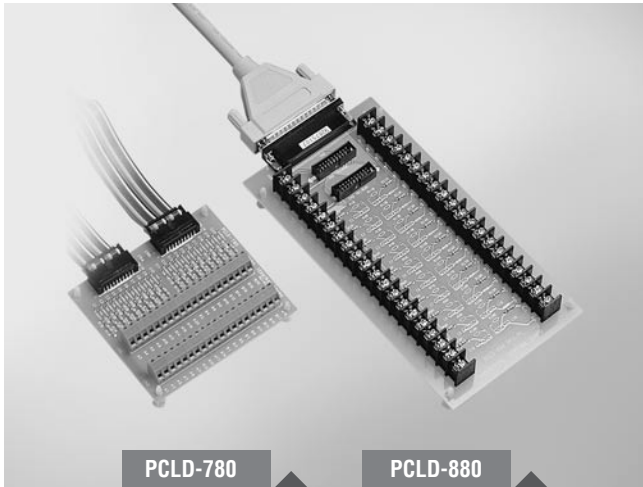


# PCLD-780 PCLD-880

## Screw Terminal Board with Flat Cables

## Wiring Terminal Board with Flat Cables and Adapter



### Features

- Pin to pin design
- Low-cost universal screw-terminal boards for industrial applications
- 40 terminal points for two 20-pin flat cable connector ports
- Reserved space for signal-conditioning circuits such as low-pass filter, voltage attenuator and current-to-voltage conversion
- Table-top mounting using nylon standoffs. Screws and washers provided for panel or wall mounting

#### PCLD-780 Only

- Screw-clamp terminal-blocks allow easy and reliable connections
- Dimensions: 102 x 114 mm (4.0" x 4.5")

#### PCLD-880 Only

- Supports PC-LabCard™ products with DB37 connectors
- Industrial-grade terminal blocks (barrier-strip) permit heavy-duty and reliable connections
- Dimensions: 221 x 115 mm (8.7" x 4.5")

### Introduction

PCLD-780 and PCLD-880 universal screw-terminal boards provide convenient and reliable signal wiring for PC-LabCard™ products with 20-pin flat-cable connectors. PCLD-880 is also equipped with a DB37 connector to support PC-LabCard™ products with DB37 connectors.

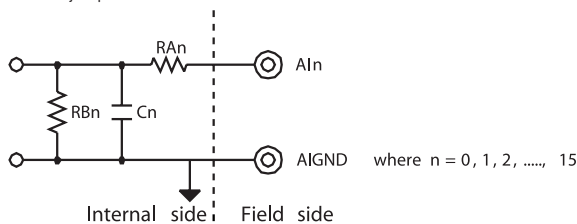
PCLD-780 and PCLD-880 let you install passive components on the special PCB layout to construct your own signal-conditioning circuits. You can easily construct a low-pass filter, attenuator or current-to-voltage converter by adding resistors and capacitors onto the board's circuit pads.

### Applications

- Field wiring for analog and digital I/O channels of PC-LabCard™ products which employ the standard 20-pin flat cable connectors or DB37 connectors (only PCLD-880)
- Signal conditioning circuits can be implemented as illustrated in the following examples:

#### a) Straight-through connection (factory setting)

$R_{An} = 0\Omega$  jumper



$R_{Bn} = \text{none}$

$C_n = \text{none}$

#### b) 1.6 kHz (3dB) low pass filter

$R_{An} = 10\text{ K}\Omega$

$R_{Bn} = \text{none}$

$C_n = 0.01\mu\text{F}$

$$f_{3dB} = \frac{1}{2\pi R_{An} C_n}$$

#### c) 10 : 1 voltage attenuator

$R_{An} = 9\text{ K}\Omega$

$R_{Bn} = 1\text{ K}\Omega$

$C_n = \text{none}$

$$\text{Attenuation} = \frac{R_{Bn}}{R_{An} + R_{Bn}}$$

(Assume source impedance  $\ll 10\text{ K}\Omega$ )

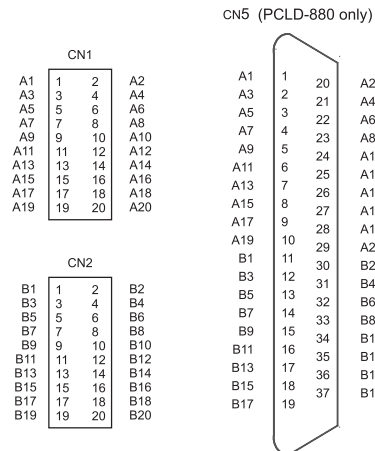
#### d) 4 ~ 20 mA to 1 ~ 5 V<sub>DC</sub> signal converter

$R_{An} = 0\Omega$  (short)

$R_{Bn} = 250\Omega$  (0.1% precision resistor)

$C_n = \text{none}$

### Pin Assignments



### Ordering Information

- PCLD-780 Screw Terminal Board w/ Two 20-pin Flat Cables
- PCLD-880 Wiring Board w/ Two 20-pin Flat Cables & Adapter
- PCL-10137-1 DB37 Cable, 1 m
- PCL-10137-2 DB37 Cable, 2 m
- PCL-10137-3 DB37 Cable, 3 m
- PCL-10120-1 20-pin Flat Cable, 1 m
- PCL-10120-2 20-pin Flat Cable, 2 m