PCLD-780
PCLD-880

Screw Terminal Board

Industrial Wiring Terminal Board with Adapter

PCLD-780   **PCLD-880**
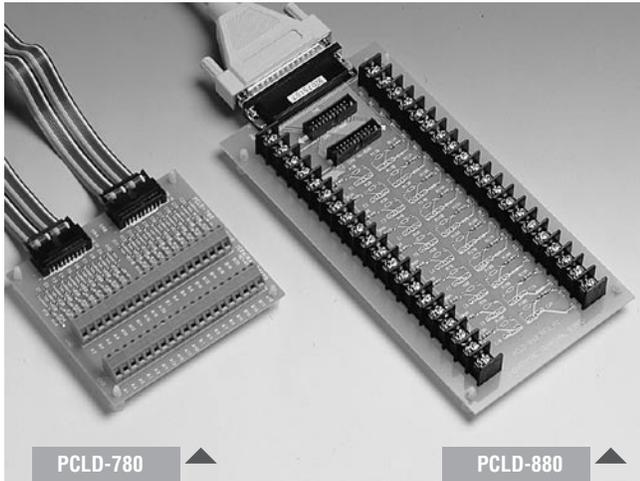
Features

- 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

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)

$RAn = 0\Omega$ jumper

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

Internal side   Field side
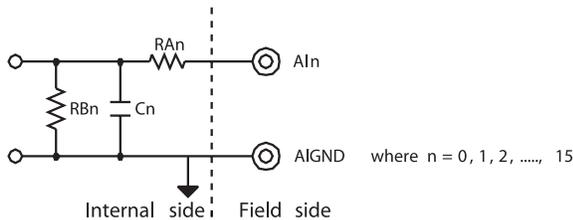
RBn = none
Cn = none

b) 1.6 kHz (3dB) low pass filter

$RAn = 10\ K\Omega$

$RBn = none$

$Cn = 0.01\mu F$

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

c) 10 : 1 voltage attenuator:

$RAn = 9\ K\Omega$

$RBn = 1\ K\Omega$

Cn = none

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

(Assume source impedance $\ll$ 10 KΩ)

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

$RAn = 0\ \Omega$ (short)

$RBn = 250\ \Omega$ (0.1% precision resistor)

Cn = none

Pin Assignments

CN5 (PCLD-880 only)

CN1

A1	1	2	A2
A3	3	4	A4
A5	5	6	A6
A7	7	8	A8
A9	9	10	A10
A11	11	12	A12
A13	13	14	A14
A15	15	16	A16
A17	17	18	A18
A19	19	20	A20

CN2

B1	1	2	B2
B3	3	4	B4
B5	5	6	B6
B7	7	8	B8
B9	9	10	B10
B11	11	12	B12
B13	13	14	B14
B15	15	16	B16
B17	17	18	B18
B19	19	20	B20

Ordering Information

- **PCLD-780**   Screw terminal Board, two 1m 20-pin flat cables (PCL-10120-1)
- **PCLD-880**   Industrial Wiring Terminal Board, two 1m 20-pin flat cables (PCL-10120-1), and one PCL-10501 adapter (20-pin analog flat connector to DB37 connector)
- **PCL-10137-1**   DB37 cable assembly, 1 m
- **PCL-10137-2**   DB37 cable assembly, 2 m
- **PCL-10137-3**   DB37 cable assembly, 3 m