

PISO-P8R8U

Universal PCI, 8-ch Isolated DI and 8 Relay Output Board

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

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.

Software

Drivers

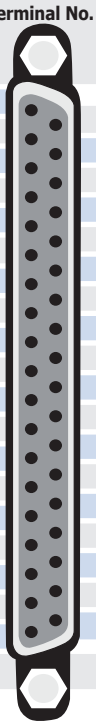
- ☑ 32/64-bit Windows 10/11
- ☑ Linux

Sample Programs

- ☑ DOS Lib and TC/BC/MSC Demo
- ☑ VB/VC/Delphi/VB.NET/C#.NET/VC.NET/LabVIEW/Python/MATLAB

Pin Assignments

Pin Assignment	Terminal No.		Pin Assignment
NO_0	01	20	NO_3
COM_0	02	21	COM_3
N/A	03	22	N/A
NO_1	04	23	NO_4
COM_1	05	24	COM_4
N/A	06	25	NO_5
NO_2	07	26	COM_5
COM_2	08	27	NO_6
N/A	09	28	COM_6
NO_7	10	29	N/A
COM_7	11	30	DIB_0
DIA_0	12	31	DIB_1
DIA_1	13	32	DIB_2
DIA_2	14	33	DIB_3
DIA_3	15	34	DIB_4
DIA_4	16	35	DIB_5
DIA_5	17	36	DIB_6
DIA_6	18	37	DIB_7
DIA_7	19		



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Hardware Specifications

Hardware	
Card ID	Yes (4-bit)
Connector	Female DB37 x 1
Digital Input	
Channels	8
Type	Wet Contact , Photocoupler
Sink/Source (NPN/PNP)	Sink/Source
ON Voltage Level	AC/DC 5 ~ 24 V (AC 50 ~ 1 kHz)
OFF Voltage Level	AC/DC 0 ~ 1 V
Response Speed	Without Filter: 50 kHz (Typical) With Filter: 0.455 kHz(Typical)
Trigger Mode	Static Update
Isolation	5000 Vrms
Relay Output	
Channels	8
Type	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	
Type	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)
Environment	
Operating Temperature	0 ~ +60°C
Storage Temperature	-20 ~ +70°C
Humidity	5 ~ 85% RH, Non-condensing

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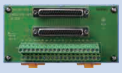
Applications

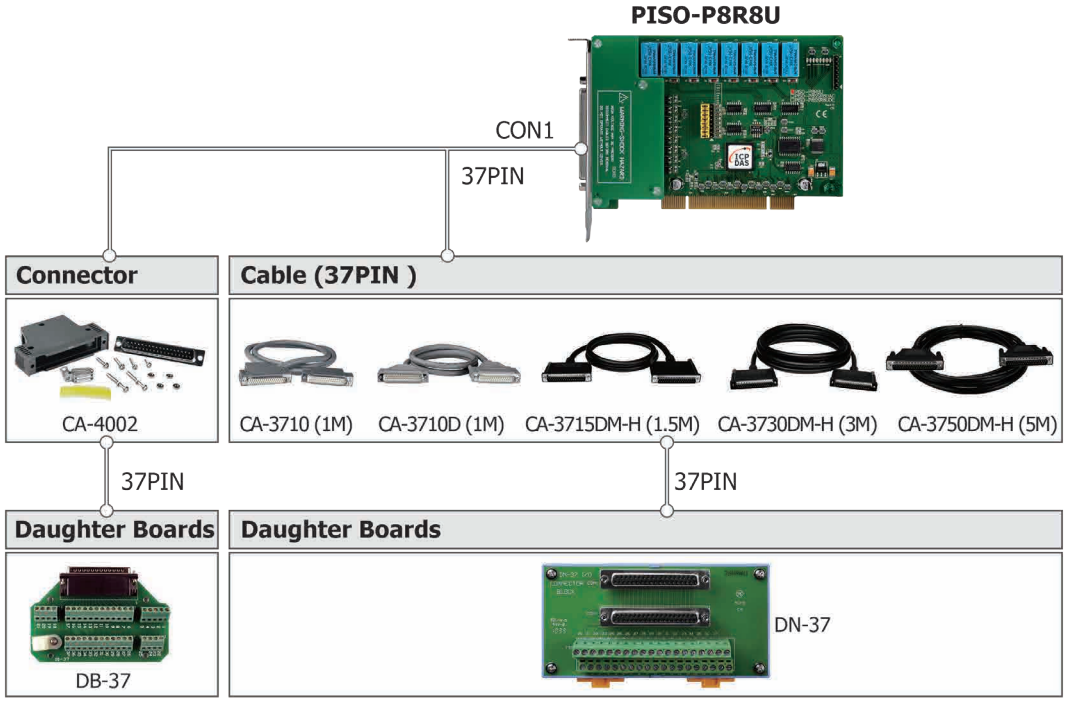
- Factory automation
- Product test
- Laboratory automation

Ordering Information

PCI-P8R8U CR	Universal PCI, 8-ch Isolated DI and 8 Relay Output Board (RoHS) Includes one CA-4002 D-Sub connector

Accessories

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



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