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 VAC or 5 A current at 30 VDC. 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 computer halts.

Features

- **Supports a 32-bit 3.3 V or 5 V PCI bus**
- **8-CH high power relay outputs**
- **5 A at 250 VAC**
- **5 A at 30 VDC**
- **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 7/Vista/XP/2000/2003 Server
- Linux

Recommended Software

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

Driver Support

- 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 MΩ min. (at 500 VDC)
- Breakdown voltage: 2000 VAC, 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 VAC/30 VDC
- 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 VDC
  - 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 VRMS channel-to-system
- Interrupt sources
  - Change-of-state (COS)
  - CH0/CH1 rising edge
- Data transfer: programmed I/O

Isolation +5 V 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**
  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

Pin Assignment

CN1: Relay Output/ Emergency Shutdown Input

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	1	DI 0-
DI 1+	2	2	DI 1-
DI 2+	3	3	DI 2-
DI 3+	4	4	DI 3-
DI 4+	5	5	DI 4-
DI 5+	6	6	DI 5-
DI 6+	7	7	DI 6-
DI 7+	8	8	DI 7-
ISOGND	9	9	ISOGND
ISO5V	10	10	ISO5V

JP3: External LED

LED0-	1	1	LED0+
LED1-	2	2	LED1+
LED2-	3	3	LED2+
LED3-	4	4	LED3+
LED4-	5	5	LED4+
LED5-	6	6	LED5+
LED6-	7	7	LED6+
LED7-	8	8	LED7+
X	9	9	X
X	10	10	X

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