



Universal PCI, 2-ch Isolated Analog Output Board

# **■** Introduction

The PISO-DA2U has 2 Analog Output channels with high-voltage isolation protection and is based on the Universal PCI interface (3.3 V/5V). The PISO-DA2U is fully compatible with the PISO-DA2, and is designed as a direct replacement without requiring any modification to the software or the driver.

The built-in high-quality isolation components on the PISO-DA2U provide 3750 VDC bus-type and channel-to-channel isolation, and offer durable abilities. The voltage output range for the PISO-DA2U can be set to  $\pm 10$  V,  $\pm 5$  V, 0 to 10 V, or 0 to 5 V, and the current output range can be either 0 to 20 mA or 4 to 20 mA.

In addition, the PISO-DA2U also features the following innovative advantages:

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

ICP DAS provides a software calibration function rather than manual calibration so that jumpers and trim-pots are no longer required for calibration, and 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 either voltage or current output and can be set to a different output range.

### 3. Card ID:

ICP DAS has also included an onboard Card ID switch on the PISO-DA2U that enables the board to be recognized via software if two or more boards are installed in the same computer.

# **■ Pin Assignments**

Pin Assignment	Tei	rminal	No.	Pin Assign- ment	Pin Assignment	Te	rminal	No.	Pin Assign- ment
GND	05		09	+15 V	GND	05		09	+15 V
GND	04				GND	04			
ExtREF V Int	03		08	GND	ExtREF V Int	03		08	GND
GND	02		07	I OUT	GND	02		07	I OUT
V OUT	01	ان	06	GND	V OUT	01	ان	06	GND
				CON1					CON2
		U					U		

# ■ Universal PCI (3.3 V/5 V) Interface ■ 12-bit, 2-channel Analog Output □ 3750 VDC Bus and Channel Isolation Protection □ 3000 VDC Power Isolation Protection □ Unipolar or Bipolar Analog Output □ Software Calibration □ Two Timer-triggered Interrupt Sources □ Calibration data stored in EEPROM □ Double-buffered DA Latch ■ Supports Card ID (SMD Switch)

## Software

Drivers	
32/64-bit Windows XP/2003/2008/7/8/10	Linux
Sample Programs	
✓ DOS Lib and TC/BC/MSC Demo	✓ LabVIEW Toolkit
VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET	/MATLAB Demo

# Hardware Specifications

Hardware			
Card ID	Yes (4-bit)		
Connector	Male DB9 x 2		
Analog Output			
Channels	2		
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		
Resolution	12-bit		
Accuracy	0.015% of FSR ±1/2 LSB @ 25 °C, ±10 V		
Voltage Output Capability	±5 mA		
Response Time	500 kHz		
Slew Rate	0.15 V/μs		
Isolation	3750 VDC (Bus Type, CH-to-CH)		
Operation Mode	Static Update		
PC Bus			
Туре	3.3 V/5 V Universal PCI, 32-bit, 33 MHz		
Data Bus	8-bit		
Power			
Consumption	1350 mA @ +5 V		
Mechanical			
Dimensions (mm)	98 x 189 x 22 (W x L x D)		
Environmental			
Operating Temperature	0 ~ +60°C		
Storage Temperature	-20 ~ +70°C		
Humidity	5 ~ 85% RH, Non-condensing		

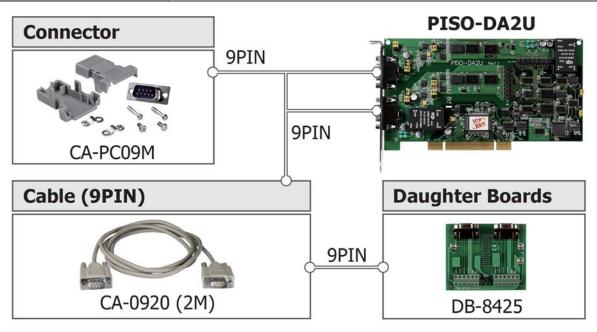
# Ordering Information

PISO-DA2U CR	Universal PCI, 2-ch Isolated Analog Output Board (RoHS) Includes two CA-PC09M D-Sub connectors	
PISO-DA2U/S Universal PCI, 2-ch Isolated Analog Output Board (RoHS)		

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# Accessories

CA-PC09M	9-pin Male D-sub connector with plastic cover
CA-0920	9-pin Male-Male D-sub cable, 2 M
DB-8425	Provided for easy wire connection with the controlled device or equipment



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