

PCI-7260

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



Introduction

ADLINK's 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 standards. 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.

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

- Windows CE (call for availability)

Recommended Software

- AD-Logger
- VB.NET/VC.NET/VB/VC++/BCB/Delphi
- DAQBench

Driver Support

- DAQPilot for Windows
- DAQPilot for LabVIEW™
- DAQ-MTLB for MATLAB®
- PCIS-DASK for Windows
- PCIS-DASK/X for Linux

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 M Ω min. (at 500 V_{DC})
- Breakdown voltage: 2000 V_{AC}, 50/60 Hz for 1 minute
- Contact resistance: 30 m Ω max
- Operate time: 10 ms max.

- Release time: 10 ms max.
- LED indicators: onboard LEDs for relay status
- Expected relay life
 - > 10⁵ 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 K Ω @ 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 °C 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

Ordering Information

- **PCI-7260**
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- **ACL-I0337 (for JP2/JP3)**
Two 20-Pin Header to 37-Pin D-Sub PC Back Panel

Pin Assignment

CN1: Relay Output/ Emergency Shutdown Input		JP2: Digital Input	
1	NO0	DI 0+	DI 0-
2	COM0	DI 1+	DI 1-
3	NO1	DI 2+	DI 2-
4	COM1	DI 3+	DI 3-
5	NO2	DI 4+	DI 4-
6	COM2	DI 5+	DI 5-
7	NO3	DI 6+	DI 6-
8	COM3	DI 7+	DI 7-
9	NO4	ISOGND	ISOGND
10	COM4	ISO5V	ISO5V
11	NO5	JP3: External LED	
12	COM5		
13	NO6	LED0-	LED0+
14	COM6	LED1-	LED1+
15	NO7	LED2-	LED2+
16	COM7	LED3-	LED3+
17	ESDN_SHDN+	LED4-	LED4+
18	ESDN_SHDN-	LED5-	LED5+
		LED6-	LED6+
		LED7-	LED7+
		X	X
		X	X