

# PCI-8136

## 6-CH Quadrature Encoder and Multi-function I/O Card

### Features

- 32-bit PCI bus, plug & play
- 6-CH 32-bit industrial counter for three kinds of differential pulse trains
  - A/B phase
  - CW/CCW
  - Pulse/Direction
- 6-CH differential pulse generators up to 500 kHz
- 6-CH 32-bit position compare with interrupt function
- 6-CH 16-bit  $\pm 10$  V analog output
- 6-CH 12-bit 133 kHz analog single-ended input
- 19-CH opto-isolated DI, 7-CH open collector DO
- Digital I/Os and counters are 2500 V<sub>RMS</sub> isolated
- One 24-bit programmable timer with interrupt



### Introduction

The PCI-8136 is a high performance industrial counter and multi-function I/O card. What makes it special is the ADPIO function, which is the abbreviation of Analog/Digital/Pulse Input/Output.

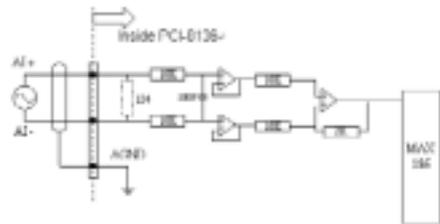
- Analog Input: 6 channels
- Analog Output: 6 channels
- Digital Input: 19 channels
- Digital Output: 7 channels
- Pulse Input (Industrial Counter): 6 channels
- Pulse Output (Pulse Generator): 6 channels

Besides, PCI-8136 provides some useful functions for industrial applications.

- One 24-bit programmable interrupt timer with 33 MHz base clock
- Position compare: 6 channels

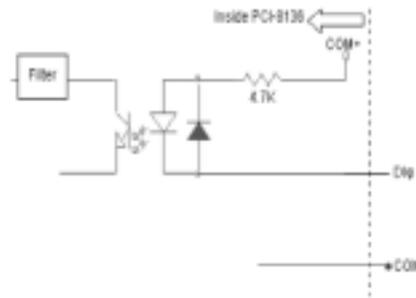
#### Analog Input

The PCI-8136 provides 6 12-bit A/D converter channels. The analog source is selectable for each channel to be  $\pm 10$  VDC (Default) or 0-20 mA by soldering a 124  $\Omega$  DIP resistor which is shipped with PCI-8136.



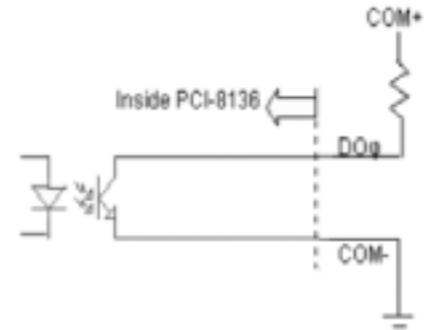
#### Digital Input

The PCI-8136 provides 19 digital inputs with 2500 V<sub>RMS</sub> isolation. The system recognizes a logical "1" when no current goes from COM+ to DIO and logical "0" is returned when current goes from COM+ to DIO. The max current passing through DIO must be less than 20 mA.



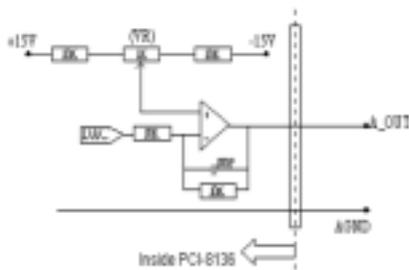
#### Pulse Input (Industrial Counter)

The PCI-8136 provides 6 differential pulse inputs with 2500 V<sub>RMS</sub> isolation. The pulse mode is software programmable to be AB-phase, CW/CCW, or Pulse/Direction, and the counter speed goes up to 2 MHz.



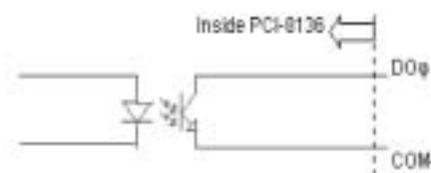
#### Analog Output

The PCI-8136 provides 6 16-bit D/A converter channels. The output voltage ranged from -10 V to +10 V. The Analog outputs are all single-ended with common ground, AGND.



#### Digital Output

The PCI-8136 provides 7 open collector outputs with 2500 V<sub>RMS</sub> isolation. The maximum output switching frequency is 10 kHz, and the continuous output supply current is subject to 500 mA/CH (total), 100 mA/CH (typical) and 268 mA/CH (max).



#### Pulse Output (Pulse Generator)

The PCI-8136 provides 6 differential pulse output channels. The pulse mode is software programmable to be Pulse/Direction, CW/CCW, or AB-phase, and the output frequency goes up to 500 kHz.

