

## I/O Cards

### PISO-DA2U

Universal PCI, 2-ch Isolated Analog Output Board



### Features ▶▶▶

- Universal PCI (3.3 V/5 V) interface
- 3000 Vdc isolation protection (Bus-Type and CH-CH)
- Unipolar or Bipolar analog output
- Software calibration
- Card ID function
- Drop-in replacement for the PISO-DA2
- 2-ch, 12-bit analog output
- Two pacer timer interrupt sources
- Double buffered D/A batch

### Introduction

The PISO-DA2U has 2 analog output channels with high-voltage isolation protection and provides universal PCI interface (3.3 V/5 V). The PISO-DA2U is fully compatible with the PISO-DA2, and users can replace the PISO-DA2 by the PISO-DA2U directly without software/driver modification.

The built-in high-quality isolation components on the PISO-DA2U make it featuring 3750 Vdc bus-typed and channel-channel isolation, and offer durable abilities. For the PISO-DA2U, the voltage output ranges are  $\pm 10$  V,  $\pm 5$  V,  $0 \sim +10$  V and  $0 \sim +5$  V and the current output ranges are  $0 \sim 20$  mA and  $4 \sim 20$  mA. In addition, the PISO-DA2U also features the following advantages by ICP DAS's innovation:

#### 1. Accurate and easy-to-use calibration:

ICP DAS provides the software calibration instead of the manual calibration so that no jumpers and trim-pots are required anymore. The calibration data can be saved in the EEPROM for long-term use.

#### 2. Channel to channel configuration:

Each channel can be individually configured as voltage or current output with different output range.

#### 3. Card ID:

ICP DAS provides the card ID function for PISO-DA2U. Users can set a card ID for each card so that when more than two boards are used in a computer at the same moment, users can still instantly recognize them one by one.

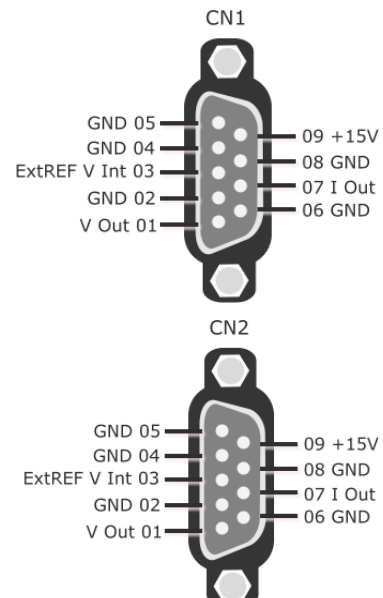
### Software

- DOS Lib and TC/BC/MSC sample program (with source codes)
- VB/VC/Delphi/BCB/VB.NET/C#.NET sample programs with source codes
- DLL and OCX SDK for 32-bit and 64-bit Windows XP/2003/Vista/2008/7
- Supports LabVIEW and Linux

### Hardware Specifications

Analog Output	
Channels	2
Isolation voltage	3750 V (Bus-Type, CH-to-CH)
Resolution	12-bit
Accuracy	0.015% of FSR $\pm 1/2$ LSB @ 25 °C, $\pm 10$ V
Output Range	Voltage: $\pm 10$ V, $\pm 5$ V, $0 \sim 10$ V, $0 \sim 5$ V Current: $0 \sim 20$ mA, $4 \sim 20$ mA
Output Driving	$\pm 5$ mA
Slew Rate	0.3 V/ $\mu$ s
General	
Bus Type	Universal PCI, 3.3 V and 5 V, 33 MHz, 32-bit, Plug and Play
Connectors	Male DB9 x2
Power Consumption	1350 mA @ +5 V
Operating Temperature	0 °C $\sim$ +60 °C
Storage Temperature	-20 °C $\sim$ +70 °C
Humidity	5 $\sim$ 85% RH, non-condensing

### Pin Assignments



### Ordering Information

PISO-DA2U CR	Universal PCI, Isolated 12-bit D/A Board (RoHS) Includes two CA-PC09M D-Sub connectors.
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For latest driver update information please refer to [www.spectra.de/driver](http://www.spectra.de/driver)