PISO-725U

Universal PCI, 8-ch Relay Output and 8-ch Isolated DI 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 Vrms Photo-isolation Protection
  - State-changed Interrupt for all Digital Inputs
  - Jumper-selectable Isolated or Non-isolated Digital Inputs

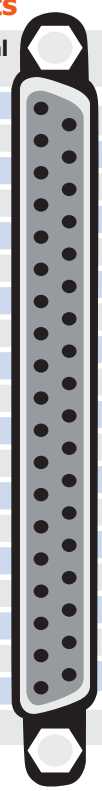
Introduction

The PISO-725U universal PCI card supports 3.3 V/5 V PCI bus. These cards contain 8 electromechanical Relay Output channels and 8 isolated or non-isolated DI 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 for contact closures/openings 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 Vrms 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 damaging voltages. 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 controlled circuits, or where several circuits must be controlled by one signal. All relays are de-energized (switched off) during power-on, and support ON/OFF status read back. The PISO-725U can be used in a variety of applications, including contact closure, external voltage sensing, load sensing and I/O control, etc.

The PISO-725U also adds a Card ID switch on-board. Users can set Card ID and then recognizes the board by the ID via software when using two or more cards in one computer.

Pin Assignments

Pin Assignment	Terminal	No.	Pin Assignment
NO_0	01	20	CM_0
NO_1	02	21	CM_1
NO_2	03	22	CM_2
NO_3	04	23	CM_3
NO_4	05	24	CM_4
NO_5	06	25	CM_5
NO_6	07	26	CM_6
NO_7	08	27	CM_7
N/A	09	28	N/A
N/A	10	29	N/A/GND
N/A	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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Software

Drivers

- [x] 32/64-bit Windows 10/11
- [x] Linux
- [x] DASYLab

Sample Programs

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

Applications

- Factory automation
- Product test
- Laboratory automation

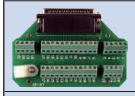
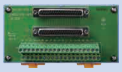
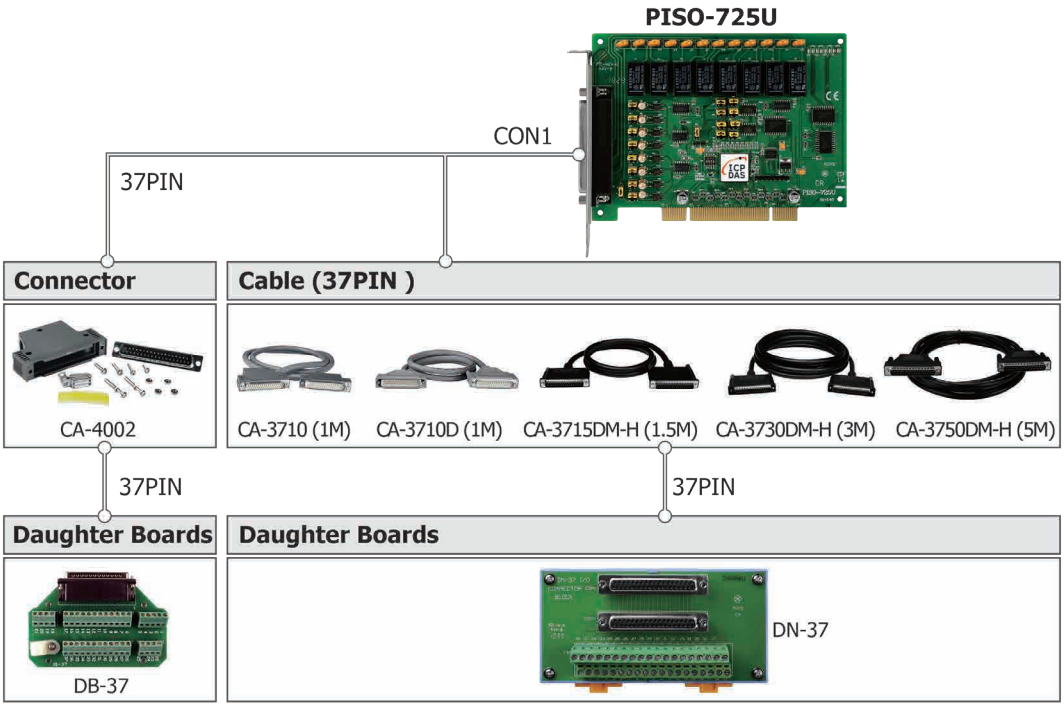
Hardware Specifications

Hardware	
Connector	Female DB37 x 1
Digital Input	
Channels	8 (Photocoupler)
Sink/Source (NPN/PNP)	Sink
ON Voltage Level	9 ~ 24 V
OFF Voltage Level	0 ~ 1 V
Response Speed	4 kHz (Typical)
Trigger Mode	Static Update
Isolation	3750 Vrms (Using external power)
Relay Output	
Channels	8
Type	Form C
Contact Rating	AC : 0.3 A/120 V , DC : 1 A/30 V
Operate Time	5 ms (Typical)
Release Time	10 ms (Typical)
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)	110 x 150 x 22 (W x L x D)
Environment	
Operating Temperature	0 ~ +60°C
Storage Temperature	-20 ~ +70°C
Humidity	5 ~ 85% RH, Non-condensing

Ordering Information

PISO-725U CR	Universal PCI, 8-ch Relay Output and 8-ch Isolated DI 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)