



Universal PCI, 8-ch Optically Isolated Digital Input and 8 Relay Output Board

■ Introduction

The PISO-P8R8U Universal PCI card supports the 3.3 V/5 V PCI bus, and offers 8 optically-isolated Digital Input channels and 8 electromechanical Relay Output channels. The DI channels provide 5000 Vrms isolation protection that allows the input signals to be completely floated so as to prevent ground loops and isolate the host computer from potentially damaging voltage spikes. The Relay Output channels are used where it is necessary to control a circuit using a low-power signal, with complete electrical isolation between the control and the controlled circuits, or where several circuits must be controlled by a single signal.

The PISO-P8R8U can be used in a variety of applications, such as controlling the ON/OFF state of external devices, driving external relays or small power switches, activating alarms, contact closure, or sensing external voltages or switches, etc.

The PISO-P8R8U cards also include an onboard Card ID switch that enables the board to be recognized via software if two or more PISO-P8R8U cards are installed in the same computer. The PISO-P8R8U is designed as a direct replacement for the PISO-P8R8 without requiring any modification to the software or the driver.

Pin Assignments

Pin Assignment	Terminal	No.	Pin Assignment
NO_0	01		
COM_0	02	20	NO_3
N/A	03	21	COM_3
NO_1	04	22	N/A
COM 1	05	23	NO_4
N/A	06	24	COM_4
, NO_2	07	25	NO_5
COM 2	08	26	COM_5
N/A	09	27	NO_6
NO 7	10	28	COM_6
COM_7	11	29	N/A
DIA 0	12	30	DIB_0
DIA_0	13	31	DIB_1
DIA_1 DIA_2	14	32	DIB_2
DIA_2	15	33	DIB_3
DIA_5	16	34	DIB_4
_		35	DIB_5
DIA_5	17	36	DIB_6
DIA_6	18	37	DIB_7
DIA_7	19		_
			CON1

A Features

- Universal PCI (3.3 V/5 V) Interface
- Supports Card ID (SMD Switch)
- 8-channel Electromechanical Relay Output
- 8-channel Optically-isolated Digital Input
- AC Signal Input with Filter
- Selectable DC Signal Input Filter
- 5000 Vrms Photo-isolation Protection
- Onboard Relay Output Status LED Indicators











Software

Drivers

✓ 32/64-bit Windows 10/11

✓ Linux

Sample Programs

DOS Lib and TC/BC/MSC Demo

VB/VC/Delphi/VB.NET/C#.NET/VC.NET/LabVIEW/Python/MATLAB

Hardware Specifications

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Hardware		
Card ID	Yes (4-bit)	
Connector	Female DB37 x 1	
Digital Input		
Channels	8	
Туре	Photocoupler (Sink and Source)	
Response Speed	Without Filter: 50 kHz (Typical) With Filter: 0.455 kHz(Typical)	
Trigger Mode	Static Update	
Wet Contact, ON Voltage Level	AC/DC 5 ~ 24 V (AC 50 ~ 1 kHz)	
Wet Contact, OFF Voltage Level	AC/DC 0 ~ 1 V	
Isolation	5000 Vrms	
Relay Output		
Channels	8	
Туре	SPST N.O.(Form A)	
Contact Rating	AC: 250 V @ 1.6 A DC: 30 V @ 5 A	
Operate Time	6 ms (Typical)	
Release Time	3 ms (Typical)	
Electrical Endurance	100,000 ops.	
Mechanical Endurance	2,000,000 ops.	
PC Bus		
Туре	3.3 V/5 V Universal PCI, 32-bit, 33 MHz	
Data Bus	8-bit	
Power		
Consumption	300 mA @ +5 V	
Mechanical		
Dimensions (mm)	105 x 149 x 22 (W x L x D)	
Environmental		
Operating Temperature	0 ~ +60°C	
Storage Temperature	-20 ~ +70°C	
Humidity	5 ~ 85% RH, Non-condensing	

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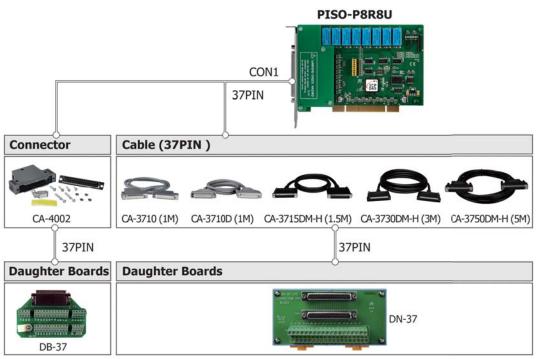
■ Ordering Information

PCI-P8R8U CR

Universal PCI, 8-ch Optically Isolated Digital Input and 8 Relay Output Board (RoHS) Includes one CA-4002 D-Sub connector.

Accessories

0	CA-3710 CR	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (45°)) (RoHS)
0	CA-3710D CR	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (180°)) (RoHS)
4	CA-3715DM-H CR	DB-37 Male-Male Cable, 1.5 M, 180° (RoHS)
2	CA-3730DM-H CR	DB-37 Male-Male Cable, 3.0 M, 180° (RoHS)
2	CA-3750DM CR	DB-37 Male-Male Cable, 5.0 M, 180° (RoHS)
0	CA-3750DM-H CR	DB-37 Male-Male Cable, 5.0 M, 180° (RoHS)
1	CA-4002 CR	37-pin Male D-sub connector with plastic cover (RoHS)
	DB-37 CR	Directly connect signal to D-sub 37-pin connector (RoHS)
	DN-37 CR	DIN Rail Mounting 37-pin Connector (RoHS)
	CA-3750DM CR CA-3750DM-H CR CA-4002 CR DB-37 CR	DB-37 Male-Male Cable, 5.0 M, 180° (RoHS) DB-37 Male-Male Cable, 5.0 M, 180° (RoHS) 37-pin Male D-sub connector with plastic cover (RoHS) Directly connect signal to D-sub 37-pin connector (RoHS)



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