48-Channel, 12-Bit Analog Input Board

Voltage or Current Input with Programmable Gain

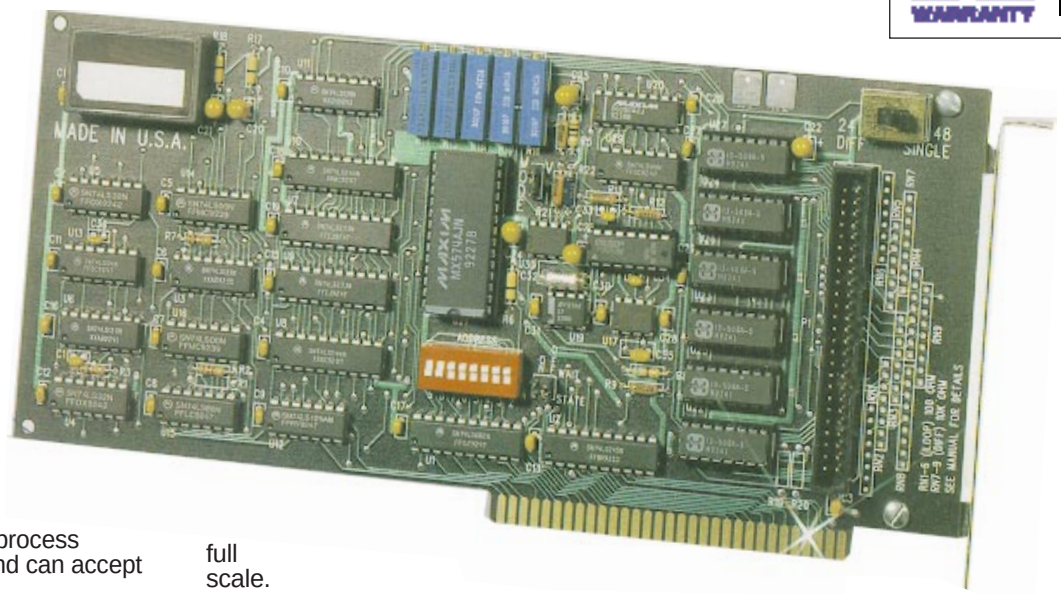
3 YEAR WARRANTY

MADE IN USA

$399

A/D

PC BUS



Designed for low speed, high density analog measurement, the CIO-DAS48 is especially suited for 4-20 mA readings. The CIO-DAS48 is available in two models. The CIO-DAS48-PGA accepts either 48 single-ended or 24 differential voltage signals. The CIO-DAS48 is used for process current measurement and can accept 24 current inputs.

Process control sensors with built-in sending units often use 4-20 mA current loop to communicate with the data acquisition system: a computer or programmable controller. Current loop transmission is noise immune. Electromechanical disturbances and RFI from ac voltage sources will not affect the signal level of a 4-20 mA current loop. Noise immunity makes 4-20 mA desirable in factory environments.

The analog input circuit contains a programmable amplifier so the input range is under software control. Both voltage and current input ranges are programmable and although four current input ranges are available, it is likely that the 4-20 mA range is the one you are interested in.

Of course, you may eliminate the screw terminal board and direct wire signals to the CIO-DAS48 through a ribbon cable terminated with a 50 pin connector.

The analog input section of the CIO-DAS48 has been designed for flexibility and accuracy in a number of configurations and ranges. The analog signals are brought on board by a standard 50 pin header type connector directly to analog multiplexors. The multiplexors provide 48 channels of single ended input or 24 channels of differential input and are protected against 30 volts max.

A 2 µsec sample & hold captures the signal which is converted by a 574 A/D converter. The 12-bit A/D converter provides a resolution of 1/4095 parts of full scale.

The speed of data gathering is dependent on the CPU speed but in general may not exceed 20KHz on a fast 386 or 486 computer.

The CIO-DAS48 is best utilized in process control or other applications where the A/D samples are initiated under program control.

The CIO-DAS48 may be programmed directly with I/O write and read command providing control from BASIC, C and Pascal. It is quite easy to control the CIO-DAS48 from any language that provides I/O instructions because of the simple register structure.

For those who prefer a language driver or library, the CIO-DAS48 is supported by the Universal Driver programming language package which supports most DOS and Windows languages.

Specifications

Number of Inputs: 48 single-ended or 24 differential voltage (CIO-DAS48-PGA), 24 current (CIO-DAS-48-I)

Input Resolution: 12 bits

Voltage Input Ranges: (CIO-DAS48-PGA): +/-10V, +/-5V, +/-2.5V, +/- 1.25V, +/-0.625V, +/-10V, 0-10V, 0-5V, 0-2.5V, 0-1.25V

Current Input Ranges: (CIO-DAS48-I): 4-20ma, 2-10ma, 1-5ma, 0,5-2.5ma

Max. Sample Rate: 20Khz

Impedance for Voltage Input: >10MOhm

Impedance for Current Input: 100ohm

Linearity: +/-1 bit

Zero Drift: 10ppm/deg C

Gain Drift: 50ppm/deg C

Operating Temperature: 0-50C

Storage Temperature: -20 to 70C

Weight: 5oz

To Order *(Specify Model No.)*		
Model No.	**Price**	**Description**
CIO-DAS48-PGA	**$399**	48-ch voltage input board,
CIO-DAS48-I	**399**	24 ch current input board
CIO-MINI50	**49**	4" x 4" panel, 50 screw terminals and 50 pin conn.
C50FF-2	**25**	2-foot cable
UNIV-DRV	**49**	Universal Software Driver
CIO-Labview-Drvr	**49**	Labview Drivers. Requires

Ordering Example: *CIO-DAS48-PGL 48-channel A/D board, with CIO-MINI50 terminal panel and C37FF-2 cable, $399 + 49 + 25 =* ***$473.***