



## PISO-PS200

PCI Bus, High-speed  
2-axis Motion Control Card  
with FRnet Master

### Introduction

The **PISO-PS200** is a 2-axis stepping/pulse-type servo motor control card that can be used on any IPC with a 5 V PCI bus, and is suitable for general-purpose motion control applications. This card is equipped with one FRnet Master which allows the fast remote I/O of the IPC to be expanded easily. The two-wired FRnet interface allows a maximum 128 DI and 128 DO channels, which are automatically scanned within a period of 2.88 ms.

In addition to its wide speed range, this intelligent motion controller also has a variety of motion control functions built in, such as 2-axis linear interpolation, 2-axis circular interpolation, T/S-curve acceleration/deceleration, numerous synchronous actions, automatic homing, and others. A major advantage is that the majority of the PISO-PS200 motion control functions are performed by the high-performance motion ASIC with little load on the processor. The motion status, FRnet I/O, and the other I/O cards on the IPC can still be monitored while driving the motors.

As the low CPU loading requirements of the PISO-PS200 is minimal, one or more motion cards can be used with a single IPC. ICP DAS also provides a variety of functions and examples that can be used to reduce the need for additional programming, making it a highly cost-effective solution for motion control application developers.

### Specifications

| Model                    | PISO-PS200         |
|--------------------------|--------------------|
| <b>General</b>           |                    |
| Number of Axes           | 2                  |
| Slot Interface           | 5 V PCI bus        |
| Pulse Output Rate        | 4 MHz (Max.)       |
| Command Type             | Pulse command      |
| Resolution               | 32-bit             |
| Pulse Output Mode        | CW/CCW, PULSE/DIR  |
| Operation Mode           | Semi-closed Loop   |
| Linear Interpolation     | 2 axes             |
| Circular Interpolation   | 2 axes             |
| Speed Curve Profile      | T/S-curve          |
| Synchronous Action       | -                  |
| Ring Counter Mode        | 32-bit             |
| Position Control Mode    | Incremental mode   |
| Position Compare Trigger | -                  |
| Encoder Interface        | A/B pulse, Up/Down |
| Encoder Counter          | 32-bit             |

### Features

- Independent 2-axis motion control
- Support for hand wheel and jog functions
- 2-axis linear / 2-axis circular interpolation function
- Continuous interpolation function
- Programmable T/S-curve acceleration and deceleration
- A maximum of 4 MHz pulse output rate for each axis
- Pulse output types: CW/CCW or PULSE/DIR
- 32-bit encoder counter for each axis
- Encoder pulse input types: A/B phase or Up/Down
- Programmable automatic homing for each axis
- Programmable software limits
- Expandable Remote I/O: 128 DI & 128 DO via a two-wire FRnet interface

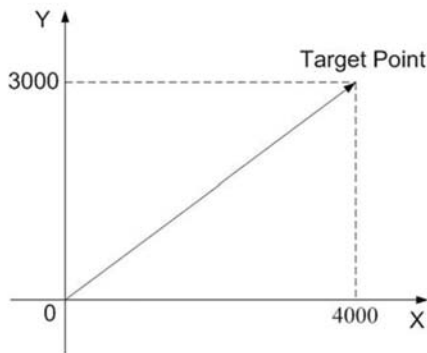


### Software Support

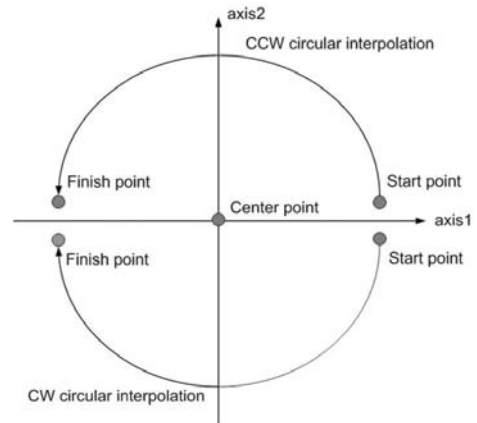
|                         |  |
|-------------------------|--|
| Windows Driver/DLL/Lib  | Windows 7/10 32/64-bit<br>Windows XP/2000 32-bit |
| DOS Library             | -  |
| Labview Development Kit | -  |
| Linux Library           | -  |

| Model                        | PISO-PS200                    |
|------------------------------|-------------------------------|
| Encoder Counting Rate        | 4 MHz (Max.)                  |
| I/O Isolation (with DN-8237) | 2500 Vrms optical isolation   |
| Connector                    | 37-pin D-Sub                  |
| <b>Motion Relative I/O</b>   |                               |
| Mechanical Switch Input      | Home, LMT+/-, NHOME, EMG      |
| Servo I/O Interface          | Input: INP, ALM; Output: SVON |
| <b>Digital Input</b>         |                               |
| Digital Input Channels       | Expandable: 128 DI            |
| <b>Digital Output</b>        |                               |
| Digital Output Channels      | Expandable: 128 DO            |
| <b>Power</b>                 |                               |
| Power Consumption            | +5 V @ 500 mA                 |
| <b>Environmental</b>         |                               |
| Operating Temperature        | -20 ~ +75°C                   |
| Storage Temperature          | -30 ~ +85°C                   |
| Ambient Relative Humidity    | 5 ~ 90% RH, non-condensing    |

## Features of Motion Function

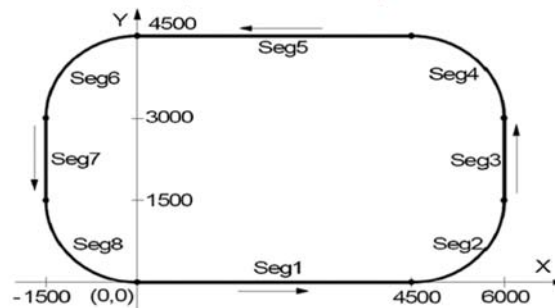


2-Axis Linear Interpolation

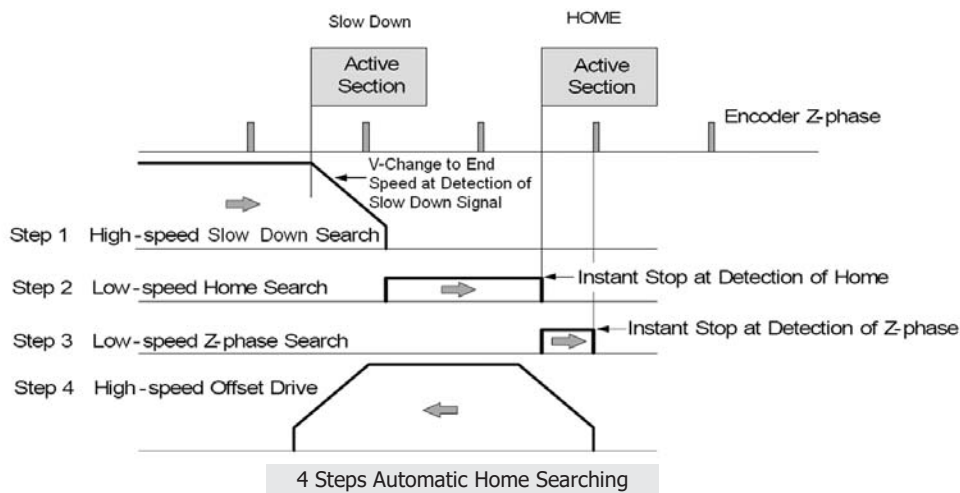


2-Axis Circular Interpolation

### 8 Segments Continuous Interpolation Motion (Linear+ Circular)



Continuous interpolation



4 Steps Automatic Home Searching

## Ordering Information

|                   |  |
|-------------------|--|
| <b>PISO-PS200</b> | PCI Bus, High-speed 2-axis Motion Control Card with FRnet Master |
|-------------------|--|

## Accessories

|   |   |
|---|---|
| DN-8237UB                                 | Photo-isolated Universal Snap-on Wiring Terminal Board                                  |
| DN-8237GB                                 | Photo-isolated General Purpose Wiring Terminal Board                                    |
| DN-8237MB                                 | Photo-isolated Snap-on Wiring Terminal Board for Mitsubishi MELSERVO-J2 Servo Amplifier |
| DN-8237PB                                 | Photo-isolated Snap-on Wiring Terminal Board for Panasonic MINAS A4/A5 Servo Amplifier  |
| DN-8237YB                                 | Photo-isolated Snap-on Wiring Terminal Board for Yaskawa Sigma II/III/V Servo Amplifier |
| DN-8237DB                                 | Photo-isolated Snap-on Wiring Terminal Board for Delta ASDA-A Servo Amplifier           |
| CA-3715DM-H<br>CA-3730DM-H<br>CA-3750DM-H | 37-pin D-Sub Male-Male Cable for Terminal Board (180°), Length 1.5 M / 3.0 M / 5.0 M.   |