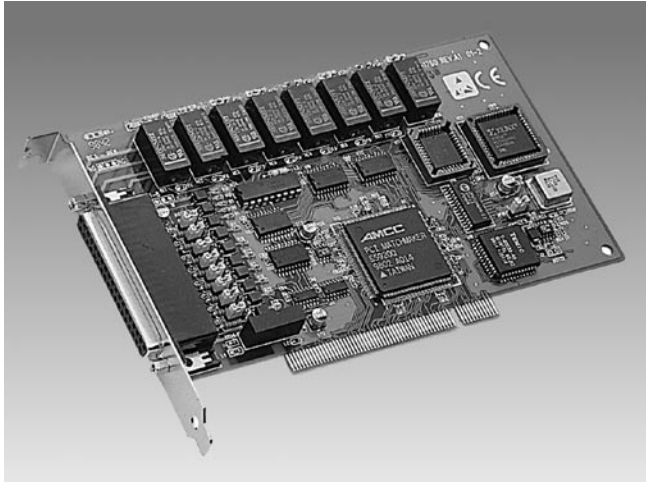


PCI-1760 PCI-1760U

8-ch Relay Actuator and Isolated D/I Card



FCC CE

Features

- Universal PCI card, for 3.3 V and 5 V PCI slot
- 8 opto-isolated digital input channels
- 8 relay actuator output channels
- 2 opto-isolated PWM outputs
- LED indicators to show activated relays
- Jumper selectable dry contact/wet contact input signals
- Up event counters for DI
- Programmable digital filter function for DI
- Pattern match interrupt function for DI
- "Change of State" interrupt function for DI
- Universal PCI and BoardID switch (PCI-1760U only)

Introduction

The PCI-1760U relay actuator and isolated D/I card is a PC add-on card for the PCI bus. It meets the PCI standard Rev. 2.2 (Universal PCI expansion card), and works with both 3.3 V and 5 V PCI slots. It provides 8 opto-isolated digital inputs with isolation protection of 2,500 V_{DC} for collecting digital inputs in noisy environments, 8 relay actuators that can be used as a on/off control devices or small power switches, and 2 isolated PWM (Pulse Width Modulation) outputs for custom applications.

For easy monitoring, each relay is equipped with one red LED to show its on/off status. Each isolated input supports both dry contact and wet contact so that it can easily interface with other devices when no voltage is present in the external circuit.

Specifications

Isolated Digital Input

- **Channels** 8 (Sink)
- **Opto-isolator** PC354
- **Input Voltage** 5 ~ 12 V_{DC}
High: > 4.5 V
Low: < 1.0 V
Uncertain: 1.0 V ≥ V_{in} ≥ 4.5 V
- **Input Resistance** 1 kΩ 1/4 W
- **Isolation Voltage** 2,500 V_{DC}
- **Digital Filter** Minimum effective high input period ≥ [(2 ~ 65535) x 5 ms] + 5 ms
Minimum effective low input period ≥ [(2 ~ 65535) x 5 ms] + 5 ms
- **16-bit UP Counter** Maximum effective input frequency: 500 Hz
Minimum High period ≥ 1 ms
Minimum Low period ≥ 1 ms

Relay Output

- **Channels** 8
- **Relay Type** Single-pole double-throw (SPDT, Form C)
- **Output Type** CH0 and CH1: NC and NO outputs
CH2 ~ CH7: NC or NO outputs (selected by jumper)
- **Rating Contact Load** 120 V_{DC} @ 0.5 A or 30 V_{DC} @ 1 A
- **Contact Resistance** Less than 100 mΩ initially
- **Dielectric Strength** Coil to contacts (deenergized): 1,500 V_{RMS} (1 minute)
Between open contacts (deenergized & energized): 1,000 V_{RMS} (1 minute)
- **Life Expectancy** 200,000 operations @ 0.5 A 120 V_{AC}
500,000 operations @ 1.0 A 30 V_{DC}
- **Operating Time** 5 ms max.
- **Releasing Time** 5 ms max.

Isolated PWM output

- **Channels** 2
- **Isolation Voltage** 2,500 V_{DC}
- **Scaling Resolution** 16 bits (100 ms for each step)
High period = [(1 ~ 65535) x 100 ms] + 50 ms (max.)
Low period = [(1 ~ 65535) x 100 ms] + 50 ms (max.)
- **Output Level** High: (5 ± 0.5) V
Low: < 0.8 V

General

- **Power Consumption** +5 V @ 450 mA (typical), 850 mA (max.)
- **Operating Temperature** 0 ~ 60° C (32 ~ 140° F) (IEC 68-2-1, 2)
- **Storage Temperature** -20 ~ 70° C (-4 ~ 158° F)
- **Operating Humidity** 5 ~ 95 % RH non-condensing (IEC 68-2-3)

Physical

- **Connector** One 37-pin D-type connector
- **Dimensions (L x H)** 175 x 100 mm (6.9" x 3.9")

Ordering Information

- **PCI-1760U** Relay Actuator and Isolated D/I Card, user's manual and driver CD-ROM (cable not included)
- **PCI-1760** 8-ch Relay Actuator and Isolated D/I card
- **PCL-10137-1** DB37 cable assembly, 1m
- **PCL-10137-2** DB37 cable assembly, 2m
- **PCL-10137-3** DB37 cable assembly, 3m
- **ADAM-3937** DB37 wiring terminal for DIN-rail mounting

Applications

- Digital signal and contact status monitoring
- Industrial On/Off control
- Signal switching
- External relay driving