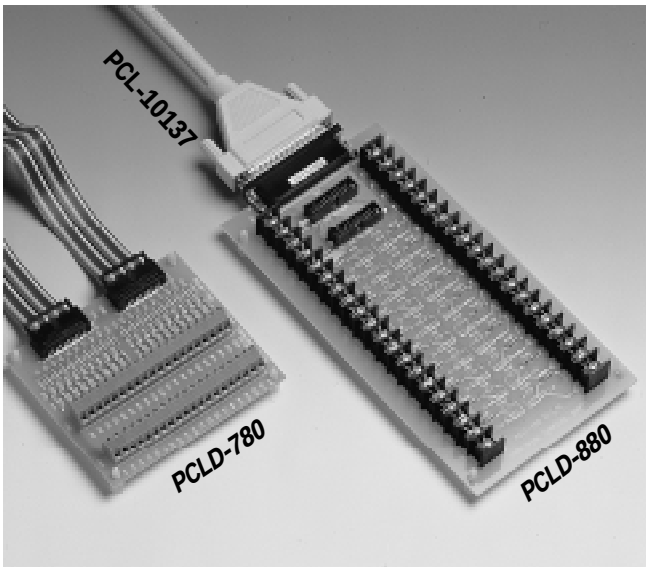
PCLD-780 / 880

Screw-terminal Boards



Features

- 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 mm x 114 mm (4.0" x 4.5")

PCLD-880 only

- Supports PC-LabCards with DB-37 connectors
- Industrial-grade terminal blocks (barrier-strip) permit heavy-duty and reliable connections
- Dimensions: 221 mm x 115 mm (8.7" x 4.5")

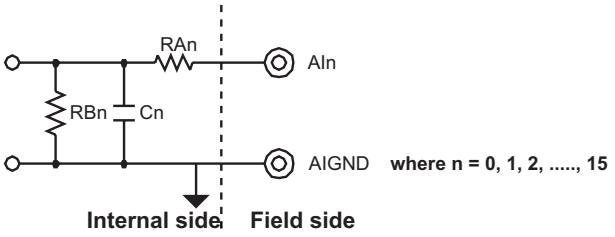
Introduction

The PCLD-780 and PCLD-880 universal screw-terminal boards provide convenient and reliable signal wiring for PC-LabCards with 20-pin flat-cable connectors. The PCLD-880 is also equipped with a DB-37 connector to support PC-LabCards with DB-37 connectors.

The 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 on the board's circuit pads.

Applications

- Field wiring for analog and digital I/O channels of PC-LabCards which employ the standard 20-pin flat cable connectors or DB-37 connectors (only PCLD-880)
- Signal conditioning circuits can be implemented as illustrated in the following examples:



a) Straight-through connection (factory setting)
RAn = 0 Ω jumper
RBn = none
Cn = none

b) 1.6 kHz (3dB) low pass filter
RAn = 10 k Ω
RBn = none
Cn = 0.01μF

$$f_{3dB} = \frac{1}{2\pi RAnCn}$$

c) 10 : 1 voltage attenuator:
RAn = 9 k Ω
RBn = 1 k Ω
Cn = none

$$\text{Attenuation} = \frac{RBn}{RAn + RBn}$$

(Assume source impedance << 10 k Ω)

d) 4 ~ 20 mA to 1 ~ 5 VDC signal converter:
RAn = 0 Ω (short)
RBn = 250 Ω (0.1% precision resistor)
Cn = none

Ordering Information

- ❑ **PCLD-780**: Screw terminal Board, two 1-m 20-pin flat cables (PCL-10120-1)
- ❑ **PCLD-880**: Industrial Wiring Terminal Board, two 1-m 20-pin flat cables (PCL-10120-1), and one PCL-10501 adapter (20-pin analog flat connector to DB-37 connector)
- ❑ **PCL-10137**: DB-37 cable assembly, 1 m