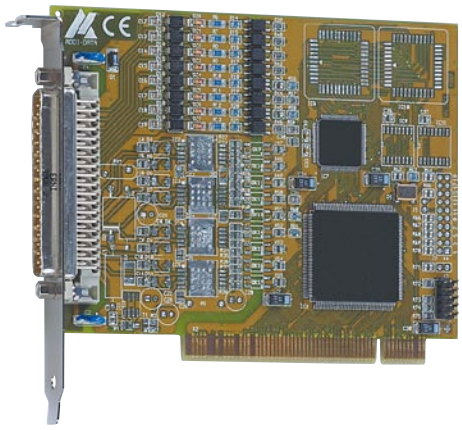
Digital input board, optically isolated, 16 digital inputs, 24 V



APCI-1016

16 digital inputs, 24 V

Optical isolation 1000 V

Input filters

Reverse voltage protection

RoHS 2002/95/EC

PCI 32-bit

LabVIEW™

LabWindows/CVI™

DIAdem

Features

- 16 optically isolated digital inputs, 24 V

Safety features

- Optical isolation 1000 V
- Creeping distance IEC 61010-1
- Reverse voltage protection
- All inputs are filtered
- Protection against fast transients (burst), overvoltage, electrostatic discharge and high-frequency EMI

Applications

- Industrial I/O control
- Signal switching
- Interface to electromechanical relays
- Automatic test equipment
- ON/OFF monitoring of motors, lights...
- Machine interfacing
- ...

Software drivers

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

Standard drivers for:

Linux Kernel version 2.4.2,
Windows Vista (32-bit)/XP/2000.
The board is supplied with the universal software **ADDIPACK** (see page 11).

Drivers for the following software packages:

- LabVIEW 5.01
- LabWindows/CVI
- DIAdem

Samples for the following compilers:

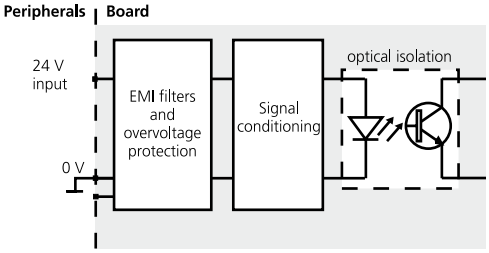
- Microsoft VC++ 5.0
- Borland C++ 5.01
- Visual Basic 5.0
- Delphi 4.0

Supported ADDIPACK functions:

Digital input

Current driver list on the web: www.addi-data.com

Protective circuit for the input channels



Phone: +49 7229 1847-0 info@addi-data.com
Fax: +49 7229 1847-222 www.addi-data.com

ADDI-DATA®
SPIRIT OF EXCELLENCE

Digital input board, optically isolated, 16 digital inputs, 24 V

Specifications

APCI-1016

Digital inputs

Number of inputs:	16
Optical isolation:	Through opto-couplers, 1000 V from PC to peripheral
Nominal voltage:	24 V
Input current at U nominal:	6 mA typ.
Logic input levels:	U nominal: 24 V
UH max.:	30 V/current 9 mA typ.
UH min.:	19 V/current 2 mA typ.
UL max.:	14 V/current 0.7 mA typ.
UL min. at nominal voltage:	0 V/current 0 mA typ.
Signal delay:	70 µs
Maximal input frequency:	5 kHz at nominal voltage

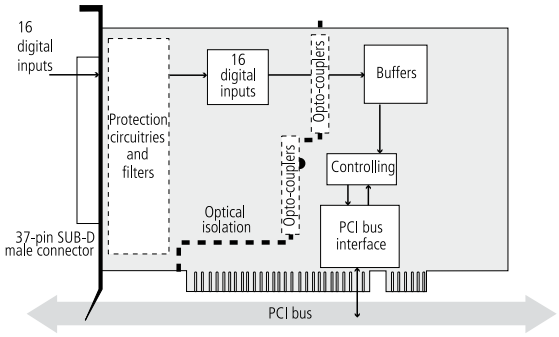
EMC – Electromagnetic compatibility

The product complies with the European EMC directive. The tests were carried out by a certified EMC laboratory in accordance with the norm from the EN 61326 series (IEC 61326). The limit values as set out by the European EMC directive for an industrial environment are complied with. The respective EMC test report is available on request.

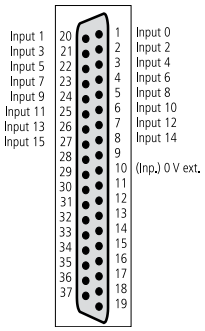
Physical and environmental conditions

Dimensions:	131 x 99 mm (PCI short)
System bus:	PCI 32-bit 5 V acc. to specification 2.1 (PCISIG)
Space required:	1 PCI slot
Operating voltage:	+5 V, ± 5 % from the PC
Max. current consumption:	(+5 V from the PC) 190 mA ± 10 mA typ.
Front connector:	37-pin SUB-D male connector
Temperature range:	0 to 60 °C (with forced cooling)

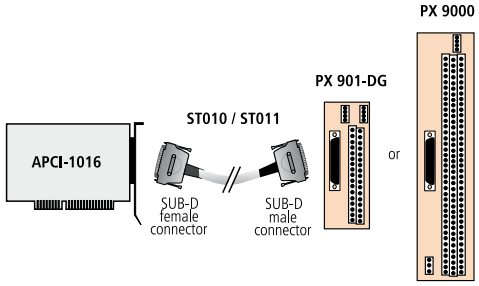
Simplified block diagram



Pin assignment – 37-pin SUB-D male connector



ADDI-DATA connection



APCI-1016
Screw terminal panels PX 9000 and PX 901-DG with cable ST010

Ordering information

APCI-1016
Digital input board, optically isolated, 16 digital inputs, 24 V. Incl. technical description and software drivers

Accessories

PX 901-D: Screw terminal panel, LED status display
PX 901-DG: Screw terminal panel, LED status display, for DIN rail
PX 9000: 3-row screw terminal panel for DIN rail, LED status display
ST010: Standard round cable, shielded, twisted pairs, 2 m
ST011: Standard round cable, shielded, twisted pairs, 5 m

Phone: +49 7229 1847-0 info@addi-data.com
Fax: +49 7229 1847-222 www.addi-data.com

ADDI-DATA®
SPIRIT OF EXCELLENCE