

PISO-725U

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



Features

- Universal PCI (3.3 V/5 V) Interface
- 8-channel Electromechanical Relay Output
 - Supports Status Readback
 - Onboard Status LED Indicators
- 8-channel Optically-isolated Digital Input
 - 3750 V_{rms} Photo-isolation Protection
 - State-changed Interrupt for all Digital Inputs
 - Jumper-selectable Isolated or Non-isolated Digital Inputs

Introduction

The PISO-P725U is a Universal PCI card supporting both the 3.3 V and 5 V PCI bus, and provides 8 isolated or non-isolated Digital Input channels and 8 electromechanical Relay Output channels.

The DI channels can be set to either isolated or non-isolated via a hardware jumper, and each channel will generate an interrupt signal if the state is changed, which is very useful when monitoring contact openings/closures as it is not necessary to continuously poll the inputs. The isolated DI channels use a short optical transmission path to transfer an electronic signal between elements of a circuit and keep them electrically isolated. With 3750 V_{rms} isolation protection, the DI channels allow 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. All relays are de-energized (switched off) during power-on, and support ON/OFF status read back.

The PISO-725 can be used in a variety of applications, including contact closure, external voltage sensing, load sensing and I/O control, etc.

Software

Drivers

- 32/64-bit Windows XP/2003/2008/7/8/10
- Linux
- DASyLab

Sample Programs

- DOS Lib and TC Demo
- LabVIEW Toolkit
- VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET/MATLAB Demo

Hardware Specifications

Digital Input	
Channels	8
Isolation Voltage	3750 V _{rms} (Photocoupler)
Input Voltage	Logic 0: 0 ~ +1 V, Logic 1: +9 ~ +24 V
Input Impedance	1.2 KΩ, 1 W
Response Speed	4 kHz (Typical)
Digital Output	
Channels	8
Relay Type	Form C
Contact Rating	AC: 0.3 A/120 V, DC: 1 A/30 V
Operating Time	5 ms (Typical)
Release Time	10 ms (Typical)
Lifetime	Mechanical: 100,000 ops. (30 V/1 A)
General	
Bus Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz
Card ID	Yes (4-bit)
I/O Connector	Female DB37 x 1
Power Consumption	300 mA @ +5 V
Operating Temperature	0 ~ 60 °C
Humidity	5 ~ 85% RH, non-condensing

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
NO_0	01	20 NO_3
COM_0	02	21 COM_3
NC_0	03	22 NC_3
NO_1	04	23 NO_4
COM_1	05	24 COM_4
NC_1	06	25 NO_5
NO_2	07	26 COM_5
COM_2	08	27 NO_6
NC_2	09	28 COM_6
NO_7	10	29 GND
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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Ordering Information

PISO-725U CR	Universal PCI, 8-channel Isolated Digital Input and 8-channel Relay Output Board (RoHs). Includes one CA-4002 D-sub Connector.
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