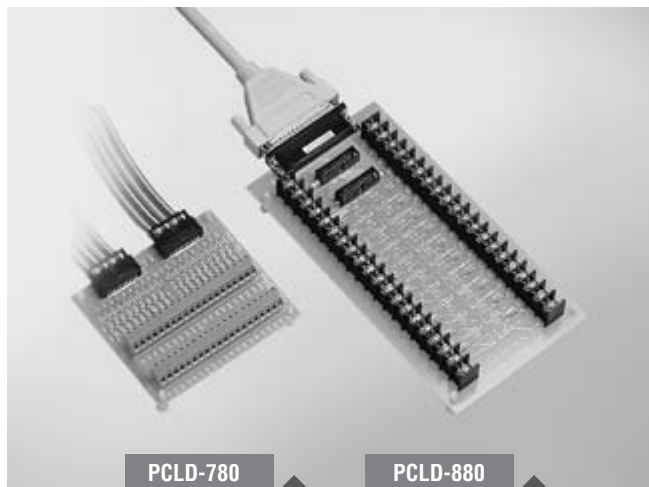


# PCLD-780 PCLD-880

## 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.

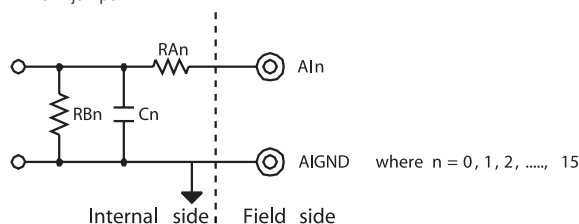
PCLD-780 and PCLD-880 let you install passive components on the special PCB layout to construct your own signal-conditioning circuits. You can easily construct a low-pass filter, attenuator or current-to-voltage converter by adding resistors and capacitors onto the board's circuit pads.

## 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

CN5 (PCLD-880 only)

CN1				CN2			
A1	1	2	A2	B1	1	2	B2
A3	3	4	A4	B3	3	4	B4
A5	5	6	A6	B5	5	6	B6
A7	7	8	A8	B7	7	8	B8
A9	9	10	A10	B9	9	10	B10
A11	11	12	A12	B11	11	12	B12
A13	13	14	A14	B13	13	14	B14
A15	15	16	A16	B15	15	16	B16
A17	17	18	A18	B17	17	18	B18
A19	19	20	A20	B19	19	20	B20

## 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

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