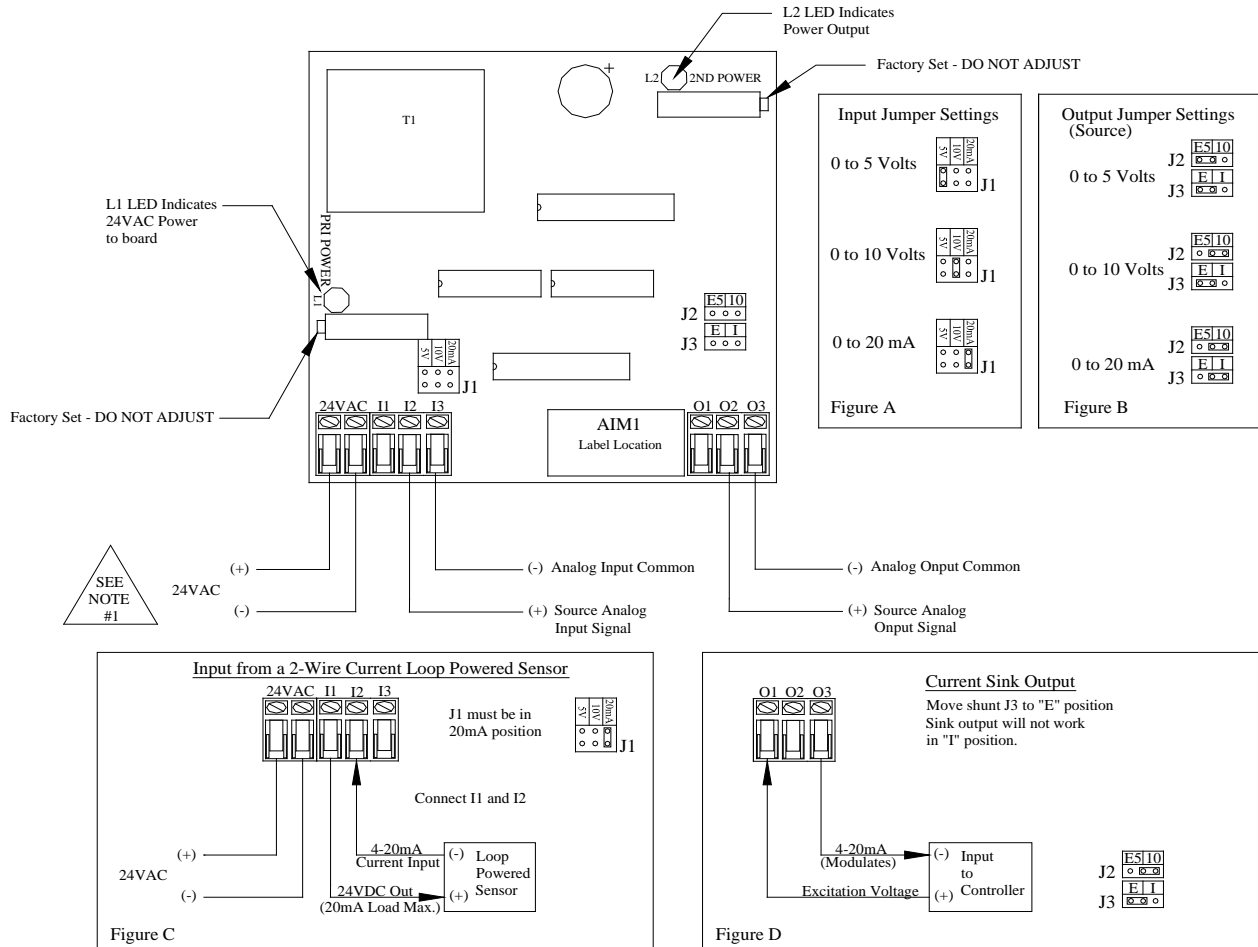




Installation and Operation Instructions

AIM1

1 to 1 Analog Isolation Module



Installation

READ THESE INSTRUCTIONS BEFORE YOU BEGIN INSTALLATION.

Ground yourself to discharge static electricity before touching any electronic equipment, as some components are static sensitive. The interface device can be mounted in any position. If circuit board slides out of snap track, a non-conductive "stop" may be required. Use only fingers to remove board from snap track. Slide out of snap track or push up against side of snap track and lift that side of the circuit board to remove. **Do not flex board. Use no tools.**



POWER CONNECTIONS – THIS PRODUCT ACCEPTS 24 VAC POWER.

Be sure to follow all local electrical codes. Refer to wiring diagram for connection information. Make all connections with the power off.

1. **24 VAC** – with power off, connect each transformer secondary leg to the 24VAC PW terminals on the board. Check the wiring configuration of any other loads that may be connected to this transformer.

If required by BAS or controller specification, the 24VAC neutral can be earth grounded at the transformer. Analog input, digital input, and analog output circuits should not be earth grounded at two points.

Any field device connected to this transformer must use the same common. If you are not sure of other field device configuration, use separate transformers for isolation.

2. **If the 24VAC power is shared** with other devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, AC Transorb, or other spike snubbing device across each of the shared coils. Without these snubbers, coils produce very large voltage spikes when de-energizing that can cause malfunction or destruction of electronic circuits.
3. You should measure the actual voltage output of the secondary. If the output is not fully loaded you may read a higher voltage than the circuit board can handle.

Function Selections

STEP 1) INPUT TYPE

Set jumper block J1 for 0 – 5 Volts, 0 – 10 Volts, or 0 – 20 milliamps input signal. See **Figure A** on Page 1 for details.

STEP 2) OUTPUT TYPE

Set jumper block J2 and J3 for 0 -5 Volts, 0 – 10 Volts, or 0 – 20 milliamps output signal. See **Figure B** on page 1 for details.

Calibration and Checkout

The AIM1 is factory calibrated as follows, unless otherwise specified: 0 – 5 Volts Input Signal 1:1 Input to Output Signal Ratio, 0 -5 Volts Output Signal.

STEP 3) WIRING CONNECTIONS (for “source” input and output)

With the power OFF connect a 24 VAC power supply to the 24VAC terminals of the AIM1.

For inputs from powered current devices, and voltage input signals, connect signal common (-) to the I3 signal input terminal of the AIM1, and the signal positive (+) to the I2 signal input terminal of the AIM1.

For 2-Wire current inputs to AIM1 requiring power see **Figure C** on page 1 for hook-up details.

Connect the output signal common (-) terminal O3 and the output signal positive terminal O2 to their respective terminals on the controlled device.

For current “sink” output from AIM1, see **Figure D** on page 1 for hook-up details.

STEP 4) POWER UP

Turn on the 24VAC power supply. Both Primary Power (PRI POWER) and Secondary Power (2ND POWER) LED indicators on the AIM1 will light.

STEP 5) OPERATION

The AIM1 will now accept an input signal and produce an isolated and proportional output signal. (Example, a 5.0 volt input signal will produce a 5.0 (± 0.05 volts) volt DC output signal.)

EU Commission Directive 2002/95/EC (RoHS) Compliant

Product Specifications

Supply	Voltage	24 VAC
	Power Consumption	100 mA Max.
	Input Impedance	0-5 VDC, 0-10 VDC<20,000 Ohms, 0-20 mA/250 Ohms
	Output Impedance	Voltage - 5,000 Ohms Min., Current – 500 Ohms Max.

Warranty Specification

The ACI Wireless Series is covered by ACI’s Two (2) Year Limited Warranty, which is located in the front of ACI’S SENSORS & TRANSMITTERS CATALOG or can be found on ACI’s web site: www.workaci.com.