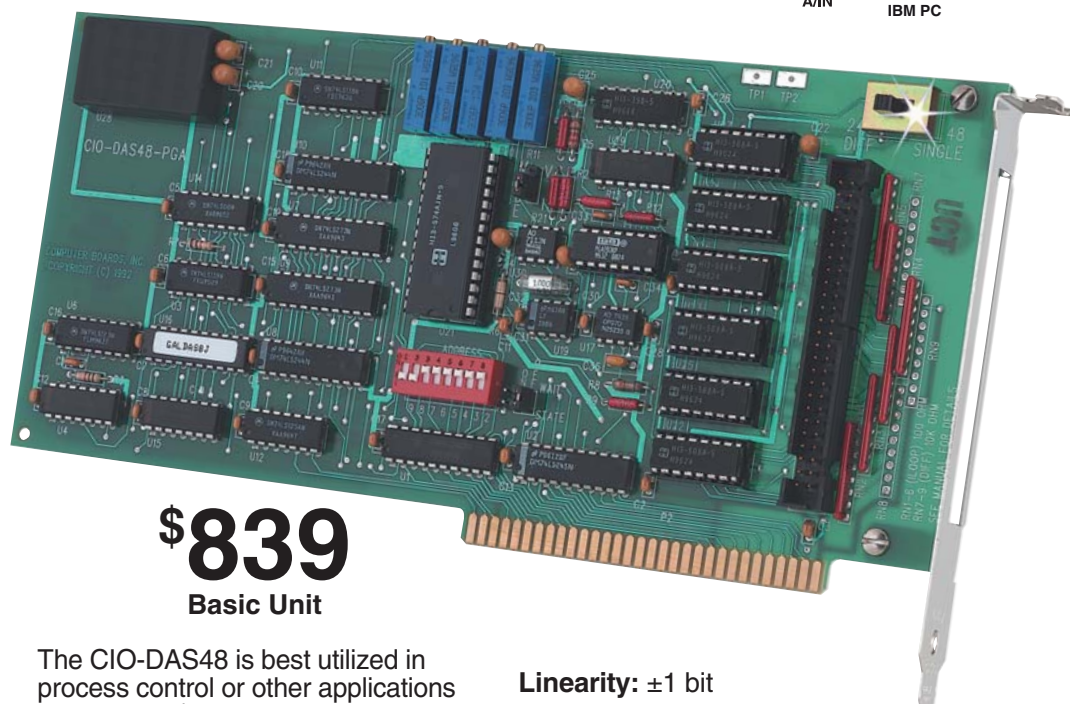


48-Channel, 12-Bit Analog Input Board

Voltage or Current Input with Programmable Gain



\$839
Basic Unit

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 μ sec 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 sWindows 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): ± 10 V, ± 5 V, ± 2.5 V, ± 1.25 V, ± 0.625 V, 0-10 V, 0-5 V, 0-2.5 V, 0-1.25 V

Current Input Ranges:
(CIO-DAS48-I): 4 to 20 mA, 2 to 10 mA, 1 to 5 mA, 0.5 to -2.5 mA

Max. Sample Rate: 20Khz
Impedance for Voltage Input: $>10M \Omega$

Impedance for Current Input: 625 V

Linearity: ± 1 bit
Zero Drift: 10ppm/ $^{\circ}$ C
Gain Drift: 50ppm/ $^{\circ}$ C
Operating Temperature: 0 to 50 $^{\circ}$ C (32 to 122 $^{\circ}$ F)
Storage Temperature: -20 to 70 $^{\circ}$ C (-4 to 158 $^{\circ}$ F)
Weight: 142 g (5oz)

ALL MODELS AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model No.)

| Model No. | Price | Description |
|------------------|-------|--|
| CIO-DAS48-PGA | \$839 | 48-channel voltage input board |
| CIO-DAS48-I | 839 | 24-channel current input board |
| CIO-MINI50 | 69 | 4" x 4" panel, 50 screw terminals and 50-pin connector |
| C50FF-2 | 25 | 2' cable |
| UNIV-DRV | 49 | Universal Software Driver |
| CIO-LABVIEW-DRVR | 49 | Labview Drivers |

Ordering Example: CIO-DAS48-PGA 48-channel A/D board, with CIO-MINI50 terminal panel, C37FF-2 cable and OMEGACARESM 1 year extended warranty for CIO-DAS48-PGA, (adds 1 year to standard 3 year warranty), \$839 + 69 + 25 + 62 = \$995.

omega.co.uk[®]

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622 | Fax +44(0) 161 777 6622 | Sales@omega.co.uk

www.omega.co.uk



UNITED STATES

www.omega.com

1-800-TC-OMEGA

Stamford, CT.

CANADA

www.omega.ca

Laval(Quebec)

1-800-TC-OMEGA

GERMANY

www.omega.de

Deckenpfronn, Germany

0800-8266342

UNITED KINGDOM

www.omega.co.uk

Manchester, England

0800-488-488

FRANCE

www.omega.fr

088-466-342

CZECH REPUBLIC

www.omegaeng.cz

Karviná, Czech Republic

596-311-899

BENELUX

www.omega.nl

0800-099-33-44



More than 100,000 Products Available!

• Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters