PCLD-780/880

Universal Screw-terminal Boards

PCLD-780 ▲   **PCLD-880** ▲
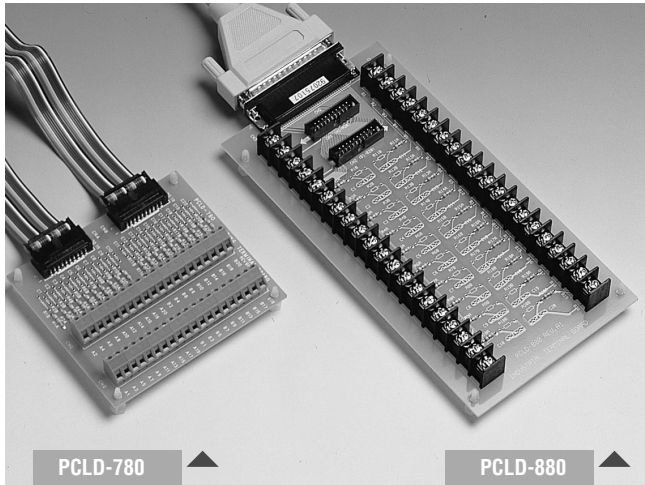
Features

- 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 DB-37 connectors
- Industrial-grade terminal blocks (barrier-strip) permit heavy-duty and reliable connections
- Dimensions: 221 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-LabCard™ products with 20-pin flat-cable connectors. The PCLD-880 is also equipped with a DB-37 connector to support PC-LabCard™ products 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

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 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 = 0Ω jumper

where n = 0, 1, 2, ..., 15

Internal side   Field side
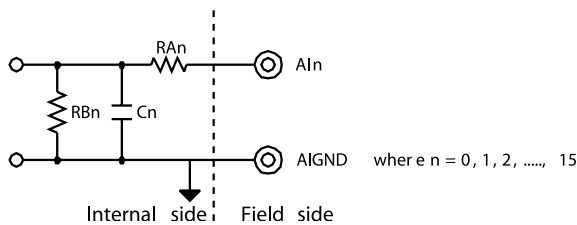
RBn = none
Cn = none

b) 1.6 KHz (3dB) low pass filter

$RAn = 10\ K\Omega$

$RBn = none$

$Cn = 0.01\Omega F$

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

c) 10 : 1 voltage attenuator:

RAn = 9 KΩ
RBn = 1 KΩ
Cn = none

$Attenuation = \dfrac{RBn}{RAn + RBn}$

(Assume source impedance << 10 KΩ)

d) 4 ~ 20 mA to 1 ~ 5 VDC signal converter:

RAn = 0 Ω (short)
RBn = 250 Ω (0.1% precision resistor)
Cn = none

Pin Assignments

CN5 (PCLD-880 only)

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-10137-1/2/3**   DB-37 cable assembly, 1, 2 and 3 m

ADVANTECH   **Signal Conditioning Modules and Terminal Boards**