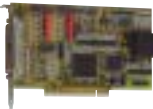


Isolated multifunction data acquisition board, 16-bit



also for **PCI**
see page 50



LabVIEW™



LabWindows/CVI™



DASYLab™



Features

- PCI interface for the 32-bit data bus
- Monitoring program for testing and setting the board functions

Analog inputs

- 16 single-ended/8 differential inputs or 8 single-ended/4 differential inputs
- 16-bit resolution
- Optical isolation 500 V
- Data transfer rate: 100 kHz
- Input voltage: 0-10 V, ± 10 V, 0-5 V, ± 5 V, 0-2 V, ± 2 V, 0-1 V, ± 1 V, 0-20 mA (Option) freely programmable through software for each channel
- Gain PGA x1, x2, x5, x10 freely programmable through software for each channel
- PCI DMA for analog data acquisition
- Overvoltage protection
- Input filter: 160 kHz

Analog acquisition

- Acquisition of one single channel, several channels, several channels through scan list
- Automatic analog acquisition through cyclic timer control
- Acquisition through scan list: up to 16 entries with gain, channel, unipolar/bipolar
- Acquisition triggered through software, timer, external event
- Trigger functions:
 - Software trigger or
 - external trigger: the analog acquisition (Single or scan) is started through signal switching from 0 to 24 V at digital input 0.
- Interrupt: end of single channel, end of multichannel, end of scan list

Analog outputs

- 4 or 8 analog outputs, optical isolation 500 V
- Setting time 30 μ s typ.
- 14-bit resolution (13-bit for 0-10 V)
- Output voltage: ± 10 V, 0-10 V (through software)
- Output voltage after reset: 0 V
- Each output has its own ground line (without optical isolation)
- Driver capacity: 5 mA/500 pF
- Short-circuit protection, EMI filter

Digital

- 4 dig. inputs, 4 dig. outputs, 24 V, isolated

CPCI-3120

16 single-ended/8 differential inputs, 16-bit

8/4 analog outputs, 14-bit

Optical isolation of the inputs and outputs

Automatic analog acquisition

8 digital I/O, 24 V, isolated, timer

Graphical display of the measured data

MTBF: 75 867 hours at 45 °C

Timer, Watchdog

Timer

- As cyclic time counter or as watchdog

Safety features

- Optical isolation 500 V min.
- Creeping distance IEC 61010-1 (VDE411-1)
- Overvoltage protection ± 12 V
- Protection against high-frequency EMI
- Input filter: 160 kHz
- Noise neutralization of the PC supply

EMC tested according to 89/336/EEC

- IEC 61326: electrical equipment for measurement, control and laboratory use

Applications

- Industrial process control
- Industrial measurement and monitoring
- Multichannel data acquisition
- Control of chemical processes
- Factory automation
- Acquisition of sensor data
- Laboratory equipment
- Current measurement
- Instrumentation

Software drivers

A CD-ROM with the following software and programming examples is supplied with the board.

Standard drivers for:

Linux kernel version 2.4.2;
Windows XP/2000/NT/98/95, MS-DOS.
Real-time driver for Windows XP/2000/NT/98/95.

Drivers for the following application software:

LabVIEW 5.01

Samples for the following compilers:

Microsoft VC++ 5.0
Microsoft C 6.0
Borland C++ 5.01
Borland C 3.1
Visual Basic 5.0
Delphi 4
Turbo Pascal 7.0

On request:

RTX • VxWorks • LabWindows/CVI 5.01 • Diadem 6/7
Embedded NT • DasyLab 6/7 • LabWindows/CVI

on request ADDIPACK functions:

Limited write/read function on the I/O signals
Current driver list on the web: www.addi-data.com

