

This option continuously outputs an analog current proportional to the position of the transducer. It varies from 4 to 20 mA for each 90° of rotation. This signal is brought outside the unit on the J1 Connector. This signal can be used in many different applications including remote displays and remote position sensing.

## Programming Additions and Changes

Programming additions and changes are not made with this option. The standard iPLC Manual contains all programming instructions

## Hardware Connections

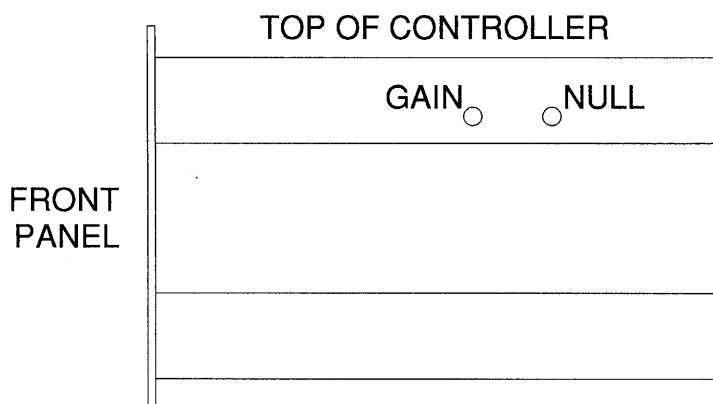
The analog output is available on Pins 24 and 22 of the 40 pin J1 Connector. The Analog output will drive an Equivalent Series Resistance of no more than 700Ω. The analog output should be carried by a twisted pair of wires.

The following table lists the pinout assignments of the Analog Signal and Analog Return on various AMCI products.

	J1 Conn.	IM-(x)	RB-1	MRB-1
Analog Signal	Pin 24	Pin 24	Pin 5 - TB8	Pin 4 - TB7
Analog Return	Pin 22	Pin 22	Pin 4 - TB8	Pin 3 - TB7

## Analog Output Adjustment

There are two adjustments available to control the levels of the analog output. These adjustments are called **NULL** and **GAIN**. Use the NULL adjustment to set the 4mA output and the GAIN to set the 20mA output once the NULL has been properly adjusted. Both of these adjustments are located on the side panel of the iPLC unit.



## iPLC-1 OPTION V4: 4-20mA Output per 90° Rotation

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### *Analog Output Adjustment (cont'd)*

To adjust the Analog Output:

- Attach a DC ammeter and a current limiting series resistor of no more than 700 $\Omega$  (470 $\Omega$  works well), to pins 24 and 22 of the J1 Connector or the pins of the Interface Module or Relay Boards as shown on the preceding page.
- Attach the transducer to the iPLC-1.
- Set the Scale Factor to 1000 and set the position to 000.
- Use a small screwdriver to adjust the NULL potentiometer until the ammeter reads 4mA.
- Rotate the transducer until the position reads 249.
- Use a small screwdriver to adjust the GAIN potentiometer until the ammeter reads 20 mA.
- Recheck the output current at position 000. It should still be 4 mA.

CALIBRATION COMPLETE.

### *Notes:*

The resolution of the Analog output is 8 bits (256 Steps over entire range) regardless of the Scale Factor value.

When there is a transducer fault, the analog output defaults to 4 mA.

### *Model Number and EPROM Checksum*

Use the following keystrokes to display the iPLC-1V4 Model Number and Checksum. Note that the numbers are different from the ones given in the iPLC Manual.

PRESS	DISPLAY	COMMENTS
[PROGRAM]	"PROGRAM x"	x = Number of running program.
[NEXT]	"IPLC1-V4, 2"	Model and Revision Number
[NEXT]	"EPROM 5102"	Software Checksum

Catalog Number L1V4-494O.