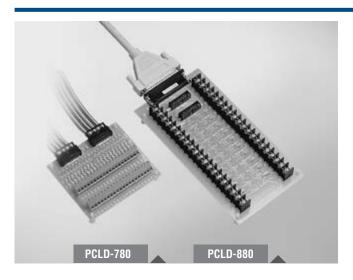
# **PCLD-780** PCLD-880

# **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")

- 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

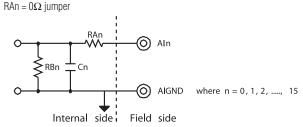
PCLD-780 and PCLD-880 universal screw-terminal boards provide convenient and reliable signal wiring for PC-LabCard™ products with 20-pin flat-cable connectors. PCLD-880 is also equipped with a DB37 connector to support PC-LabCard™ products with DB37 connectors.

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
- Signal conditioning circuits can be implemented as illustrated in the following examples:

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



RBn = none Cn = none

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

$$RAn = 10 \text{ K}\Omega$$

$$RBn = none$$

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

$$1$$

$$2\pi\text{RAnCn}$$

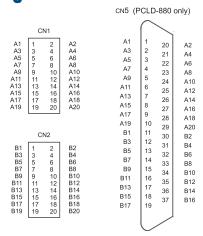
#### c) 10: 1 voltage attenuator

$$\begin{aligned} &\mathsf{RAn} = 9 \; \mathsf{K}\Omega \\ &\mathsf{RBn} = 1 \; \mathsf{K}\Omega \\ &\mathsf{Cn} = \mathsf{none} \\ &\mathsf{Attenuation} = \frac{RBn}{RAn + RBn} \\ &\mathsf{(Assume source impedance << 10 \; \mathsf{K}\Omega)} \end{aligned}$$

#### d) 4 ~ 20 mA to 1 ~ 5 $V_{DC}$ signal converter

 $RAn = 0 \Omega (short)$ RBn = 250  $\Omega$  (0.1% precision resistor) Cn = none

# **Pin Assignments**



# Ordering Information

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



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