

# PCI-8056/ 8056L

High Density, Isolated 32 D/I and 24 D/O Board



## Features

- ♦ 32 optically isolated digital inputs for source type
- ♦ 32 interrupt inputs
- ♦ 24 optically isolated digital outputs (sink type)
- ♦ 2K battery backup RAM for storing nonvolatile data, best for PC based Programmable Logic Controls application (*PCI-8056 only*)
- ♦ One programmable timer to provide System Timer Interrupt
- ♦ All digital inputs can be configured as interrupt inputs
- ♦ Supports Windows 98/NT/2000/XP, LabView 6.0/7.0 driver
- ♦ Complete sample programs in VB, VC, BCB, Delphi

## Introduction

The PCI-8056 is an ideal “system board” for PC based application in industrial controls. It has isolated, 32 D/I and 24 D/O. All DI’s can also be configured as interrupt inputs. In addition, there is a 2K bytes battery backup RAM on board, providing nonvolatile memories for the entire PC based system. Furthermore, a programmable timer interrupt is offered from this board which can act as the system “tick” for user’s real time partition of all the software modules in the system.

### On-board Battery Backup RAM

The design, on-board battery backup RAM, supports a storage unit that data can remain stored safely without the risk of losing it, and assures the data security while PC shuts down or loses the power. While working on it, users can save important data or key parameter in advance, or constantly update and save output values in RAM that let users always obtain latest figures; furthermore, save several ones of multiple data.

## Applications

- ♦ PC-based Programmable Logic Controls
- ♦ Isolated digital input sensing
- ♦ Process status monitoring
- ♦ Industrial ON/OFF control
- ♦ Laboratory automation

## Specifications

### Isolated Digital Inputs

Input channels: 32

Interrupt input channels: 32

Interrupt input source type: I/O interrupt & timer interrupt

Input type: source

Optical isolated: 2500V<sub>DC</sub>

Opto-isolator response time: 20us

Over-voltage protect: 50V<sub>DC</sub>

Input voltage:

VIH (max.)	36V <sub>DC</sub>
VIH (min.)	4V <sub>DC</sub>
VIL (max.)	3V <sub>DC</sub>

Input current:

10 V <sub>DC</sub>	2.9mA (typical)
12 V <sub>DC</sub>	3.6mA (typical)
24 V <sub>DC</sub>	7.5 mA (typical)
36 V <sub>DC</sub>	11.5mA (typical)

### Isolated Digital Outputs

Output channels: 24

Output type: sink (open collector)

Optical Isolation: 2500V<sub>DC</sub>

Output voltage: 10 ~ 40 V<sub>DC</sub>

Opto-isolator response time: 20us

Sink current: 100 mA max. (channel)

### Battery Backup RAM (*PCI-8056 only*)

Range of base address: P&P Memory Mapped

Size: 2K bytes

### Programmable Interval Timer

Channel: 1

Resolution: 32-bit

Time base: 2MHz



Hurco Automation Ltd.  
<http://www.pcbased.com>

# PCI-8056/ 8056L

High Density, Isolated 32 D/I and 24 D/O Board

Timer range: 0.5µs ~ 2147ms

## General environment

I/O connector: 68-pin SCSI-II pin type female

Power consumption:

+5 V @ 300mA (typical)

+5 V @ 500mA (max.)

Operation temperature: 0 ~ 60°C

Storage temperature: -20 ~ 70°C

Relative humidity: 0 ~ 90% non-condensing

Dimensions: 185mm x 122mm

## Pin Assignment

**PCI-8056/8056L Pin Assignment of the 68-Pin SCSI-II Pin Type Connector**

Description	Pin		Pin	Description
ICOM+	1		35	ICOM+
ICOM+	2		36	ICOM+
ICOM+	3		37	ICOM+
DOUT0	4		38	DOUT1
DOUT2	5		39	DOUT3
DOUT4	6		40	DOUT5
DOUT6	7		41	DOUT7
DOUT8	8		42	DOUT9
DOUT10	9		43	DOUT11
DOUT12	10		44	DOUT13
DOUT14	11		45	DOUT15
DOUT16	12		46	DOUT17
DOUT18	13		47	DOUT19
DOUT20	14		48	DOUT21
DOUT22	15		49	DOUT23
DI0	16		50	DI1
DI2	17		51	DI3
DI4	18		52	DI5
DI6	19		53	DI7
DI8	20		54	DI9
DI10	21		55	DI11
DI12	22		56	DI13
DI14	23		57	DI15
DI16	24		58	DI17
DI18	25		59	DI19
DI20	26		60	DI21
DI22	27		61	DI23
DI24	28		62	DI25
DI26	29		63	DI27
DI28	30		64	DI29
DI30	31		65	DI31
GND	32		66	GND
GND	33		67	GND
GND	34		68	GND

## Ordering Information

### PCI Bus Board

- PCI-8056** High Density, Isolated 32 D/I & 24 D/O with 2K Battery Backup RAM and a programmable timer interrupt
- PCI-8056L** PCI-8056 without the 2K Battery Backup RAM on Board

### Wiring Terminal Board



- TB-88268**  
68-Pin SCSI-II Pin Type Wiring Terminal Board for DIN-Rail Mounting

### Cable



- TB-89268-2**  
68-Pin SCSI-II Pin Type Male 2M cable
- TB-89268-5**  
68-Pin SCSI-II Pin Type Male 5M cable



Hurco Automation Ltd.  
<http://www.pcbased.com>