

## 1-1 Features

### 1-1-1 Analog Input Units

This operation manual describes the features of the following Analog Input Units.

- 3G2A5-AD001 to 3G2A5-AD007
- C500-AD101
- C500-AD501

#### Basic Function

Analog quantities, such as temperature, pressure, power, and power factor, input to an Analog Input Unit via a preamplifier or transducer are converted to digital values for input to the CPU Unit.

#### Features

##### **3G2A5-AD001 to 3G2A5-AD007**

Analog signals from sensors are converted to 12-bit binary data by the 3G2A5-AD001 to 3G2A5-AD005 Analog Input Units (resolution: 1/4095); or to 10-bit binary data by the 3G2A5-AD006 and 3G2A5-AD007 Analog Input Units (resolution: 1/1023).

##### **Number of Input Points Per Unit**

Each Unit can handle A/D conversion for either two or four input points.

Unit	Number of Inputs
3G2A5-AD001 to 3G2A5-AD005	2 points
3G2A5-AD006/007	4 points

##### **Compatible Input Specifications**

The Units are compatible with a variety of input specifications. Select the appropriate Unit from the table below.

Input signal range		Unit
Voltage	1 to 5 V	3G2A5-AD001/006
	0 to 10 V	3G2A5-AD002/007
	0 to 5 V	3G2A5-AD003
	-10 to 10 V	3G2A5-AD004
	-5 to 5 V	3G2A5-AD005
Current	4 to 20 mA	3G2A5-AD001/006

##### **C500-AD101**

This Unit converts analog signals from sensors to 12-bit binary data.

##### **Number of Input Points Per Unit**

Each Unit has eight input points. An separate input signal range can be set for each input point, to permit the simultaneous use of sensors with different output forms.

##### **Input Signal Ranges**

The input signal ranges can be set as required between 0 and 10 V for a voltage input or between 0 and 20 mA for a current input.

##### **Many Features**

In addition to A/D conversion, the Analog Input Units offer peak hold, mean value, scaling, and disconnection detection functions.

##### **High Accuracy and High Speed**

The C500-AD101 achieves a resolution up to 1/4095 and a conversion time of 10 ms max. per point.

The I/O READ and I/O WRITE instructions, READ and WRIT, can be used to transfer data with the CPU Unit, thereby simplifying program creation and achieving high-speed processing with batch transfer.