Digital Input Board for PCI DI-128T2-PCI



- * Specifications, color and design of the products are subject to change without notice.
- * The contents in this document are subject to change without notice.
- * Visit the CONTEC website to check the latest details in the document.
- * The information in the data sheets is as of May, 2018.

Features

Unisolated TTL level input, unisolated open-collector output

DI-128T2-PCI has the 128ch of unisolated TTL level inputs whose response speed is 200nsec.

Output rating : max 30VDC, 40mA per pin.

You can use 16 input signals as interrupt request signals.

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This product has a digital filter to prevent wrong recognition of input signals from carrying noise or a chattering.

This product has a digital filter to prevent wrong recognition of input signals from carrying noise or a chattering. All input terminals can be added a digital filter, and the setting can be performed by software.

Windows/Linux compatible driver libraries are attached.

Using the attached driver library API-PAC(W32) makes it possible to create applications of Windows/Linux. In addition, a diagnostic program by which the operations of hardware can be checked is provided.

LabVIEW is supported by a plug-in of dedicated library VI-DAQ. Using the dedicated library VI-DAQ makes it possible to create each application for LabVIEW.

Packing List

Board [DI-128T2-PCI] ...1 First step guide ... 1 Disk *1 [API-PAC(W32)] ...1 Warranty Certificate ...1 Serial Number Label...1

*1 The bundled disk contains the driver software and User's Guide

This product is a PCI bus-compliant interface board used to provide a digital signal input function on a PC.

DI-128T2-PCI features 128 unisolated TTL level inputs. You can use 16 input signals as interrupt inputs. In addition, the digital filter function to prevent wrong recognition of input signals is provided.

Windows/Linux driver is bundled with this product.

Possible to be used as a data recording device for LabVIEW, with dedicated libraries.

Specification		
Item	Specification	
nput		
Input format	Unisolated TTL level input (Negative logic *1)	
Number of input signal channels	128channels (16channels of them are available for interrupts) (common)	
Input resistance	Pull up 10k Ω (1TTL load)	
Interrupt	16 interrupt input signals are arranged into a single output of interrupt signal INTA. An interrupt is generated at the rising edge (HIGH-to-LOW transition) or falling edge (LOW-to-HIGH transition).	
Response time	200nsec within	
Common		
External supply capable current (Max.)	5VDC 1A *3	
Allowable distance of signal extension	Approx. 1.5m (depending on wiring environment)	
I/O address	Any 32-byte boundary	
Interrupt Level	1 level use	
Max. board count for connection	16 boards including the master board	
Power consumption (Max.)	5VDC 350mA *4	
Operating condition	0 - 50°C, 10 - 90%RH (No condensation)	
Bus specification	PCI (32bit, 33MHz, Universal key shapes supported *2)	
Dimension (mm)	121.69(L) x 105.68(H)	
Connector	100 pin 0.8mm pitch connector [F (female) type] x 2 HDRA-E100W1LFDT1EC-SL+[HONDA TSUSHIN KOGYO CO., LTD.] equivalent to it	
Weight	100g	

*1 Data "0" and "1" correspond to the High and Low levels, respectively.

- *2 This board requires power supply at +5V from an expansion slot (it does not work on a machine with a +3.3V power supply alone).
- *3 Because it supplies the +5V power supply from an expansion slot, the external supply capable current depends on the PC.
- *4 The power consumption does not include it in the external supply capable current.



Support Software

Windows version of digital I/O driver API-DIO(WDM)/ API-DIO(98/PC)

[Stored on the bundled disk driver library API-PAC(W32)] The API-DIO(WDM) is the Windows version driver library software that provides products in the form of Win32 API functions (DLL). Various sample programs such as Visual Basic and Visual C++, etc and diagnostic program *1useful for checking operation is provided.

For more details on the supported OS, applicable language and new information, please visit the CONTEC's Web site.

Linux version of digital I/O driver API-DIO(LNX)

[Stored on the bundled disk driver library API-PAC(W32)] The API-DIO(LNX) is the Linux version driver software which provides device drivers (modules) by shared library and kernel version. Various sample programs of gcc are provided.

For more details on the supported OS, applicable language and new information, please visit the CONTEC's Web site.

LabVIEW-support data acquisition library DAQfast for LabVIEW (Available for downloading (free of charge) from the CONTEC web site.)

This is a data collection library to use in the LabVIEW by National Instruments. With Polymorphic VI, our design enables a LabVIEW user to operate seamlessly. Our aim is that the customers to perform easily, promptly what they wish to do.

For more details on the library and download of DAQfast for LabVIEW, please visit the CONTEC's Web site.

Data acquisition library for LabVIEW VI-DAQ (Available for downloading (free of charge) from the CONTEC web site.) This is a VI library to use in National Instruments LabVIEW.

VI-DAQ is created with a function form similar to that of LabVIEW's Data Acquisition VI, allowing you to use various devices without complicated settings.

For more details on the library and download of VI-DAQ, please visit the CONTEC's Web site.

Cable & Connector (Option)

Shielded Cable With Two 100pin Connector	PCB100PS-0.5 (0.5m)	
	PCB100PS-1.5 (1.5m)	
Connection Conversion Shield Cable (100P→96P)	PCB100/96PS-1.5(1.5m)	
Flat Cable with One 100-Pin Connector	PCA100P-1.5(1.5m)	
Connection Conversion Shield Cable (100P \rightarrow 37P D-SUB x 2)		
	PCB100WS-1.5(1.5m)	

*If using both the CNA and CNB connectors, two cable sets are required.

Accessories (Option)

Screw Terminal (M3 x 100P)	EPD-100A *1*4*6
Screw Terminal (M3 x 96P)	EPD-96A *2*4*6
Screw Terminal (M3.5 x 96P)	EPD-96 *2*4
Screw Terminal	DTP-64(PC) *2*4
Connector Conversion Board (96P \rightarrow 37P x 2)	CCB-96 *2*4
Signal Monitor for Digital I/O (64Bits)	CM-64L *2*4
Screw Terminal (M3 x 37P)	EPD-37A *3*5*6
Screw Terminal (M3.5 x 37P)	EPD-37 *3*5
General Purpose Terminal	DTP-3A *3*5

Screw Terminal

Signal Monitor for Digital I/O (32Bits)

- *1 PCB100PS-0.5, 1.5 optional cable is required separately.
- *2 PCB100/96PS-1.5 optional cable is required separately.
 *3 PCB100WS-1.5 optional cable is required separately.
- *4 If using both the CNA and CNB connectors, two each of the terminal and cable sets are required.
- *5 If using both the CNA and CNB connectors, two cable sets are required.
- You will also require sufficient terminal blocks for the number of I/O points you are using. *6 "Spring-up" type terminal is used to prevent terminal screws from falling off.
- * Check the CONTEC's Web site for more information on these options.

On-board connector wiring

Connector shape

The on-board interface connector (CNA, CNB) is used when connecting this product and the external devices.



Connector Pin Assignment

Pin Assignments of Interface Connector (CNA, CNB)



* I-00 - I-17 can be used as interrupt signal.

I-00 - I-F7	128 input signal pins. Connect output signals from the external device to these pins.
Vcc	Output +5V. The current that can be supplied is 1A(Max.). The permitted current per pin of connector is 0.3A. Connect the number of pins required to supply the total current.
GND	This pin is connected to GND in the slot.
N.C.	This pin is left unconnected.

Ver.1.01

DTP-4A *3*5

CM-32L *3*5

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PCB100WS

The figure below shows the correspondence between the option cable pins and signals.

< Pin assignments for connecting a PCB100/96PS or PCB100WS to the DI-128T2-PCI >



 The numbers in square brackets [] are pin numbers designated by HONDA TSUSHIN KOGYO CO., LTD.



