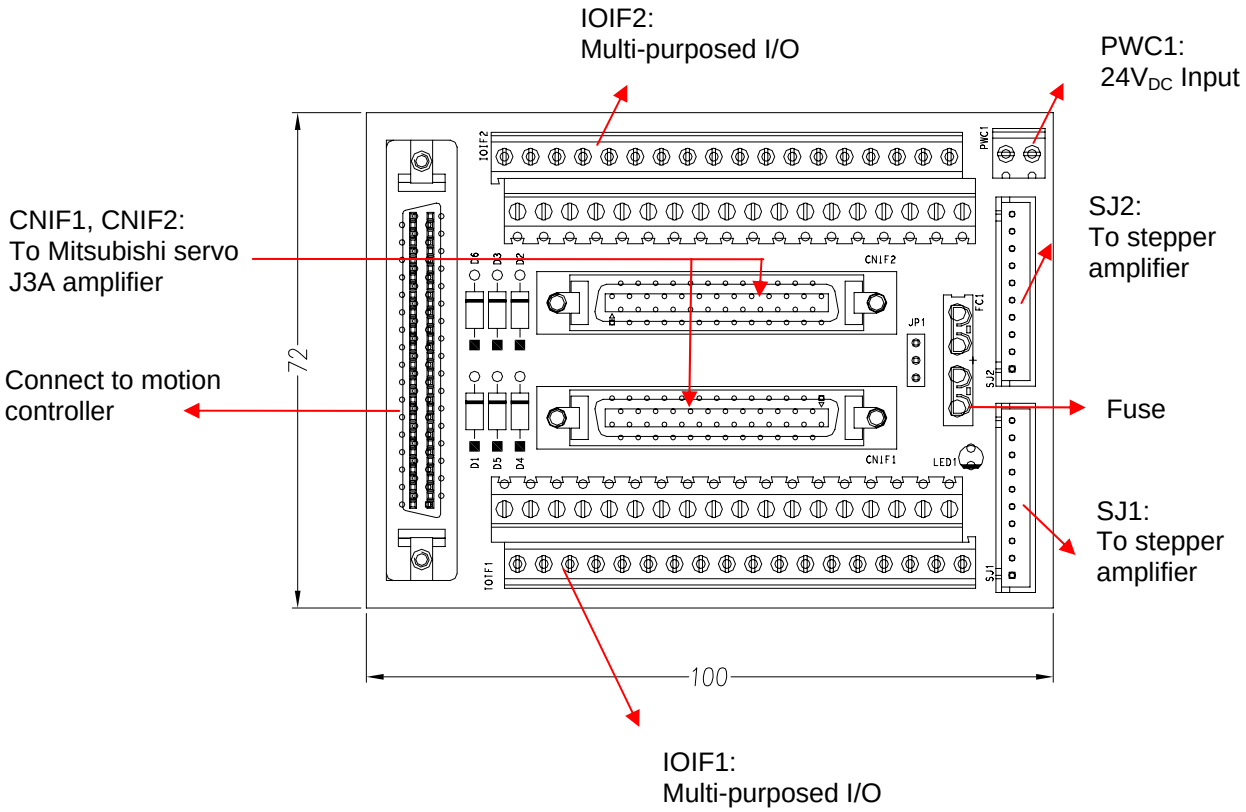
DIN-68M-J3A User Guide

Notice

The DIN-68M-J3A is used for wiring between **Mitsubishi J3A** series servo drivers / stepper with pulse trains input driver and **ADLINK** c**PCI-8168, PCI-8102** motion controller card ONLY. Never use this terminal board with any other servo driver or cards.

P/N: 50-11135-1010 Rev.2.0 (Draft)



Note:

1. **Servo & Stepper:** The DIN-68M-J3A provides 2 connection methods for each axis: CNIF1 & CNIF2 connectors for Mitsubishi J3A series servo drivers, and a SJ connector for stepping drivers. DO NOT use both connectors at the same time.
2. **CNIF1 or CNIF2 cables:** One pin-to-pin 50-PIN cables are required for connection between the CNIF1(CNIF2) and the Mitsubishi J3A driver. It is available from ADLINK, or users may contact the local dealer or distributor to get cable information.
3. **JP1:** Fuse selection. Pin 1-2 short means the board is protected by fuse. Pin 2-3 short means the board is not protected by fuse.
4. **Fuse:** The fuse protects from demaging internal circuit. This guse can sustain 2A current. Users can buy it in local area when the fuse is burnt out.

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PIN Assignments:

1. CNIF1/CNIF2 (Mitsubishi AC Servo Driver J3A)

No.	Name	I/O	Function	No.	Name	I/O	Function
1	P15R	--	15VDC power supply	2	VLA	O	Analog speed limit
3	EXGND	--	Ext. power ground	4	EA+	I	Encoder A-phase (+)
5	EA-	I	Encoder A-phase (-)	6	EB+	I	Encoder B-phase (+)
7	EB-	I	Encoder B-phase (-)	8	EZ+	I	Encoder Z-phase (+)
9	EZ-	I	Encoder Z-phase (-)	10	OUT+	O	Pulse signal (+)
11	OUT-	O	Pulse signal (-)	12	(Empty)	N.C.	
13	(Empty)	N.C.		14	(Empty)	N.C.	
15	SERVO ON	O	Servo On signal	16	SP2	O	Speed selection 2
17	ABSM	O	ABS transfer	18	ABSR	O	ABS request
19	RES	O	Reset	20	EX+24V	I	Ext. power supply, +24V
21	EX+24V	I	Ext. power supply, +24V	22	ABSB0	I	ABS transmission data bit 0
23	ZSP	I	Zero speed	24	INP	I	Servo In Position signal
25	TLC	I	Limiting torque	26	(Empty)	N.C.	
27	TC	O	Analog torque command	28	EXGND	--	Ext. power ground
29	(Empty)	N.C.		30	(Empty)	N.C.	
31	(Empty)	N.C.		32	(Empty)	N.C.	
33	(Empty)	N.C.		34	EXGND	--	Ext. power ground
35	DIR+	O	Direction Signal (+)	36	DIR-	O	Direction Signal (-)
37	(Empty)	N.C.		38	(Empty)	N.C.	
39	(Empty)	N.C.		40	(Empty)	N.C.	
41	ERC SP1	O O	Dev. ctr, clr. Signal Speed selection 1	42	EMG	I	External EMG Signal
43	EXGND	--	Ext. power ground	44	EXGND	--	Ext. power ground
45	LOP	O	Control change	46	EXGND	--	Ext. power ground
47	EXGND	--	Ext. power ground	48	ALM	I	Servo Alarm
49	RDY	I	Servo Ready	50	(Empty)	N.C.	

2. IOIF1/IOIF2 (External Motion Input Signal Interface)

◆ **For cPCI-8168 usage**

No.	Name	I/O	Function	No.	Name	I/O	Function
1	EXGND	--	Ext. power ground	19	EX+24V	I	Ext. power supply, +24V
2	EXGND	--	Ext. power ground	20	EX+24V	I	Ext. power supply, +24V
3	EXGND	--	Ext. power ground	21	EX+24V	I	Ext. power supply, +24V
4	EXGND	--	Ext. power ground	22	EX+24V	I	Ext. power supply, +24V
5	EXGND	--	Ext. power ground	23	EX+24V	I	Ext. power supply, +24V
6	SD EXGND	I --	Slow Down signal Ext. power ground	24	MEL	I	Negative Limit (-)
7	CMP EXGND	O --	Compare Trigger Output Ext. power ground	25	PEL	I	Positive Limit (+)
8	RES	O	Reset signal	26	ORG	I	Origin signal
9	DOUT	O	Digital Output	27	DO_COM	I	Digital Output COM
10	HSOUT AO	O	High Speed DO Analog Output	28	HO_COM AGND	I --	Common of HSOUT Analog Ground
11	DIN	I	Digital Input	29	DI_COM	I	Digital Input COM
12	EMG	I	External EMG Signal	30	HSIN AIN	I	High Speed DI Analog Input
13	ABSB0	I	ABS transmission data bit 0	31	P15R	--	15VDC power supply
14	ABSM	O	ABS transfer	32	ERC SP1	O O	Dev. ctr, clr. Signal Speed selection 1
15	VLA	O	Analog speed limit	33	SP2	O	Speed selection 2
16	ABSR	O	ABS request	34	TC	O	Analog torque command
17	ZSP	I	Zero speed	35	TLC	I	Limiting torque
18	EXGND	--	Ext. power ground	36	LOP	O	Control change

◆ **For PCI-8102 usage**

No.	Name	I/O	Function	No.	Name	I/O	Function
1	EXGND	--	Ext. power ground	19	EX+24V	I	Ext. power supply, +24V
2	EXGND	--	Ext. power ground	20	EX+24V	I	Ext. power supply, +24V
3	EXGND	--	Ext. power ground	21	EX+24V	I	Ext. power supply, +24V
4	EXGND	--	Ext. power ground	22	EX+24V	I	Ext. power supply, +24V
5	EXGND	--	Ext. power ground	23	EX+24V	I	Ext. power supply, +24V
6	LTC/SD/ PCS/CLR	I	Composite signal (Default: LTC)	24	MEL	I	Negative Limit (-)
7	EXGND DOUT1	-- O	Ext. power ground (IOIF 1 usage) Digital Output signal 1 (IOIF 2 usage)	25	PEL	I	Positive Limit (+)
8	RES	O	Reset signal	26	ORG	I	Origin signal
9	CMP1 DOUT0	O	TTL Compared Output 1 Digital Output signal 0	27	DIN2	I	Digital Input 2
10	PB+_ISO DIN1	I	Manual Pulser Input B (IOIF 1 usage) Digital Input 1 (IOIF 2 usage)	28	PA-_ISO DIN0	I	Manual Pulser Input A (IOIF 1 usage) Digital Input 1 (IOIF 2 usage)
11	CMP0 DIN3	O I	TTL compared output 0 (IOIF 1 usage) Digital Input 3 (IOIF 2 usage)	29	PB-_ISO	I	Manual Pulser Input B
12	*EMG	I	External EMG Signal	30	PA+_ISO *IEMG	I	Manual Pulser Input A (IOIF 1 usage) External EMG Signal (IOIF 2 usage)
13	ABSB0	I	ABS transmission data bit 0	31	P15R	--	15VDC power supply
14	ABSM	O	ABS transfer	32	ERC SP1	O O	Dev. ctr, clr. Signal Speed selection 1
15	VLA	O	Analog speed limit	33	SP2	O	Speed selection 2
16	ABSR	O	ABS request	34	TC	O	Analog torque command
17	ZSP	I	Zero speed	35	TLC	I	Limiting torque
18	EXGND	--	Ext. power ground	36	LOP	O	Control change

Note (*): Pin 12 (EMG) links to servo driver ONLY; Pin 30 (IEMG) links to PCI-8102 ONLY. If you need to immediate stop the servo driver and controller in the same time, therefore, you have to wire the EMG and IEMG signal together.

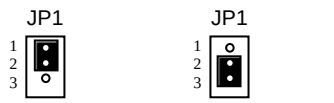
3. SJ1/SJ2 (Stepping Motor Control Interface)

No.	Name	I/O	Function
1	OUT+	O	Pulse Signal (+)
2	OUT-	O	Pulse Signal (-)
3	DIR+	O	Direction Signal (+)
4	DIR-	O	Direction Signal (-)
5	EZ+	I	Index Signal
6	ALM	I	Servo Alarm
7	+5V	O	Voltage output
8	Servo ON	O	Servo On
9	+5V	O	Voltage output
10	EXGND	--	Ext. power ground

4. PWC1 (External +24VDC Input Connector)

No.	Name	I/O	Function
1	EXGND	--	External Power Supply Ground
2	EX+24V	I	External Power Supply Input (+24V DC ± 5%)

5. JP1 (Setting for fuse)

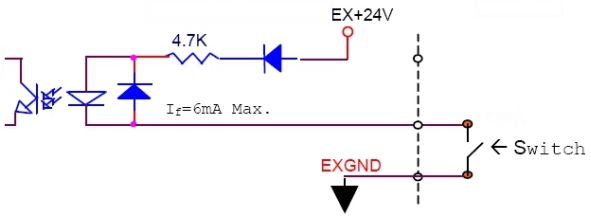


With fuse Without fuse(default)

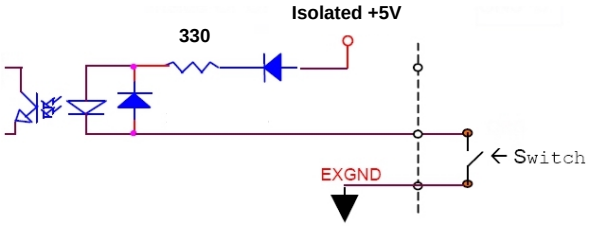
- Signal Connections of Interface Circuit

1. PEL、MEL、ORG 、INP、ALM、RDY

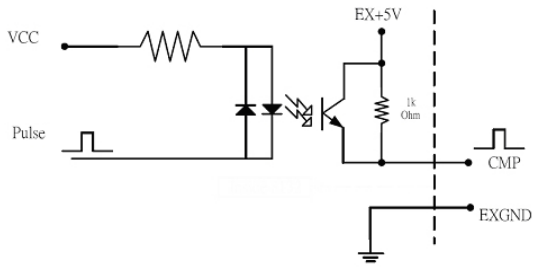
➢ cPCI-8168:



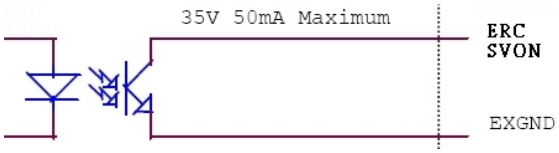
➢ PCI-8102:



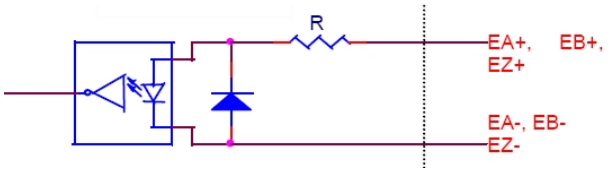
2. CMP



3. ERC、SVON

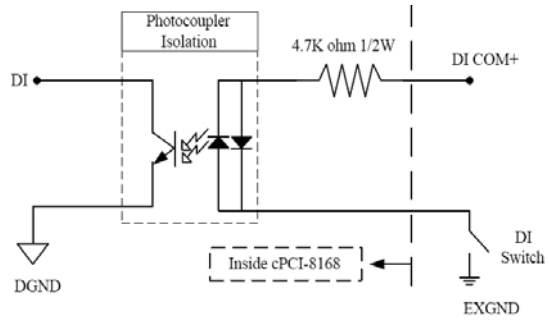


4. EA+、EB+、EZ+、EA-、EB-、EZ-

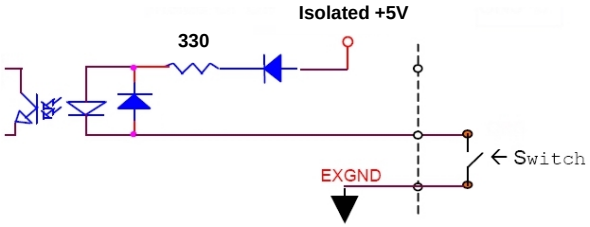


5. DIN、DI_COM

- cPCI-8168:

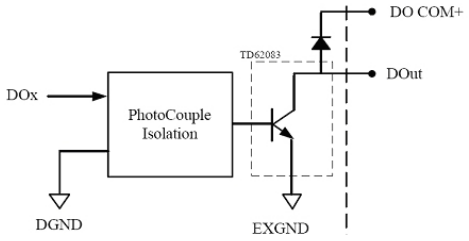


- PCI-8102:

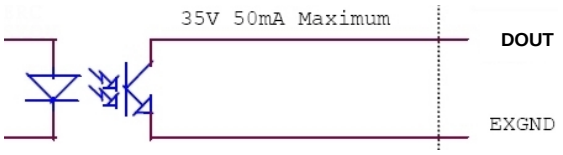


6. DOUT、DO_COM

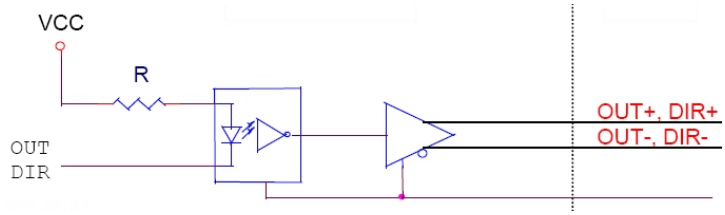
- cPCI-8168:



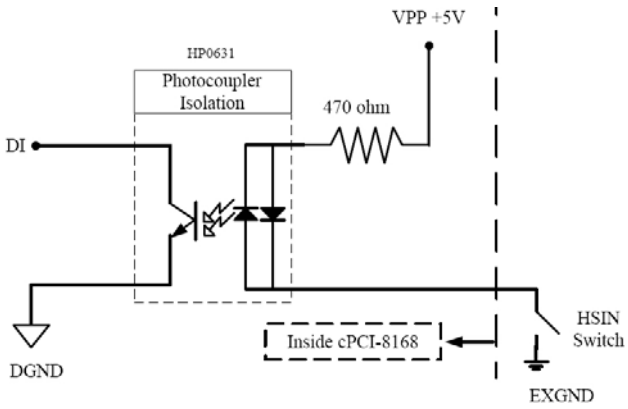
- PCI-8102:



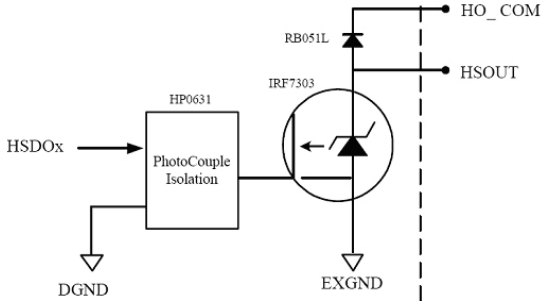
7. DIR+、OUT +、DIR-、OUT-



8. HSIN



9. HSOUT、HO_COM



- Mechanical Dimensions

