



Making Data Acquisition Easy

CAGE/NCAGE Code: 3FNFO

PC Analog Output Boards

Machine control is usually done using a PLC or an HMI control. Data from the PLC or HMI, then can be shared to a PC using Ethernet or Serial communication. PLC and HMI hardware can be costly and software to program them can add additional cost. For simple applications which only require a few IO or larger applications which require 100's of IO, can be run directly from a PC. SCADA and Datalogging software also have the ability to program time based or logic based controls.

Utilizing these features often satisfy the control and monitoring functions required. Since the data will eventually be passed or shared to the PC anyways, why not just incorporate the controls into the PC software?

By utilizing the PC's built in PCI or PCI Express slots or adding additional slots can sometime be cheaper than the cost of adding a controller or HMI. In addition, maintenance and troubleshooting can be done on the same machine as development.

Our PCI and PCI Express IO cards offer a wide range of combinations of Digital and Analog channels. They offer plug and play installation on most Windows PC's and Linux drivers are also available for most.

Analog Output boards provide the ability to control analog devices such as lights and HVAC for building automation applications. We offer both PCI and PCI Express solutions, which come in 4, 8, and 16 analog output channels per board. These boards also feature analog input and Digital IO built in which can monitor statuses and trigger alarms.

PCI Solutions:

PIO-DA4U/DA8U/DA16U

https://www.icpdas-usa.com/pci_analog_output_boards.html

PCI Express Solutions:

PEX-DA4/DA8/DA16

https://www.icpdas-usa.com/pci_express.html



Making Data Acquisition Easy

CAGE/NCAGE Code: 3FNFO

Specifications

Model Name	PEX-DA4/DA8/DA16	PIO-DA4U/DA8U/DA16U	PISO-DA4U/DA8U/DA16U
Analog Outputs			
Isolation Voltage	N/A		2500 V (Bus Type)
Compatibility	4/8/16 independent		
Resolution	14-bit		
Accuracy	0.04% of FSR \pm 2 LSB @ 25 °C, \pm 10 V		
Output Range	Voltage: +/- 10 V Current: 0 ~ 20 mA		
Output Driving	+/- 5 mA		
Slew Rate	0.71 V/ μ s		
Output Impedance	0.1 Ω max.		
Operating Mode	Software		
Digital Inputs			
Channels	16		
Compatibility	5 V/TTL		
Input Voltage	Logic 0: 0.8 V max. Logic 1: 2.0 V min.		
Response Speed	200 kHz	1.0 MHz (Typical)	
Digital Outputs			
Channels	16		
Compatibility	5 V/CMOS	5 V/TTL	
Output Voltage	Logic 0: 0.1 V max. Logic 1: 4.4 V min.	Logic 0: 0.4 V max. Logic 1: 2.4 V min.	
Output Capability	Sink: 6 mA @ 0.33 V Source: 6 mA @ 4.77 V	Sink: 2.4 mA @ 0.8 V Source: 0.8 mA @ 2.0 V	
Response Speed	200 kHz	1.0 MHz (Typical)	
Timer/Counter			
Channels	3		
Resolution	16-bit		
Compatibility	5 V/TTL		
Reference Clock	Internal: 4 MHz		
General			
Bus Type	PCI Express x 1	3.3 V/5 V Universal PCI, 32-bit, 33 MHz	
Data Bus	8-bit		
Card ID	Yes(4-bit)	Yes(4-bit) for Version 1.1 or above	Yes(4-bit)
I/O Connector	Female DB37 x 1 20-pin Box header x 2		
Dimensions (L x W)	188 mm x 97 mm	188 mm x 97 mm (Version 1.1 or above)	180 mm x 97 mm
Power Consumption	750 mA @ +3.3 V 350 mA @ +12 V (PEX-DA4) 400 mA @ +12 V (PEX-DA8) 550 mA @ +12 V (PEX-DA16)	600 mA @ +5 V (PIO-DA4U) 800 mA @ +5 V (PIO-DA8U) 1400 mA @ +5 V (PIO-DA16U)	2200 mA @ +5 V (PISO-DA4U) 2400 mA @ +5 V (PISO-DA8U) 3000 mA @ +5 V (PISO-DA16U)

If you have any questions concerning any of our PC IO boards, please contact us via email or phone. We look forward to hearing from you.