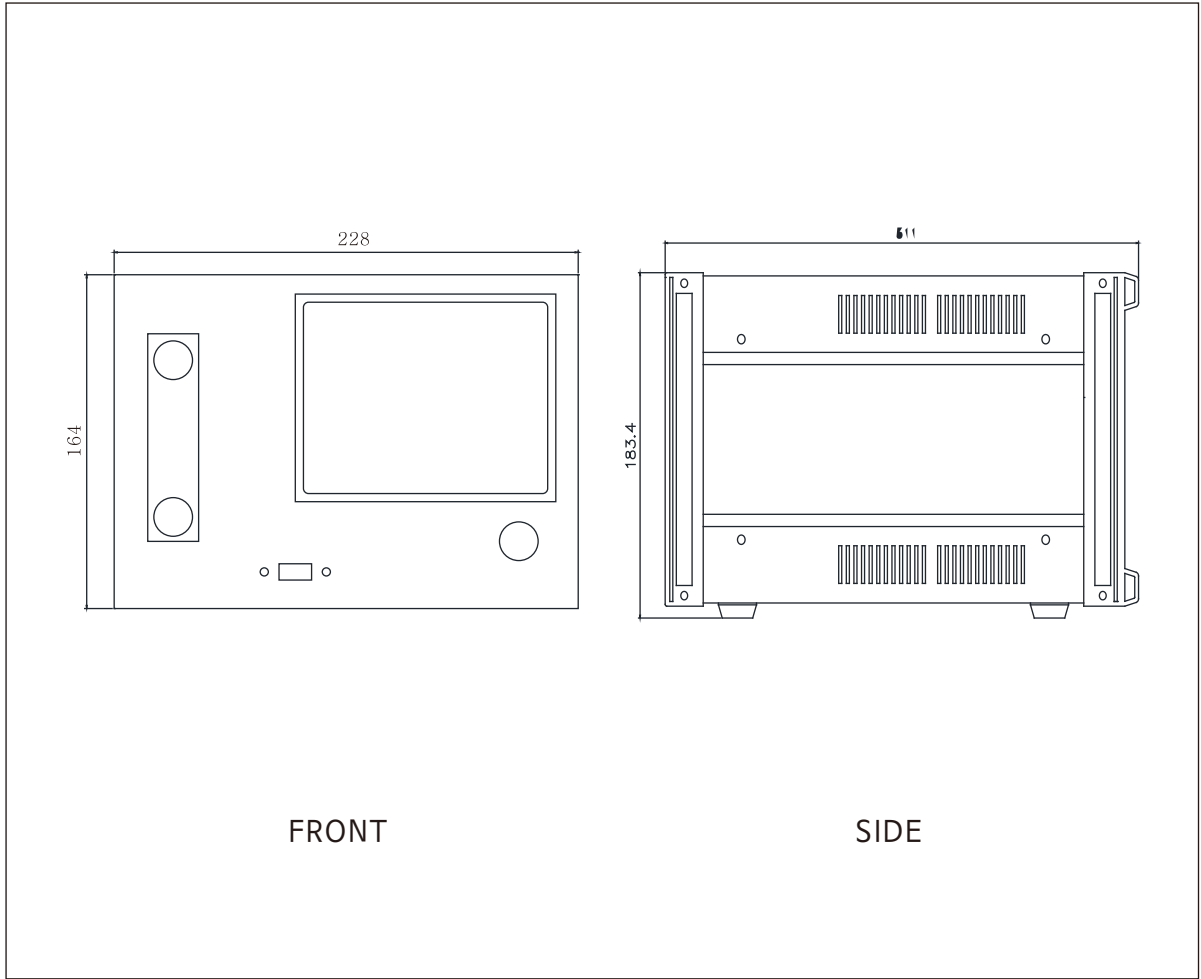
- **Alarm Output**

The device also features an alarm output capability. It is equipped with a Single-Pole Single-Throw (SPST) relay contact that provides a two-step alarm functionality. This means it can trigger two separate alarm states, denoted as alarm 1 and alarm 2, enabling effective alerting and response to gas detection events.

3. Product Specifications

| Product Code | DA-770-CO2 (0-2000PPM) |
|---------------------------------------|--|
| Gas | Carbon Dioxide |
| Detection Method | Suction Type |
| Detection Principle | NDIR |
| Display | 7" TFT LED (800 ×480) |
| Measuring Method | Suction Type |
| Gas Volume | 0.2 L/min~2.50 L/min |
| Alarm Signal | Alarm 1 – AL1 LCD (Yellow) Alarm 2– AL1 LCD (Red) Fault Alarm- LCD FAULT (Red) |
| Response speed & Accuracy | Within 15sec, $\leq \pm 0.5\%$ /full scale |
| Measurement Range | 0~2000PPM |
| Input Power | AC 110~ 220V (2.4 W) |
| Output Signal | 4 ~ 20mA DC/ F.S |
| Setting Of Alarm Value | AL2/AL1, 2 Stages Alarm-User Settings |
| Alarm Delay Time | 0~99 Sec, User adjustable |
| Alarm Output | 2 Step- Alarm Relay Contact |
| Alarm clearing | Manually or automatically |
| Ambient Temperatures & Humidity Range | -10°C ~ 60°C,5~95% RH (Non-condensing) |
| Installation Method | Tabletop Type |
| Inhalation of gas | Female 1/4" |
| Output (Optional) | RS-485 |
| USB Host | USB 2.0 (Data Log Download) |

4. Product Diagram



Unit: mm

5. Product Model No. & Gases Names

| Gases Names | Chemical Formula | Range | Product Codes | Sensor Resolution | Sensor Types |
|----------------------|------------------|-----------------|----------------------|-------------------|--------------|
| Ammonia | NH3 | 0~100 PPM | DA-770-NH3 | 0.01 PPM | TDLS |
| Carbon Dioxide | CO2 | 0~2000 PPM | DA-770-CO2-2000 | 1PPM | NDIR |
| Carbon Dioxide | CO2 | 0~10000 PPM | DA-770-CO2-10000 | 1PPM | NDIR |
| Carbon Dioxide | CO2 | 0 – 5.00%VOL | DA-770-CO2-5V | 0.001% VOL | NDIR |
| Carbon Dioxide | CO2 | 0 – 10.00%VOL | DA-770-CO2-10V | 0.001% VOL | NDIR |
| Carbon Dioxide | CO2 | 0 – 20.00%VOL | DA-770-CO2-20V | 0.01% VOL | NDIR |
| Carbon Dioxide | CO2 | 0 – 30.00%VOL | DA-770-CO2-30V | 0.01% VOL | NDIR |
| Carbon Dioxide | CO2 | 0 – 50.00%VOL | DA-770-CO2-50V | 0.01% VOL | NDIR |
| Carbon Dioxide | CO2 | 0~100% VOL | DA-770-CO2-100V | 0.01% VOL | NDIR |
| Carbon Monoxide | CO | 0~2,000 PPM | DA-770-CO-2000 | 1PPM | NDIR |
| Carbon Monoxide | CO | 0 - 5000 ppm | DA-770-CO-50000 | 1PPM | NDIR |
| Carbon Monoxide | CO | 0~10000 PPM | DA-770-CO-10000 | 1PPM | NDIR |
| Carbon Monoxide | CO | 0 - 5.00%VOL | DA-770-CO-5V | 0.001%VOL | NDIR |
| Carbon Monoxide | CO | 0 - 10.00%VOL | DA-770-CO-10V | 0.01%VOL | NDIR |
| Carbon Monoxide | CO | 0 – 20.00%VOL | DA-770-CO-20V | 0.01%VOL | NDIR |
| Carbon Monoxide | CO | 0 – 30.00%VOL | DA-770-CO-30V | 0.01%VOL | NDIR |
| Carbon Monoxide | CO | 0 – 50.00%VOL | DA-770-CO-50V | 0.01%VOL | NDIR |
| Carbon Monoxide | CO | 0~100% VOL | DA-770-CO-100V | 0.01%VOL | NDIR |
| Hydrogen | H2 | 0~100% VOL | DA-770-H2-100V | 0.001%VOL | TCD |
| Methane | CH4 | 0~5,000 PPM | DA-770-CH4-5000 | 1PPM | NDIR |
| Methane | CH4 | 0~10000PPM | DA-770-CH4-10000 | 1PPM | NDIR |
| Methane | CH4 | 0~5.000%VOL | DA-770-CH4-5V | 0.001%VOL | NDIR |
| Methane | CH4 | 0~10.000%VOL | DA-770-CH4-10V | 0.001%VOL | NDIR |
| Methane | CH4 | 0~50.000%VOL | DA-770-CH4-50V | 0.01%VOL | NDIR |
| Methane | CH4 | 0~100.000%VOL | DA-770-CH4-100V | 0.01%VOL | NDIR |
| Methane | CH4 | 50~1,000,000PPM | DA-770-CH4-1,000,000 | 1PPM | NDIR |
| Nitrogen trifluoride | NF3 | 0~100PPM | DA-770-NF3 -100 | 1PPM | NDIR |
| Nitrogen trifluoride | NF3 | 0~1000PPM | DA-770-NF3 -1000 | 1PPM | NDIR |
| Nitrogen trifluoride | NF3 | 0~10,000PPM | DA-770-NF3 -10000 | 1PPM | NDIR |
| Oxygen | O2 | 0-1000 PPM | DA-770-O2-1000 | 1PPM | Optical |
| Oxygen | O2 | 0~99.99 %VOL | DA-770-O2-100 | 0.01%VOL | Optical |
| Sulfur Dioxide | SO2 | 0~2000PPM | DA-770-SO2 | 1PPM | NDIR |
| Sulfuryl Fluoride | SO2F2 | 0~100 PPM | DA-770-SO2F2-100 | 0.001PPM | NDIR |
| Sulfuryl Fluoride | SO2F2 | 0~4.000% VOL | DA-770-SO2F2-4V | 0.001%VOL | NDIR |
| Sulfuryl Fluoride | SO2F2 | 0~6.000% VOL | DA-770-SO2F2-6V | 0.001%VOL | NDIR |
| Sulfur Hexafluoride | SF6 | 0~50.000PPM | DA-770-SF6-50 | 0.001PPM | NDIR |
| Sulfur Hexafluoride | SF6 | 0~1000PPM | DA-770-SF6-1000 | 0.1PPM | NDIR |
| Sulfur Hexafluoride | SF6 | 0~2000 PPM | DA-770-SF6-2000 | 1PPM | NDIR |
| Sulfur Hexafluoride | SF6 | 0~5000PPM | DA-770-SF6-5000 | 1PPM | NDIR |
| Sulfur Hexafluoride | SF6 | 0~100% VOL | DA-770-SF6-100V | 0.01 VOL | NDIR |