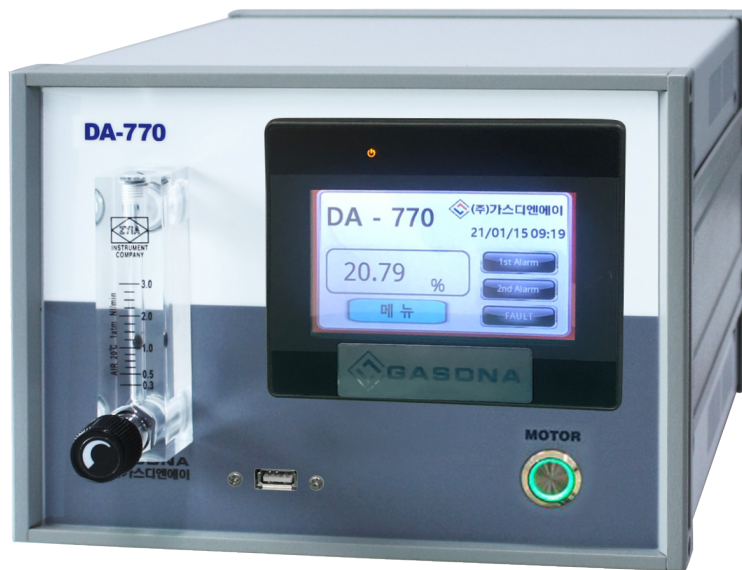


# Smart Auto Suction Gas Analyzer

# DA-770



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## 1. Introduction

### 1.1 Product Overview

The DA-770 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 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.

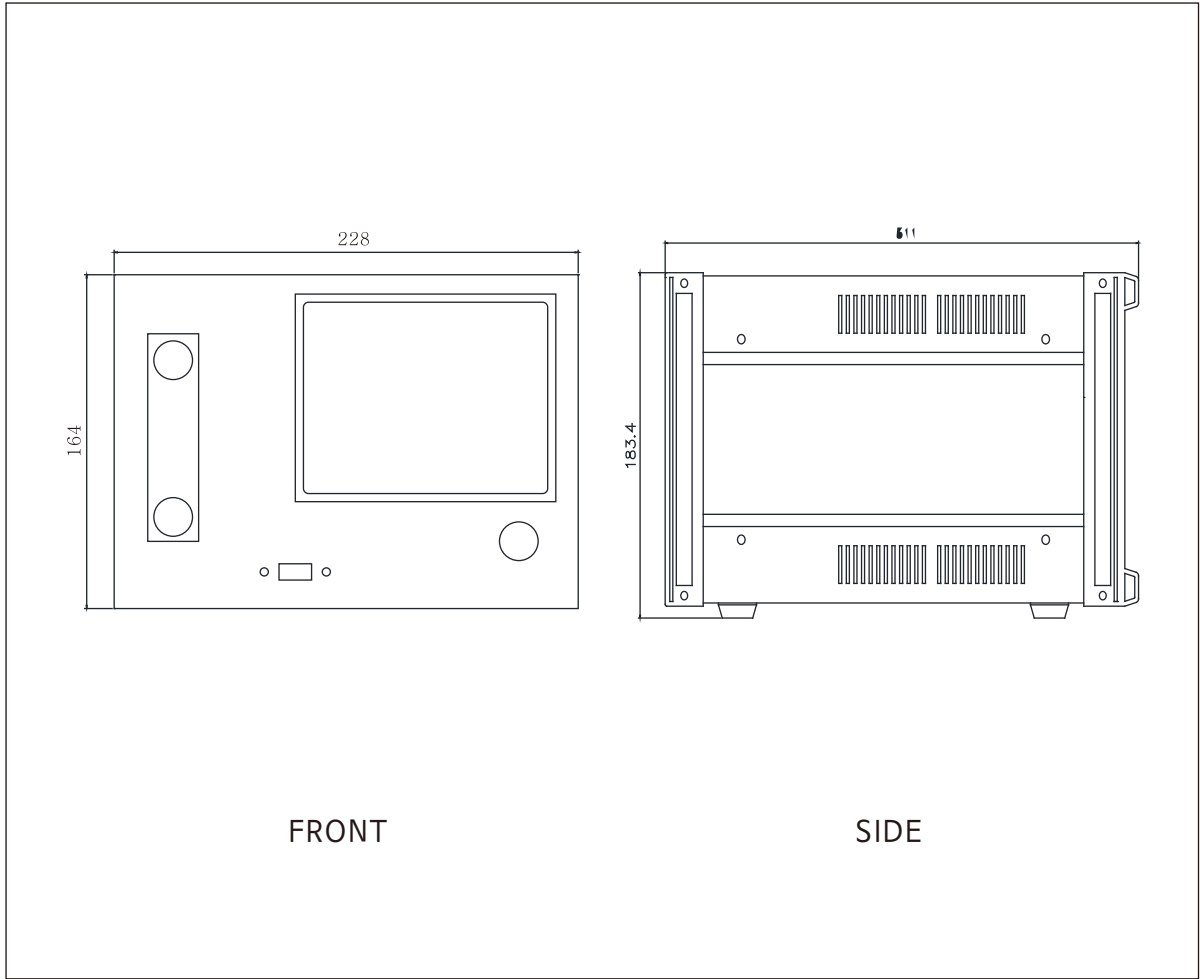
- **Alarm Output**

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