4-20mA Isolated Analog Input
Product Specifications and Installation Data

1 DESCRIPTION

The 4-20mA Isolated Analog Input module (HE670ADC840) is compatible with GE Fanuc Field Control. It provides eight analog channels with a resolution of 12-bits. Isolation levels are 400VDC (channel-to-channel) and 1,000VDC (channel-to-ground). The module converts the current input signals into digital values, which can be accessed through communications with the Bus Interface Unit. These modules are physically housed in the standard Field Control I/O case and are compatible with a variety of I/O bases providing flexible termination options.

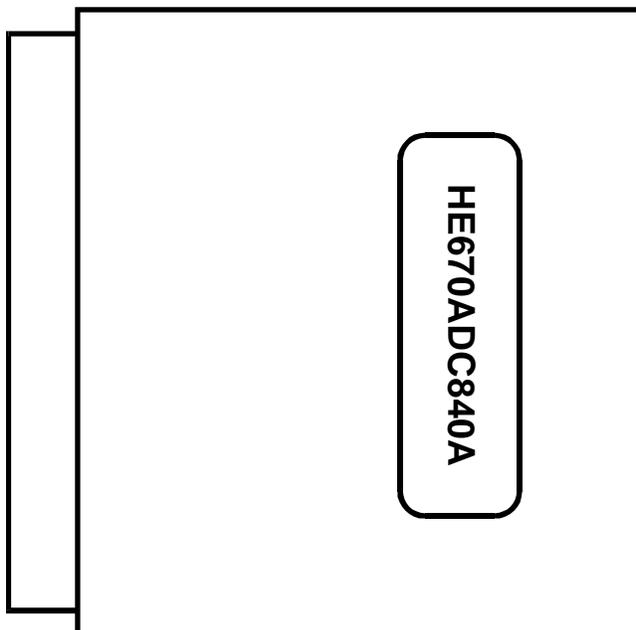**NOTE:** For HE670ADC840, revision C and higher, hot swap capability is supported.
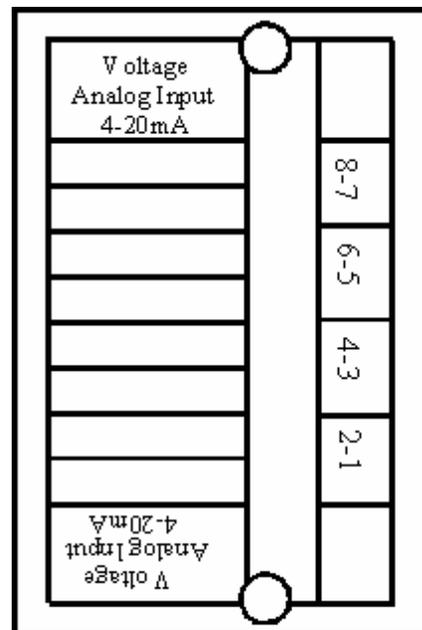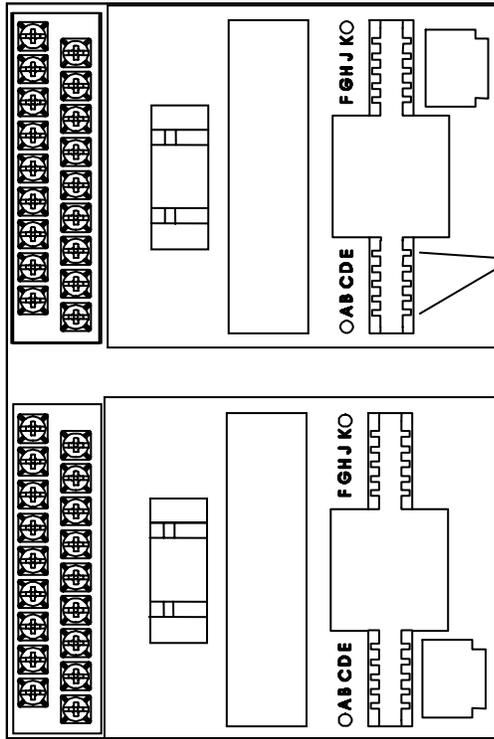

Figure 1 – Side View

Figure 2 – Front View

2 SPECIFICATIONS

Table 2.1 - HE670ADC840 Specifications			
Power Consumption	130mA from backplane	**Output Format**	Set by BIU
Number of channels	8	**Resolution**	12-bits
Range	4-20mA	**Maximum error at 25°C**	± 1% Full Scale
Channel-to-Channel Isolation	400VDC	**Operating Temperature**	0 to 75°C
Channel-to-Bus Isolation	1,000VDC	**Relative Humidity**	5% to 95%, non-condensing
Input Impedance	100 ohms	**Input Power Required**	Supplied by BIU

3   WIRING

Keyed Slots

Keyed Slots

Ch. 8 -   Ch. 8 +
Ch. 7 -   Ch. 7 +
Ch. 6 -   Ch. 6 +
Ch. 5 -   Ch. 5 +
Ch. 4 -   Ch. 4 +
Ch. 3 -   Ch. 3 +
Ch. 2 -   Ch. 2 +
Ch. 1 -   Ch. 1 +
N.C.   N.C.
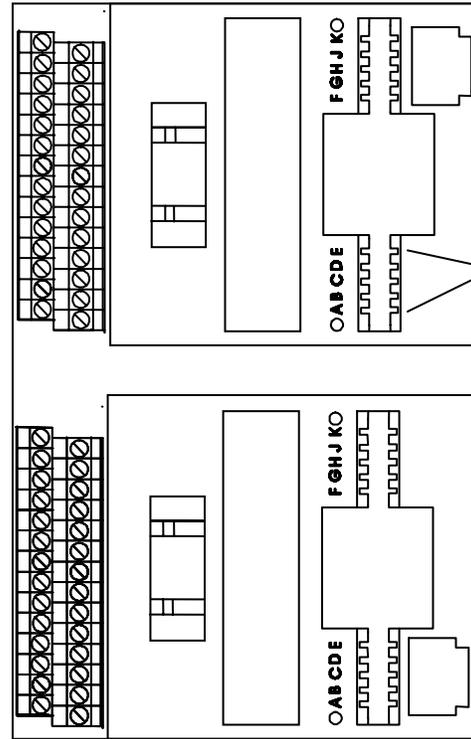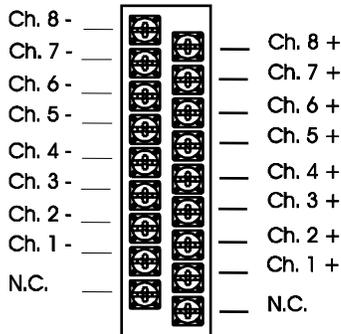
**Figure 3 – Terminal Block
With Block Terminal**

Ch. 8 -   Ch. 8 +
Ch. 7-   Ch. 7 +
N.C.   N.C.
Ch. 6 -   Ch. 6 +
Ch. 5 -   Ch. 5 +
N.C.   N.C.
Ch. 4 -   Ch. 4 +
Ch. 3 -   Ch. 3 +
N.C.   N.C.
Ch. 2 -   Ch. 2 +
Ch. 1 -   Ch. 1 +
N.C.   N.C.
N.C.   N.C.
N.C.   N.C.
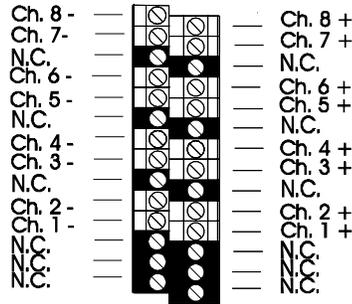
**Figure 4 – Terminal Block
With Barrier Terminal**

4-20 mA

4-20 mA
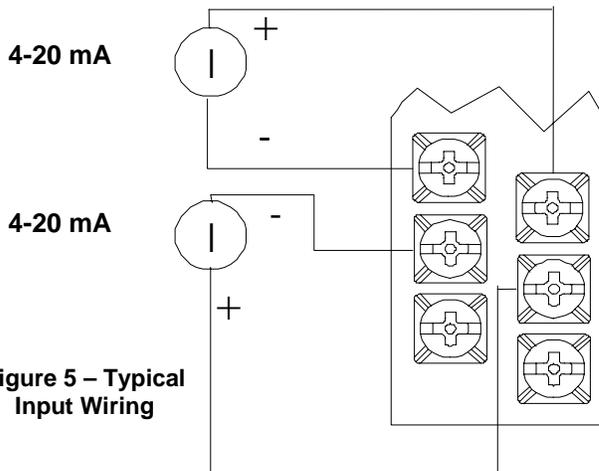
**Figure 5 – Typical
Input Wiring**

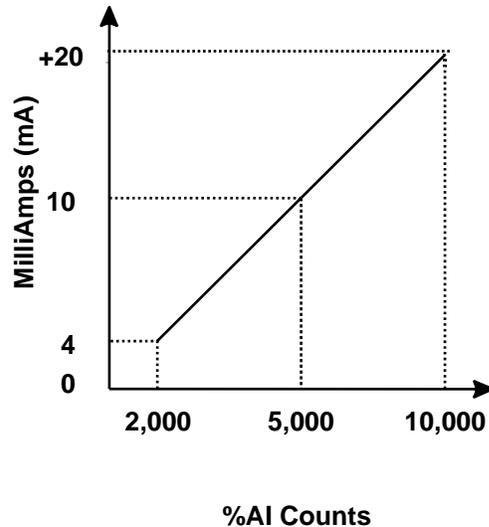| Key Locations										
A	B	C	D	E	F	G	H	I	J	K
X			X			X				X

4   INPUT SCALING

4.1   The value of each %AI varies from 0 to 10,000 counts depending upon mA
input.

Example: **Ch.1 = 10mA**   **Ch.2 = 5mA**
                        %AI 1 = 5,000 counts   **%AI2 = 2,500 counts**

%AI Counts

5   CONFIGURATION

5.1   Configuration Procedure for HE697ADC840

1   Connect the GE Fanuc Genius Hand Held Monitor (Part # IC660HHM501).
2. Turn the hand held monitor on. The screen should display the baud rate.
3. If baud is set at the correct setting, press **OK** (F4).
4. The hand held monitor performs the self-test.
5. Press **CONFIGURATION** (F3).
6. Press **CONFIG. BLOCK** (F2).
7. Press **CONFIGURATION** (F2).
8. Press **MODULE CONFIG.** (F2).
9. "**I/O SCAN**" is displayed on the screen.
10 Press F2 to page-up through the memory reference settings.

<u>**Memory Reference Settings**</u>: (Starting addresses can vary.)

I/O Scan	Enable	**BLK Map Start AI**	AI00001
Network	Enable	**BLK Map Length AI**	8
BLK Map Start I	I00001	**BLK Map Start AQ**	AQ00001
BLK Map Length	?	**BLK Map Length AQ**	?
BLK Map Start Q	Q00001	**Sync Module**	YYYYYYYY
BLK Map Length Q	?		