DIO3265

Digital I/O Card

User's Manual (V1.0)

健昇科技股份有限公司

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Correction record

Version	Record

Contents

Notes on hardware installation

Please follow step by step as you are installing the control cards.

1. Be sure your system is power off.
2. Be sure your external power supply for the wiring board is power off.
3. Plug your control card in slot, and make sure the golden fingers are put in right contacts.
4. Fasten the screw to fix the card.
5. Connect the cable between the card and wiring board.
6. Connect the external power supply for the wiring board.
7. Recheck everything is OK before system power on.
8. External power on.

Congratulation! You have it.

For more detail of step by step installation guide, please refer the file “installation.pdf “ on the CD come with the product or register as a member of our user’s club at:

http://automation.com.tw/

to download the complementary documents.

1. Forward

Thank you for your selection of JAC's product DIO3265 64 outputs DIGITAL I/O card for industrial PC. In the field of industrial control, digital I/O is generally controlled under a microprocessor and owing to their specific consideration of industrial environment; it is quite different from the laboratory requirement.

This card is a FPGA based design and our experience in the noise immunity makes this card very stable in the noisy environment and you don't worry about computer down by external noise. We wish the card that will be helpful to your project.

Other DIO series products:

DIO9201 16 channel input and 16 channel output isolated digital I/O card (ISA bus)
DIO2232 32 channel input and 32 channel output isolated digital I/O card (ISA bus)
DIO3206 48 channel TTL digital I/O Card (PCI bus)
DIO3208B 8 channel input and 8 channel relay output isolated digital I/O card (PCI bus)
DIO3216B 16 channel input and 16 channel output isolated digital I/O card (PCI bus)
DIO3217 16 channel input and 16 channel output isolated digital I/O card (PCI bus) with multifunction timer/counter
DIO3232 32 channel input and 32 channel output isolated digital I/O card (PCI bus)
DIO3248 48 channel input and 16 channel output isolated digital I/O card (PCI bus)
DIO3264 64 channel input isolated digital I/O card (PCI bus)
DIO4264 64 TTL digital I/O PC-104 Module
DIO6208 8 channel input and 8 channel relay output isolated digital I/O PCI-104 Module
DIO6216 16 channel input and 16 channel relay output isolated digital I/O PCI-104 Module

Any comment is welcome,
please visit our website
http://www.automation.com.tw/
http://www.automation-js.com/ for the up to date information.

2. Features

2.1 PCI plug and play function with card ID for 16 identical cards

2.2 All outputs are photo-coupler isolated

2.3 2 byte-programmable TTL I/O

2.4 LEDs for corresponding status indication

2.5 8 digits per I/O group with Green LED at first digit

2.6 Power MOS type output for high speed DC load

3. Specifications

3.1 DIO3265 Main card

3.1.1 Photo-coupler isolation voltage — 2500Vac 1Min

3.1.2 Insulation resistance — 100M Ohm (min) at 1000Vdc

3.1.3 PCI bus data width — 32 bits

3.1.4 Card ID — 4 bits

3.1.5 Output channel — 64 ea of ON/OFF switching

3.1.6 I/O connector — 68 pin female SCSI II connector

3.1.7 Wiring board — 1 with round cable hook to main card

3.1.8 External supply — DC 24±4V

3.1.9 Operation temperature — 0 to 70° C

3.1.10 Operation humidity — RH5~95%, non-condensed

3.1.11 Dimension — 160(W) * 95(H)mm , 6.3(W) * 3.8(H)in

3.2 Din rail mounted wiring board

ADP3265DIN(R) Din rail mounted wiring board

3.2.1 External supply — DC 24V±4V

3.2.2 Output status indicator — 64 LED, 8 digit per group with Green LED at first digit

3.2.3 Power indicator — Red LED

3.2.4 Terminal — each output independent of others

3.2.5 Output capacity — Relay output: 3A continuous @250Vac(max)

3.2.6 Operation temperature — 0 to 70° C

3.2.7 Operation humidity — RH5~95%, non-condensed

3.2.8 Dimension — ADP3265DIN(R) : 274(W) * 107(L) * 45(H)mm
10.8(W)* 4.3(L)*1.8(H)in

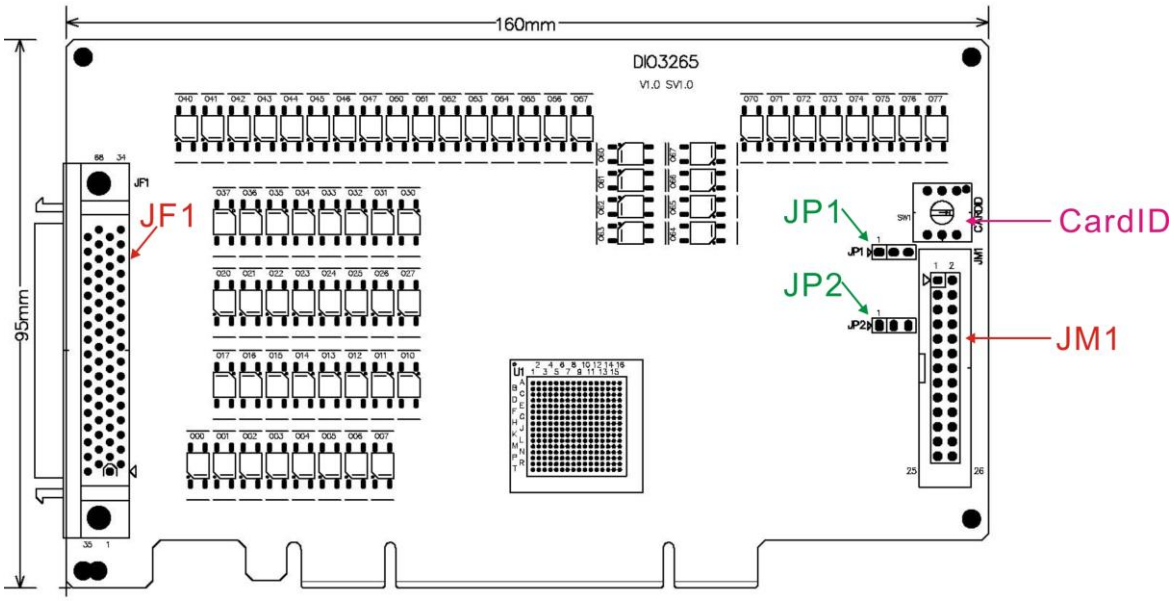
JS51050 25PM Din rail mounted dummy wiring board for TTL I/O

3.2.9 Connection cable — D-type 25P cable to connect main and wiring board

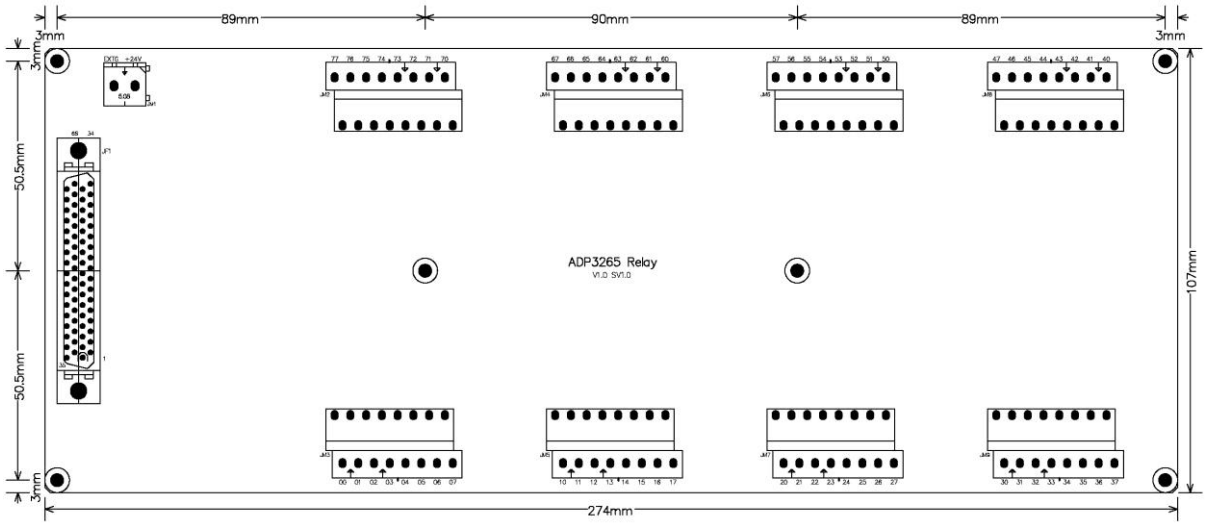
3.2.10 Dimension — 86(W)*79(L)*52(H)mm , 3.4(W)*3.2(L)*2.1(H)in

4. Layout and dimensions

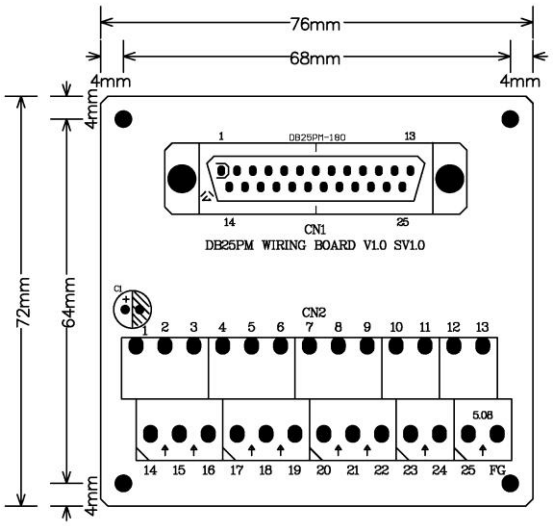
4.1 DIO3265 Main card



4.2 ADP3265DIN(R) Din rail mounted wiring board



4.3 JS51050 for JM1 25PM Din rail mounted dummy wiring board

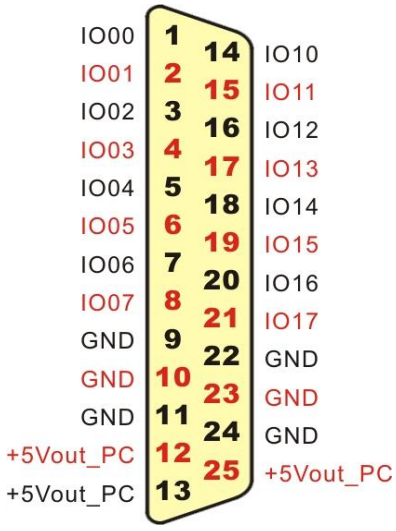


5. Pin definitions

5.1 JF1 Assignment / Definitions

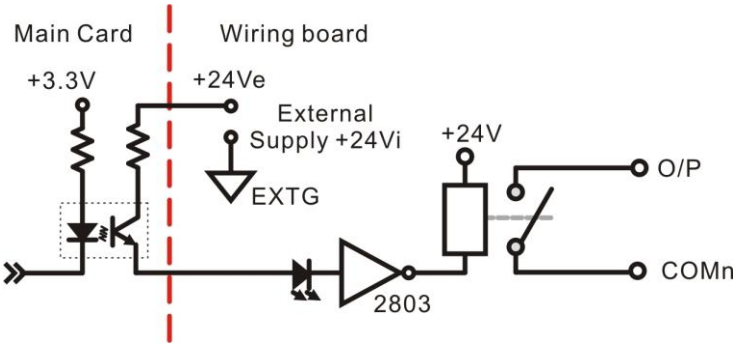
PIN	Descriptions	PIN	Descriptions
1	OUT00 [External Output 00]	35	OUT01 [External Output 01]
2	OUT02 [External Output 02]	36	OUT03 [External Output 03]
3	OUT04 [External Output 04]	37	OUT05 [External Output 05]
4	OUT06 [External Output 06]	38	OUT07 [External Output 07]
5	OUT10 [External Output 10]	39	OUT11 [External Output 11]
6	OUT12 [External Output 12]	40	OUT13 [External Output 13]
7	OUT14 [External Output 14]	41	OUT15 [External Output 15]
8	OUT16 [External Output 16]	42	OUT17 [External Output 17]
9	OUT20 [External Output 20]	43	OUT21 [External Output 21]
10	OUT22 [External Output 22]	44	OUT23 [External Output 23]
11	OUT24 [External Output 24]	45	OUT25 [External Output 25]
12	OUT26 [External Output 26]	46	OUT27 [External Output 27]
13	OUT30 [External Output 30]	47	OUT31 [External Output 31]
14	OUT32 [External Output 32]	48	OUT33 [External Output 33]
15	OUT34 [External Output 34]	49	OUT35 [External Output 35]
16	OUT36 [External Output 36]	50	OUT37 [External Output 37]
17	OUT40 [External Output 40]	51	OUT41 [External Output 41]
18	OUT42 [External Output 42]	52	OUT43 [External Output 43]
19	OUT44 [External Output 44]	53	OUT45 [External Output 45]
20	OUT46 [External Output 46]	54	OUT47 [External Output 47]
21	OUT50 [External Output 50]	55	OUT51 [External Output 51]
22	OUT52 [External Output 52]	56	OUT53 [External Output 53]
23	OUT54 [External Output 54]	57	OUT55 [External Output 55]
24	OUT56 [External Output 56]	58	OUT57 [External Output 57]
25	OUT60 [External Output 60]	59	OUT61 [External Output 61]
26	OUT62 [External Output 62]	60	OUT63 [External Output 63]
27	OUT64 [External Output 64]	61	OUT65 [External Output 65]
28	OUT66 [External Output 66]	62	OUT67 [External Output 67]
29	OUT70 [External Output 70]	63	OUT71 [External Output 71]
30	OUT72 [External Output 72]	64	OUT73 [External Output 73]
31	OUT74 [External Output 74]	65	OUT75 [External Output 75]
32	OUT76 [External Output 76]	66	OUT77 [External Output 77]
33	+24V [External DC24V power]	67	+24V [External DC24V power]
34	+24V [External DC24V power]	68	+24V [External DC24V power]

5.2 JM1 Assignment / Definitions

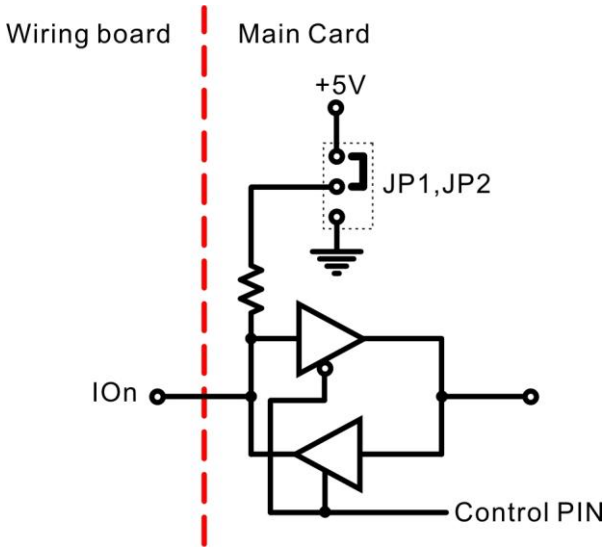
PIN	Description		PIN	Description
1	IO00: TTL port0 IO0		14	IO10: TTL port1 IO0
2	IO01: TTL port0 IO1		15	IO11: TTL port1 IO1
3	IO02: TTL port0 IO2		16	IO12: TTL port1 IO2
4	IO03: TTL port0 IO3		17	IO13: TTL port1 IO3
5	IO04: TTL port0 IO4		18	IO14: TTL port1 IO4
6	IO05: TTL port0 IO5		19	IO15: TTL port1 IO5
7	IO06: TTL port0 IO6		20	IO16: TTL port1 IO6
8	IO07: TTL port0 IO7		21	IO17: TTL port1 IO7
9	GND		22	GND
10	GND		23	GND
11	GND		24	GND
12	+5Vout_PC: 5V out from PC		25	+5Vout_PC: 5V out from PC
13	+5Vout_PC: 5V out from PC			

6. I/O interface diagram

6.1 JF1 ADP3265DIN(R)

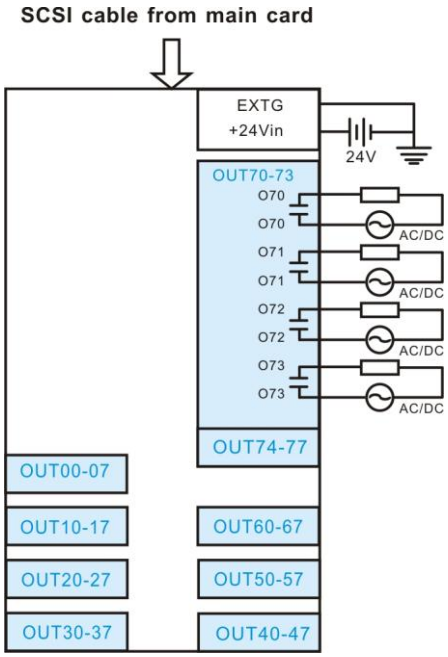


6.2 JM1 JS51050



For byte-programmable TTL I/O IO00 ~ IO07, IO10 ~ IO17 to configured as pull high or pull low. JP1,JP2 are used for output state of power on. (refer 8.2 JP1,JP2 Jumper setting)

7. External wiring diagram

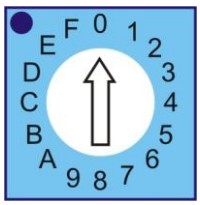


wiring board with Relay output

8. Hardware settings

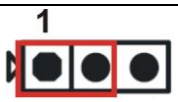
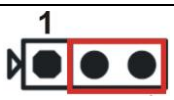
8.1 Card ID setting

Since PCI cards have plug and play function, the card ID is required for programmer to identify which card he/she will control without knowing the physical address assigned by the Windows. A rotary switch for distinguishing the 16 identical card.
The following example sets the card ID at 0.



8.2 JP1,JP2 Jumper setting

The TTL I/O can be configured as pull high or pull low by jumper setting.

	
1-2 short Pull High	2-3 short Pull Low

9. Ordering information

PRODUCT	DESCRIPTIONS
DIO3265	64-channel Digital I/O Card for 64 DO Photo-coupler isolated
ADP3265DIN(R)	DIN rail mounted wiring board matched DIO3265 for 64 power Relay output
JS51050	DIN rail mounted dummy wiring board (D type 25P male to terminals) for JM1 TTL I/O
M266868150	68 pin SCSI II cable 1.5M
M266868300	68 pin SCSI II cable 3.0M
M270325X4	D type 25p male-female cable 1.5M
M270325X4S	D type 25p male-female cable 1.5M, shielding
M270325X0	D type 25p male-female cable 3.0M
M270325X0S	D type 25p male-female cable 3.0M, shielding
SM23404	Extension kit for JM1 (bracket and flat cable for 25P female D type connector)