PCI-7260
8-CH High-Power Relay Outputs & 8-CH Isolated Digital Inputs Card

Features
- Supports a 32-bit 3.3 V or 5 V PCI bus
- 8-CH high power relay outputs
  - 5 A at 250 V_{AC}
  - 5 A at 30 V_{DC}
- 8-CH isolated digital inputs
- 8-CH relay status outputs
- 1-CH emergency shutdown input
- Pluggable connector for high current input
- Onboard LED indicators for relay status
- Initial and safety state setting by DIP switches
- Interrupt generated from
  - COS (Change-of-State) of DI
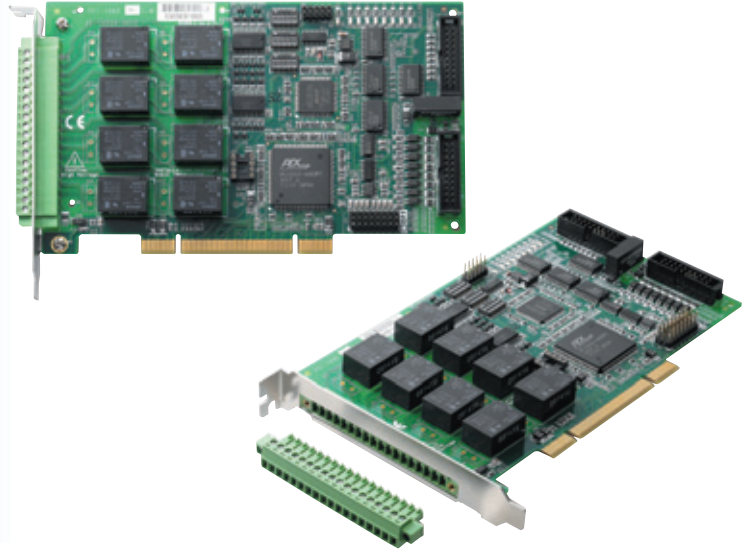 - CH0/CH1 rising edge
- Built-in watchdog timer

Operating Systems
- Windows Vista/XP/2000/2003
- Linux

Recommended Software
- VB.NET/VC.NET/VB/ VC++/BCB/Delphi
- DAQBench

Driver Support
- DAQPilot for Windows
- DAQ-LVIEW PnP for LabVIEW™
- DAQ-MTLB for MATLAB®
- PCIS-DASK for Windows
- PCIS-DASK/X for Linux

Introduction
ADLINK PCI-7260 is the world's first PCI-bus, high-power relay output card for industrial automation and machine control. The design of PCI-7260 conforms to EN61010-1 safety standard. All eight channels are capable to switch 5 A current at 250 V_{AC} or 5 A current at 30 V_{DC}. Its pluggable front-panel connector gives consideration to both carrying high current and easy wiring. The PCI-7260 also provides eight isolated digital input channels with debouncer capability. Users may monitor the digital inputs by handling the hardware interrupt generated when DI status changes or DI CH0/CH1 transitions from low to high.

PCI-7260 also provides advanced features to make it feasible for industrial applications. The emergency shutdown input on the front panel lets users get back to a safety state set by a DIP switch regardless the system condition. A DIP switch sets the initial output status upon powering on, while a built-in watchdog timer guarantees that all the relays return to the safety state when the compute halts.

Specifications

Relay Output
- Number of channels: 8
- Relay type: Non-latching SPST-NO + SPST-NC (for output indicator)
- Contact rating
  - AC: 250 V @ 5 A
  - DC: 30 V @ 5 A
- Insulation resistance: 1000 MΩ min. (at 500 V_{DC})
- Breakdown voltage: 2000 V_{AC}, 50/60 Hz for 1 minute
- Contact resistance: 30 mΩ max
- Operate time: 10 ms max.
- Release time: 10 ms max.
- LED indicators: onboard LEDs for relay status
- Expected relay life
  > 10^5 operations @ 5 A, 250 V_{AC}/30 V_{DC}
- Data transfer: programmed I/O

Isolated Digital Input
- Number of channels: 8
- Input current
  - Rated current: 10 mA
  - Max current: 50 mA, for isolated input.
- Input voltage: Up to 24 V_{DC}
  - Input high voltage: 10-24 V
  - Input low voltage: 0-2 V
- Input resistance: 4.7 KΩ @ 0.5 W
- Input mode: AC-filter/ Non-AC-filter

- Isolation voltage: 2,500 V_{RMS} channel-to-system
- Interrupt sources
  - Change-of-state (COS)
  - CH0/CH1 rising edge
- Data transfer: programmed I/O

Isolation +5V Power Supply
- Output Voltage: +5 V
- Output Current: 170 mA max. (@ 40˚C)

Relay Status Output
- Number of channels: 8
- Driving capacity: 15 mA

General Specifications
- I/O connector
  - 18-pin pluggable terminal block connector
  - 20-pin ribbon male x2
- Operating temperature: 0 to 60˚C
- Storage temperature: -20˚C to 70˚C
- Relative humidity: 35% to 85%, non-condensing
- Power requirements

+5 V
510 mA typical
990 mA typical (when all relays are activated simultaneously)

- Dimensions (not including connectors)
  175 mm x 107 mm

Certificate
- EMC/EMI: CE, FCC Class A
- Safety: EN61010: 2001

Pin Assignment

CN1: Relay Output/ Emergency Shutdown Input

Pin	Signal
1	NO0
2	COM0
3	NO1
4	COM1
5	NO2
6	COM2
7	NO3
8	COM3
9	NO4
10	COM4
11	NO5
12	COM5
13	NO6
14	COM6
15	NO7
16	COM7
17	ESDN_SHDN+
18	ESDN_SHDN-

JP2: Digital Input

DI 0+	1	2	DI 0-
DI 1+	3	4	DI 1-
DI 2+	5	6	DI 2-
DI 3+	7	8	DI 3-
DI 4+	9	10	DI 4-
DI 5+	11	12	DI 5-
DI 6+	13	14	DI 6-
DI 7+	15	16	DI 7-
ISOGND	17	18	ISOGND
ISO5V	19	20	ISO5V

JP3: External LED

LED0-	1	2	LED0+
LED1-	3	4	LED1+
LED2-	5	6	LED2+
LED3-	7	8	LED3+
LED4-	9	10	LED4+
LED5-	11	12	LED5+
LED6-	13	14	LED6+
LED7-	15	16	LED7+
X	17	18	X
X	19	20	X

Ordering Information
- **PCI-7260**
  8-CH High-Power Relay Outputs & 8-CH Isolated Digital Inputs Card
- **ACL-10337 (for JP2/JP3)**
  Two 20-Pin Header to 37-Pin D-Sub PC Back Panel