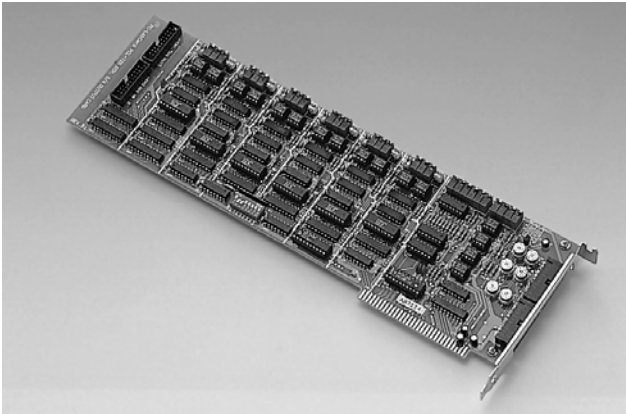


# PCL-726

## 6-ch D/A Output Card



### 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.

### 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:**  $\leq 70$   $\mu$ sec.
- **Accuracy:**  $\pm 0.012\%$  full scale range
- **Temperature Drift:** 5 PPM/ $^{\circ}$  C ( $0^{\circ}$  ~  $50^{\circ}$  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)

### Features

- 6 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

#### Digital Input

- **Channels:** 16-ch TTL compatible DI
- **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-ch TTL compatible DO
- **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:**  $0^{\circ}$  ~  $50^{\circ}$  C ( $32^{\circ}$  ~  $122^{\circ}$  F)
- **Storage Temperature:**  $0^{\circ}$  ~  $65^{\circ}$  C ( $32^{\circ}$  ~  $149^{\circ}$  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 driver CD-ROM (cable not included)
- PCL-10120-1:** 20-pin flat cable, 1 m
- PCL-10120-2:** 20-pin flat cable, 2 m
- PCLD-780:** Screw terminal board
- PCLD-782:** Opto-Isolated D/I board (16-ch)
- PCLD-785:** Relay output board (16-ch)
- ADAM-3920:** 20-pin wiring terminal for DIN-rail mounting

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