



### Features

- Six independent D/A output channels
- 12-bit resolution double-buffered D/A converter
- Multiple voltage ranges:  $\pm 10$  V,  $\pm 5$  V, 0 ~ +5 V, 0 ~ +10 V and 4 ~ 20 mA current loop (sink)
- 16 digital input channels and 16 digital output channels

### Introduction

The PCL-726 provides six 12-bit D/A channels on a full-size add-on card. You can individually configure each channel to any of the following ranges: 0 to +5 V, 0 to +10 V,  $\pm 5$  V,  $\pm 10$  V and 4 to 20 mA current loop (sink). Designed for use in industrial environments, the PCL-726 is an ideal, economical solution for applications that require multiple analog outputs or current loops.

In addition to its analog outputs, the PCL-726 also provides 16 digital output channels plus 16 digital input channels. Its TTL-compatible D/I and D/O ports easily interface with our line of daughterboards for industrial On/Off control and sensing applications.

PCL-726 comes with a utility program disk which contains a ready-to-run calibration program and programming examples.

### Applications

- PID loop control
- Programmable voltage source
- Servo control
- Programmable current sink
- Function generator

### Specifications

#### Analog Output (D/A Converter)

- **Channels:** 6
- **Resolution:** 12 bits, double buffered
- **Output ranges:**
  - Unipolar: 0 ~ +5 V, 0 ~ +10 V
  - Bipolar:  $\pm 5$  V,  $\pm 10$  V
  - Current loop (sink): 4 ~ 20 mA,  $\pm 10$  V with external DC or AC reference
- **Throughput:** 15 kHz
- **Settling time:**  $\leq 70$  msec.
- **Accuracy:**  $\pm 0.012\%$  full scale range
- **Temperature drift:** 5 PPM/  $^{\circ}\text{C}$  (0 ~ 50 $^{\circ}\text{C}$ )
- **Linearity:**  $\pm 1/2$  bit
- **Voltage output current:**  $\pm 5$  mA max.

- **Current loop excitation voltage:** Minimum +8 V, maximum +36 V for 4 ~ 20 mA current loop
- **Reset (power-on) status:** All D/A channels will be at 0 V output after reset or power-on (both bipolar and unipolar modes)

#### Digital Input

- **Channels:** 16
- **Levels:** TTL compatible
- **Logic level 0:** 0.8 V max.
- **Logic level 1:** 2.0 V min.
- **Input loading:** 0.5 V @ 0.4 mA max. (low)  
2.7 V @ 50 mA max. (high)

#### Digital Output

- **Channels:** 16
- **Levels:** TTL compatible
- **Logic level 0:** 0.5 V @ 8.0 mA (sink)
- **Logic level 1:** 2.4 V @ 0.05 mA (source)

#### General

- **Power consumption:**
  - +5 V @ 500 mA typical, 1 A max.
  - +12 V @ 80 mA typical, 110 mA max.
  - 12 V @ 60 mA typical, 90 mA max.
- **Operating temperature:** 0 ~ 50 $^{\circ}\text{C}$  (32 ~ 122 $^{\circ}\text{F}$ )
- **Storage temperature:** 0 ~ 65 $^{\circ}\text{C}$  (32 ~ 149 $^{\circ}\text{F}$ )
- **Operating humidity:** 5 ~ 95% RH non-condensing (refer to IEC 68-2-3)
- **Connectors:** One 37-pin D type female connector  
Two 20-pin male ribbon-cable connectors
- **Dimensions:** 340 mm (L) x 100 mm (H) (13.4" x 3.9")

### Ordering Information

- PCL-726: 6-channel D/A output and DIO card, user's manual and utility software diskette
- PCL-10120-1: 20-pin flat cable, 1 m
- PCL-10120-2: 20-pin flat cable, 2 m
- PCLS-OCX: ActiveX Control for data acquisition and control
- PCLD-780: Screw terminal board