

Digital input board, 32 isolated channels, 24 V



PA 1000

**32 digital inputs, 24 V
incl. 14 interruptible inputs**

Optical isolation 1000 V

Voltage reversal protection

Timer



LabVIEW™



LabWindows/CVI™

Features

Digital inputs

- 32 isolated input channels, 24 V, incl. 14 interruptible
- 1 channel can be dedicated to the monitoring of the 24 V supply voltage (channel 16)
- Address range adjustable through DIP switches
- 16-bit or 8-bit data bus access

Safety features

- Optical isolation 1000 V
- Creeping distance IEC 61010-1 (VDE411-1)
- Voltage reversal protection
- All inputs are filtered
- Protection against fast transients (Burst), overvoltage, electrostatic discharge and high-frequency EMI
- Additional noise suppression on the interrupt lines

EMC tested acc. to 89/336/EEC

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

Applications

- Digital monitoring
- Signal switching
- Optical isolation between PC and peripheral
- Automatic test equipment
- Equipment monitoring
- Machine interfacing
- ...

Software drivers

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

Standard drivers for:

Windows XP/2000/NT/98/95, Windows 3.11, MS-DOS
Real-time drivers for Windows XP/2000/NT

Drivers for the following application software:

LabVIEW 5.01

Samples for the following compilers:

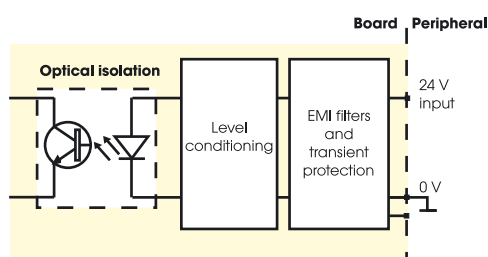
Microsoft VC++ 5.0
Microsoft C 6.0
Borland C++ 5.01
Borland C 3.1
Visual Basic 5.0
Visual Basic 1.0
Delphi 1
Delphi 4
Turbo Pascal 7.0

On request:

Visual Basic 4.0
LabWindows/CVI 5.01

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

Protection circuitry for the input channels



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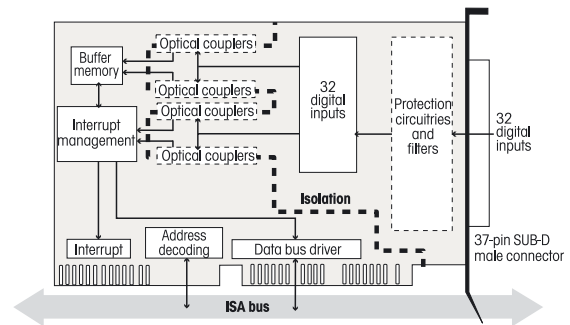


PA 1000

Specifications

Digital inputs	
Number of inputs:	32
Optical isolation:	through optical couplers, 1000 V from the PC to the peripheral
Interruptible inputs:	14 of the 32 digital inputs
Interrupt comparison logic:	AND and OR mode; OR priority
Interrupt lines:	IRQ 3, 5 for XT IRQ 10, 11 12, 14, 15 for AT
Nominal voltage:	24 V external
Input current at 24 V:	6 mA typ.
Logic input level:	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.: 0 V/current 0 mA typ.
Logic input level for the 24 V monitoring: (channel 16, selectable through jumper)	U nominal: 24 V UH max.: 30 V/current 10 mA typ. UH min.: 20 V/current 3 mA typ. UL max.: 18 V/current 1 mA typ. UL min.: 0 V/current 0 mA typ.
Signal delay (at 24 V):	channel 1-16: 70 µs channel 17-32: 40 µs
Maximum input frequency:	5 kHz (at 24 V)
Noise immunity	
Test level:	- ESD: 4 kV - Fields: 10 V/m - Burst: 4 kV - Conducted radio interferences: 10 V
Physical and environmental conditions	
Dimensions:	156 x 99 mm
System bus:	ISA
Place required:	1 XT or AT slot
Operating voltage:	+5 V, ±5 % from PC
Current consumption:	230 mA ±15 mA typ.
Front connector:	37-pin SUB-D male connector
Temperature range:	0 to 60 °C (with forced cooling)

Simplified block diagram



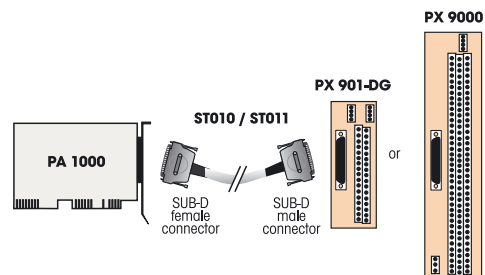
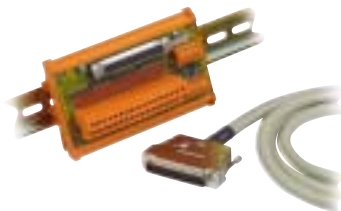
Pin assignment – 37-pin SUB-D male connector

Reserve	19	37	Dig. input 32
Dig. input 31	18	36	Dig. input 30
Dig. input 29	17	35	Dig. input 28
Dig. input 27	16	34	Dig. input 26
Dig. input 25	15	33	Dig. input 24
Dig. input 23	14	32	Dig. input 22
Dig. input 21	13	31	Dig. input 20
Dig. input 19	12	30	Dig. input 18
Dig. input 17	11	29	0 V ext.
0 V ext.	10	28	(0 V ext.)*
0 V ext.)*	9	27	Dig. input 16
Dig. input 15	8	26	Dig. input 14
Dig. input 13	7	25	Dig. input 12
Dig. input 11	6	24	Dig. input 10
Dig. input 9	5	23	Dig. input 8
Dig. input 7	4	22	Dig. input 6
Dig. input 5	3	21	Dig. input 4
Dig. input 3	2	20	Dig. input 2
Dig. input 1	1		

* No signal connected at delivery, intended for current return lines

ADDI-DATA connection

Terminal board PX 901-DG
with cable ST010



ADDINUM PA 1000

PA 1000: Digital input board, 32 isolated channels, 24 V. Incl. technical description and software drivers.

Connection

PX 901-D: Screw terminal board,
LED status display

PX 901-DG: Screw terminal board
for DIN rail, LED status display

PX 9000: 3-row screw terminal board
for DIN rail, LED status display

ST010: Standard round cable, shielded, twisted pairs, 2 m
ST011: Standard round cable, shielded, twisted pairs, 5 m

ORDERING INFORMATION

www.addi-data.com

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