

Bridging the Gap between Real World and Computer

DIO3208B



16-Channel Digital I/O Card (8 Photo-Coupler Isolated DI and 8 Relay DO)

Features

- ▶ 8 isolated digital input and 8 isolated relay digital output
- ▶ High voltage isolation on all isolated channels (2500V)
- ▶ Software debounce : No debounce, 100Hz, 200Hz, 1KHz
- ▶ External triggered interrupt (IN0~IN1)
- ▶ DIN rail wiring board
- ▶ No output transition during start up
- ▶ Wide bipolar input range : 5Vdc~12Vdc or 12Vdc~50Vdc (jumper selectable)
- ▶ 4 c-contact and 4 a/b contact (jumper selectable) relay output
- ▶ Keep output state after hot reset (jumper selectable)
- ▶ Multi-function timer/counterg/PWM

Introduction

The DIO3208B card offers 8 bipolar isolated digital input channels and 8 relay digital output channels for the PCI bus. All the I/O's provide good noise immunity. It can be used in industrial automation and lab automation applications.

Multi-function : programmable one-shot; square wave generator; event counter; PWM generator

Bit manipulation and output status read back function make this card very easy to program. 16 identical cards with different ID can be hooked on PCI-bus.

DII is provided for WinXP, Win 7 and lateror LINUX platform and sample programs come with VB source code.

Specifications (With Matched Wiring Board)

Input Section

- ▶ Input channel : 8 isolated digital input
- ▶ Rated input voltage : 5Vdc~12Vdc or 12Vdc~50Vdc (jumper selectable)
- ▶ Input logic low voltage (V_{IL}) : 2.8Vdc(max) @5Vdc~12Vdc
10Vdc(max) @12Vdc~50Vdc
- ▶ Input logic high voltage (V_{IH}) : 8Vdc(min), 3ma(max)
- ▶ Switching speed : 2.2KHz(max) with on board debounce circuit

Output Section

- ▶ Output channel : 8 isolated relay output
- ▶ Output rating : 1A @120Vac, 24Vdc
- ▶ Switching speed : 300 ops./min (no load)
30 ops./min (rated load)
- ▶ Expected Electric Life : 5 million ops (no load)

Timer

- ▶ Channel : 1
- ▶ Timer length : 32-bit
- ▶ Specific Input : trigger in/counter in via IN0
- ▶ Specific Output : trigger out/counter out via OUT0
- ▶ Time base : timer @1MHz, Multi-function counter @33MHz
- ▶ Multi-functions : programmable one-shot, square wave generator, event counter, PWM generator

Main Card General

- ▶ Card ID : 4-bit
- ▶ Insulation Resistance : 100M Ohm(min) at 1000Vdc
- ▶ Isolation Voltage : 2500Vac 1Min
- ▶ Connector : One 37-pin female connector
- ▶ Operation Temperature : 0 °C ~ +70 °C
- ▶ Storage Temperature : -20 °C ~ +80 °C
- ▶ Operation Humidity : 5~95% RH, non-condensing
- ▶ Dimensions : 130(W)*102(H)mm, 5.2(W)*4.1(H)in

Pin Assignments

JF1		
OUT6_NC/NO	37	19 OUT7_NC/NO
OUT6_COM	36	18 OUT7_COM
OUT4_NC/NO	35	17 OUT5_NC/NO
OUT4_COM	34	16 OUT5_COM
OUT2_NC	33	15 OUT3_NC
OUT2_NO	32	14 OUT3_NO
OUT2_COM	31	13 OUT3_COM
OUT0_NC	30	12 OUT1_NC
OUT0_NO	29	11 OUT1_NO
OUT0_COM	28	10 OUT1_COM
IN7_B	27	9 NC
IN6_B	26	8 IN7_A
IN5_B	25	7 IN6_A
IN4_B	24	6 IN5_A
IN3_B	23	5 IN4_A
IN2_B	22	4 IN3_A
IN1_B	21	3 IN2_A
IN0_B	20	2 IN1_A
	1	IN0_A



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Applications

- Accept :
 - P.B./M.S./EMG./Contact - Start/Stop/Limit switch/sensor
 - Interlock/selective Sw.-Proximity switch
 - Aux. contact of transducer / detector
- As I/O of S/W PLC Controller

Software Support

► PC OS Support

WinXP, Win7 and later or Linux O.S.
Embedded XP, Win CE (at request)

► Library

DLLs, VI library

► Develop Software

Visual C++, Visual Basic,
Borland C/C++ Builder, LabVIEW etc

► Example Source Code

Visual Basic

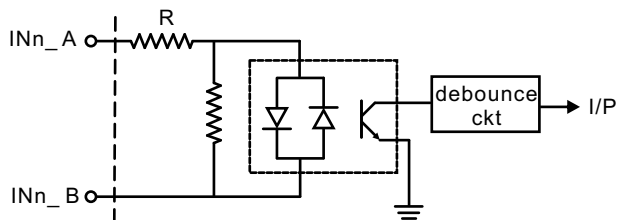
Ordering Information

- **DIO3208B** : 16-channel Digital I/O Card for 8 Photo-coupler isolated DI and 8 Relay DO with multi-function timer/counter
- **JS51026** : DIN rail mounted dummy wiring board (D type 37P male to terminals) I.12
- **M270337X0** : D type 37P male-female cable 1.5M for JF1 I.17
- **M270337X0S** : D type 37P male-female cable 1.5M, shielding for JF1 I.17
- **M270337X2** : D type 37P male-female cable 3.0M for JF1 I.17
- **M270337X2S** : D type 37P male-female cable 3.0M, shielding for JF1 I.17

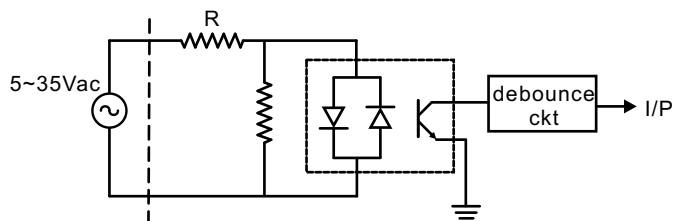
Application Tips

Take the most of bipolar photo-coupler input

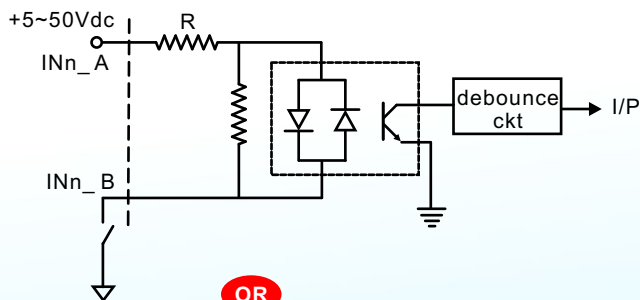
► circuit diagram of bipolar photo-coupler input



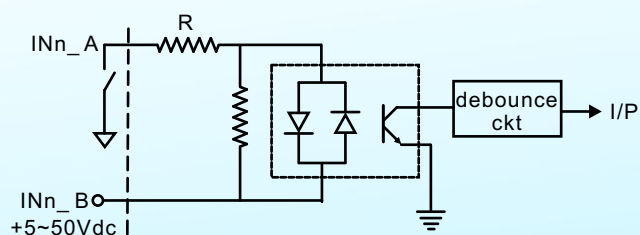
► use in AC voltage input



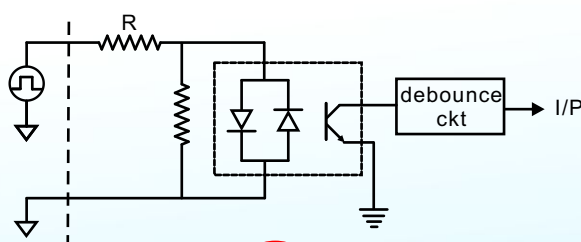
► use in current sink input



OR



► use in current source input



OR

