MANUFACTURER DOCUMENT PACKAGE

# Manufacturer's Manual

Reference package for procurement and maintenance review

GE

## IC200ALG261

**EIGHT-CHANNEL DIFFERENTIAL VOLTAGE INPUT MODULE**

Used with the applicable GE VersaMax configuration.

REFERENCE PACKAGE

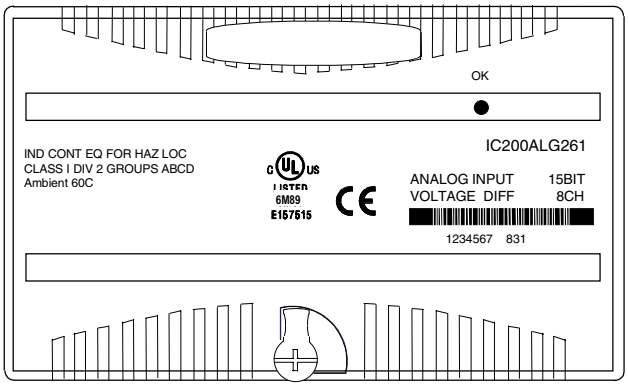
OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: GE Fanuc VersaMax Modules, Power Supplies, and Carriers User Manual, GFK-1504K

## IC200ALG261
## Analog Input Module, 15 Bit Differential Voltage 8 Channels

Analog input module IC200ALG261 provides an interface to 8 differential voltage inputs.




The module receives power from the backplane power supply. No external power source is required for module operation. Power for the user's transceivers must be supplied from an external source.

Intelligent processing for this module is performed by the CPU or NIU. The module provides 8 words of analog input data.

### LED Indicators

The green OK LED is on when backplane power is present, internally generated field power is functioning properly, the module has been configured, and the module has been recognized on the backplane.

### Diagnostics

The module reports a Loss of Internal Power fault for field-side circuits.

### Configuration Parameters

None

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### Module Specifications

| | |
|---|---|
| ***Module Characteristics*** | |
| Channels | 8 differential, one group |
| Module ID | FFFFB008 |
| Isolation:<br>User input to logic (optical) and to frame ground<br>Group to group<br>Channel to channel | <br>250VAC continuous; 1500VAC for 1 minute<br><br>Not applicable<br>None |
| LED indicators | OK LED indicates backplane power is present |
| Backplane current consumption | 5V output: 200mA maximum |
| External power supply | None |
| Thermal derating | None |
| Configuration parameters | None |
| Diagnostics | Loss of Internal Power |
| ***Input Characteristics*** | |
| Input Voltage (Differential) | -10V to +10V |
| Input Voltage (Common Mode) | -10V to +10V |
| Input Impedance | 100K ohms minimum |
| Accuracy (0V common mode):<br>25 degrees C*<br>0 to 60 degrees C | <br>+/-0.3% typical of full scale, +/-0.5% maximum of full scale<br>+/-1% maximum of full scale |
| Resolution | 0.3125mV = 1 count |
| Common mode rejection | 70db |
| Update rate per module | 7.5ms |
| ***Compatibility*** | |
| VersaPro Software | Version 2.0 or higher |
| VersaMax PLC CPU Firmware | Version 2.10 or higher |
| VersaMax Ethernet NIU Firmware | Version 1.10 or higher |
| VersaMax DeviceNet, Profibus, or Genius NIU Firmware | Planned for future release |

* In the presence of severe RF interference, (IEC 1000-4-3, 10V/m), accuracy may be degraded to +/-1%. Input accuracy may be degraded an additional +/-1% with the introduction of input common mode voltage.

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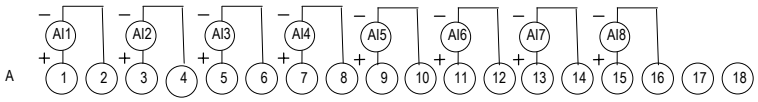
### Field Wiring

Terminal assignments for the module are shown below.

| Number | Connection | Number | Connection |
|---|---|---|---|
| A1 | Input 1 (+) | B1 | No connection |
| A2 | Input 1 (-) | B2 | No connection |
| A3 | Input 2 (+) | B3 | No connection |
| A4 | Input 2 (-) | B4 | No connection |
| A5 | Input 3 (+) | B5 | No connection |
| A6 | Input 3 (-) | B6 | No connection |
| A7 | Input 4 (+) | B7 | No connection |
| A8 | Input 4 (-) | B8 | No connection |
| A9 | Input 5 (+) | B9 | No connection |
| A10 | Input 5 (-) | B10 | No connection |
| A11 | Input 6 (+) | B11 | No connection |
| A12 | Input 6 (-) | B12 | No connection |
| A13 | Input 7 (+) | B13 | No connection |
| A14 | Input 7 (-) | B14 | No connection |
| A15 | Input 8 (+) | B15 | No connection |
| A16 | Input 8 (-) | B16 | No connection |
| A17 | Field Return | B17 | No connection |
| A18 | NC | B18 | No connection |

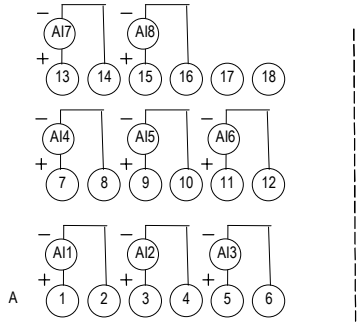
***Wiring Connections for Carriers with Two Rows of Terminals***

*IC200CHS002, 005*
*IC200CHS012, 015*

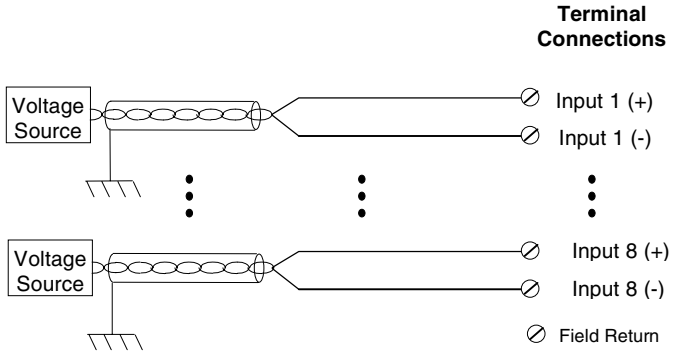



***Wiring Connections for Carriers with Three Rows of Terminals***

*IC200CHS001, 022, 025*
*IC200CHS011*



## Wiring Examples




An external source must be provided to power input transceivers.

## Cable Shield Connections

If possible, the cable should be grounded at the source device. If that is not possible, the cable shield must be grounded at the source device. If that is not possible, the cable shield must be grounded at the I/O module. This can be done using an Auxiliary I/O Terminal (IC200TBM001, 002, or 005).

If the module is installed on a Terminal-style I/O Carrier (IC200CHS001, 002, or 005), shield connections can be made on an Auxiliary I/O Terminal that is attached to the I/O carrier.

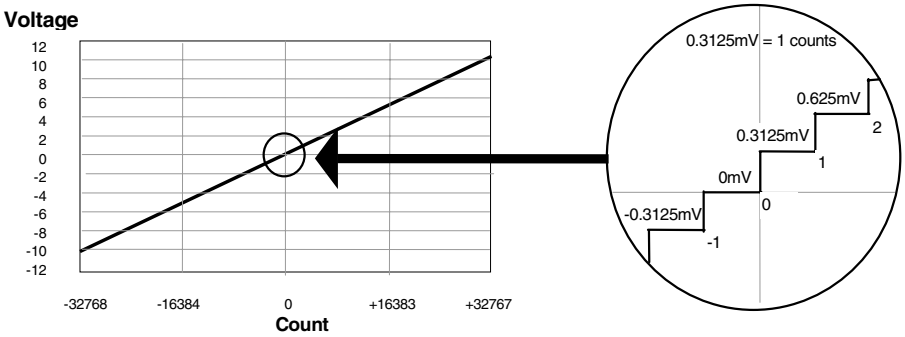
If the module is installed on a Compact Terminal-style I/O Carrier (IC200CHS022, 025), shield connections can be made on an Auxiliary I/O Terminal that is mounted near the I/O carrier. Be sure to ground the Auxiliary I/O Terminal Strip if you plan to use it for this purpose.

If the module is installed on a Connector-style I/O Carrier (IC200CHS003), the cable shield can be connected directly to an Interposing Terminal (IC200CHS011, 012, 015). Be sure to ground the Interposing Terminal. It is recommended to use a shielded interposing cable as well between the Interposing Terminal and the Connector Base. A custom shielded cable can be made using the Connector kit (IC200ACC302). In addition, a custom shield braid can be wrapped around standard Interposing Cables (IC200CBL105, 110, 120, 230). If this approach is used be sure to ground the braid.

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### Scaling

The graphs below show the relationship between the input voltage measured at the field terminals and the data that is output by the module.




The following equations can be used to calculate count values:

Counts = ( Input Voltage ) x (32000 / 10V)

### Operating Range

The operating range for the IC200ALG261 module is shown in the following graph.

