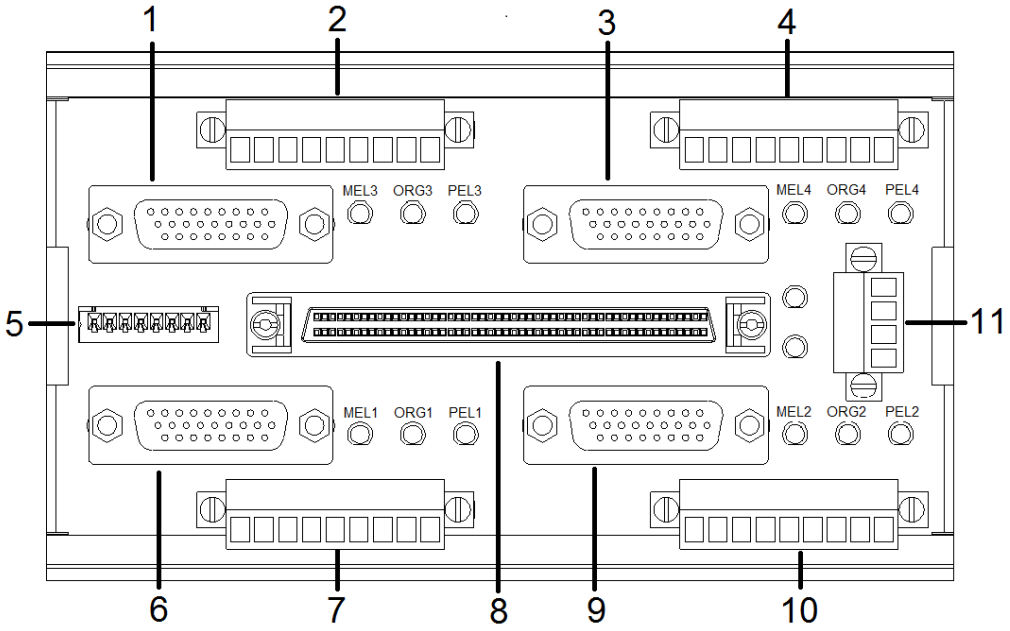
DIN-814-GP
Quick Reference Guide

WARNING:	The **DIN-814-GP** is used for wiring between **any** well-known servo driver/stepper with a pulse train input driver and **ADLINK's PCI-8134/ 64/54/58** motion control cards **ONLY**. **Never** use this terminal board with other motion control cards.

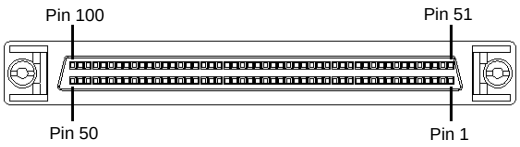
I/O Interface



Connectors

Item	Label	Description
1	CM3	26-pin connector to dock specific cables to drive your servo / stepper drivers, including the Mitsubishi J2S series; Mitsubishi J3A series; Yaskawa Sigma II, III & V series; Panasonic MINAS A4 series; Delta A2 series; and any others servo / stepper driver using general purpose cables with one-side OPEN design.
2	IOIF3	9-pin connector to wire motion signals, including EL+/EL-/ORG and GPIO.
3	CM4	26-pin connector to dock specific cables to drive your servo / stepper drivers, including the Mitsubishi J2S series; Mitsubishi J3A series; Yaskawa Sigma II, III & V series; Panasonic MINAS A4 series; Delta A2 series; and any others servo / stepper driver using general purpose cables with one-side OPEN design.
4	IOIF4	9-pin connector to wire motion signals, including EL+/EL-/ORG and GPIO.
5	CN3	One 8-pin connector used to connect the brake signals from the servo driver.
6	CM1	26-pin connector to dock specific cables to drive your servo / stepper drivers, including the Mitsubishi J2S series; Mitsubishi J3A series; Yaskawa Sigma II, III & V series; Panasonic MINAS A4 series; Delta A2 series; and any others servo / stepper driver using general purpose cables with one-side OPEN design.
7	IOIF7	9-pin connector to wire motion signals, including EL+/EL-/ORG and GPIO.
8	CN1	One SCSI 100-pin connector, the main connector to command and receive feedback for all motion control signals.
9	CM2	26-pin connector to dock specific cables to drive your servo / stepper drivers, including the Mitsubishi J2S series; Mitsubishi J3A series; Yaskawa Sigma II, III & V series; Panasonic MINAS A4 series; Delta A2 series; and any others servo / stepper driver using general purpose cables with one-side OPEN design.
10	IOIF2	9-pin connector to wire motion signals, including EL+/EL-/ORG and GPIO.
11	CN2	Main power and EMG connector.

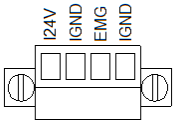
Pin Assignments:



CN1: SCSI 100-pin connector

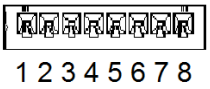
No.	Name	I/O	Function	No.	Name	I/O	Function
1	D5V	--	Digital 5V(reserve)	**51**	D5V	--	Digital 5V(reserve)
2	IGND	--	Ext. power ground	**52**	IGND	--	Ext. power ground
3	OUT1+	I	Pulse signal (+)	**53**	OUT3+	I	Pulse signal (+)
4	OUT1-	I	Pulse signal (-)	**54**	OUT3-	I	Pulse signal (-)
5	DIR1+	I	Dir. Signal(+)	**55**	DIR3+	I	Dir. Signal(+)
6	DIR1-	I	Dir. Signal(-)	**56**	DIR3-	I	Dir. Signal(-)
7	SVON1	I	Servo On signal	**57**	SVON3	I	Servo On signal
8	ERC1	I	Dev. Ctr, clr. Signal	**58**	ERC3	I	Dev. Ctr, clr. Signal
9	ALM1	O	Alarm signal	**59**	ALM3	O	Alarm signal
10	INP1	O	In-position signal	**60**	INP3	O	In-position signal
11	RDY1	O	Ready signal	**61**	RDY3	O	Ready signal
12	IGND	--	Ext. power ground	**62**	IGND	--	Ext. power ground
13	EA1+	O	Encoder A-phase(+)	**63**	EA3+	O	Encoder A-phase(+)
14	EA1-	O	Encoder A-phase(-)	**64**	EA3-	O	Encoder A-phase(-)
15	EB1+	O	Encoder B-phase(+)	**65**	EB3+	O	Encoder B-phase(+)
16	EB1-	O	Encoder B-phase(-)	**66**	EB3-	O	Encoder B-phase(-)
17	EZ1+	O	Encoder Z-phase(+)	**67**	EZ3+	O	Encoder Z-phase(+)
18	EZ1-	O	Encoder Z-phase(-)	**68**	EZ3-	O	Encoder Z-phase(-)
19	D5V	--	Digital 5V	**69**	D5V	--	Digital 5V
20	IGND	--	Ext. power ground	**70**	IGND	--	Ext. power ground
21	OUT2+	I	Pulse signal (+)	**71**	OUT4+	I	Pulse signal (+)
22	OUT2-	I	Pulse signal (-)	**72**	OUT4-	I	Pulse signal (-)
23	DIR2+	I	Dir. Signal(+)	**73**	DIR4+	I	Dir. Signal(+)
24	DIR2-	I	Dir. Signal(-)	**74**	DIR4-	I	Dir. Signal(-)
25	SVON2	I	Servo On signal	**75**	SVON4	I	Servo On signal
26	ERC2	I	Dev. Ctr, clr. Signal	**76**	ERC4	I	Dev. Ctr, clr. Signal
27	ALM2	O	Alarm signal	**77**	ALM4	O	Alarm signal
28	INP2	O	In-position signal	**78**	INP4	O	In-position signal
29	RDY2	O	Ready signal	**79**	RDY4	O	Ready signal
30	IGND	--	Ext. power ground	**80**	IGND	--	Ext. power ground
31	EA2+	O	Encoder A-phase(+)	**81**	EA4+	O	Encoder A-phase(+)
32	EA2-	O	Encoder A-phase(-)	**82**	EA4-	O	Encoder A-phase(-)
33	EB2+	O	Encoder B-phase(+)	**83**	EB4+	O	Encoder B-phase(+)
34	EB2-	O	Encoder B-phase(-)	**84**	EB4-	O	Encoder B-phase(-)
35	EZ2+	O	Encoder Z-phase(+)	**85**	EZ4+	O	Encoder Z-phase(+)
36	EZ2-	O	Encoder Z-phase(-)	**86**	EZ4-	O	Encoder Z-phase(-)
37	PEL1	O	Plus end limit signal	**87**	PEL3	O	Plus end limit signal
38	MEL1	O	Minus end limit signal	**88**	MEL3	O	Minus end limit signal
39	GPIOA1	I/O	Multi-purpose signal	**89**	GPIOA3	I/O	Multi-purpose signal
40	GPIOB1	I/O	Multi-purpose signal	**90**	GPIOB3	I/O	Multi-purpose signal
41	ORG1	O	Original signal	**91**	ORG3	O	Original signal
42	IGND	--	Ext. power ground	**92**	IGND	--	Ext. power ground
43	PEL2	O	Plus end limit signal	**93**	PEL4	O	Plus end limit signal
44	MEL2	O	Minus end limit signal	**94**	MEL4	O	Minus end limit signal
45	GPIOA2	I/O	Multi-purpose signal	**95**	GPIOA4	I/O	Multi-purpose signal
46	GPIOB2	I/O	Multi-purpose signal	**96**	GPIOB4	I/O	Multi-purpose signal
47	ORG2	O	Original signal	**97**	ORG2	O	Original signal
48	IGND	--	Ext. power ground	**98**	IGND	--	Ext. power ground
49	IGND	--	Ext. power ground	**99**	I24V	--	Ext. power supply, +24V
50	IGND	--	Ext. power ground	**100**	I24V	--	Ext. power supply, +24V

CN2: Main Power and EMG Connector



No.	Name	I/O	Function	No.	Name	I/O	Function
1	IGND	--	Ext. power ground	3	IGND	--	Ext. power ground
2	EMG	I	Emergency signal	4	I24V	--	Ext. power supply, +24V

CN3: 8-pin Connector

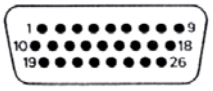


No.	Name	I/O	Function	No.	Name	I/O	Function
1	BRAKE1+	I	Brake signal(+)	5	BRAKE3+	I	Brake signal(+)
2	BRAKE1-	I	Brake signal(-)	6	BRAKE3-	I	Brake signal(-)
3	BRAKE2+	I	Brake signal(+)	7	BRAKE4+	I	Brake signal(+)
4	BRAKE2-	I	Brake signal(-)	8	BRAKE4-	I	Brake signal(-)

IOIF1-IOIF4: 9-pin Connectors

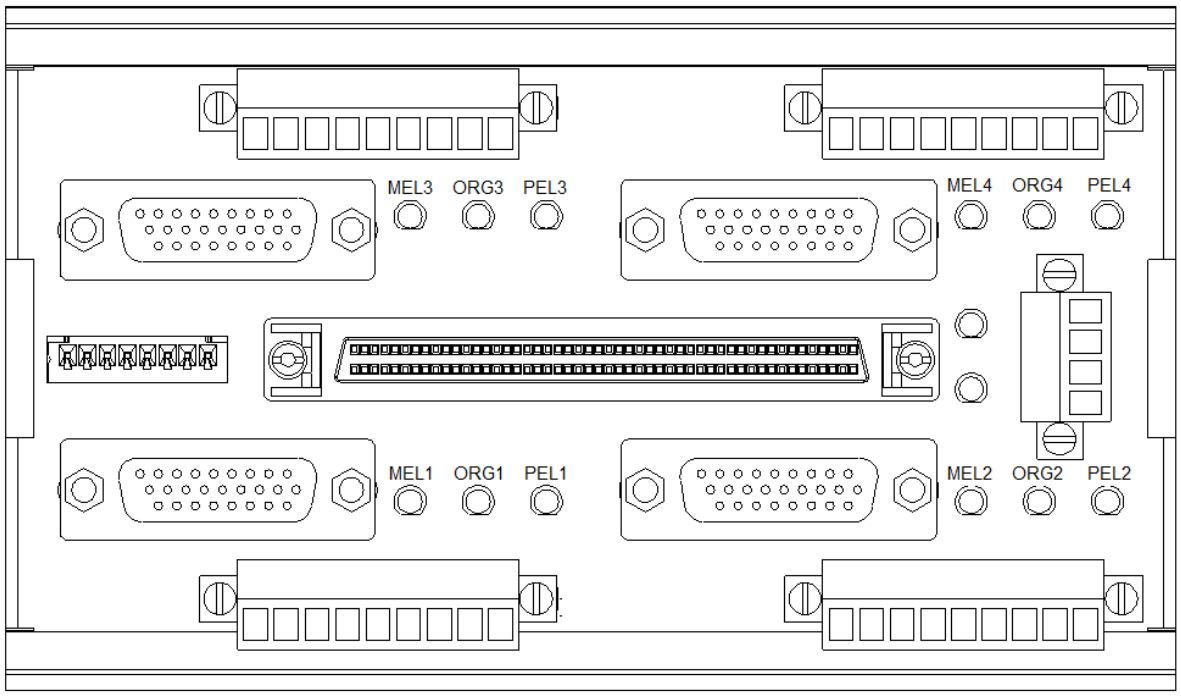
No.	Name	I/O	Function	No.	Name	I/O	Function
1	I24V	--	Ext. power supply, +24V	6	RST*	I	Reset driver signal
2	MEL*	I	Minus end limit signal	7	IGND	--	Ext. power ground
3	ORG*	I	Original signal	8	GPIOA*	I/O	Multi-purpose signal
4	PEL*	I	Plus end limit signal	9	IGND	--	Ext. power ground
5	GPIOB*	I/O	Multi-purpose signal	-	--	--	--

CM1-CM4: 26-pin Connectors



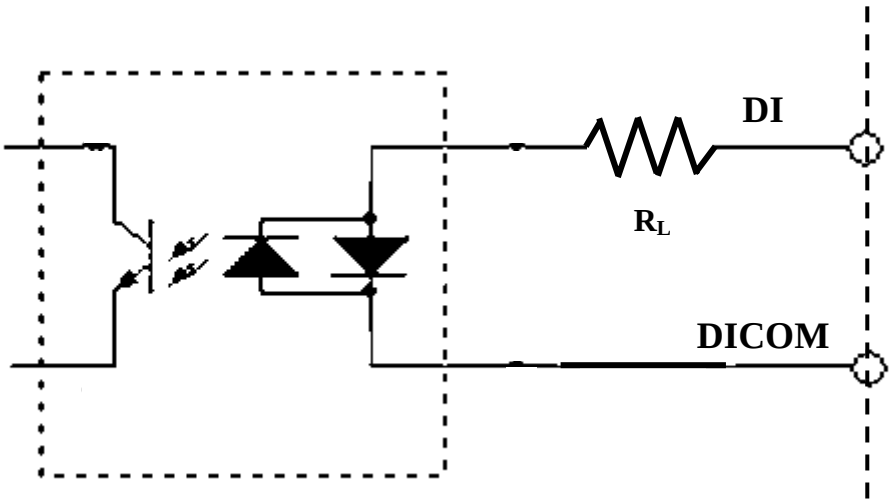
No.	Name	I/O	Function	No.	Name	I/O	Function
1	SVON*	O	Servo On signal	14	BRAKE*-	O	Brake signal(-)
2	INP*	I	In-position signal	15	IGND	--	Ext. power ground
3	ERC*	O	Dev. Ctr, clr. Signal	16	EB*-	I	Encoder B-phase(-)
4	RDY*	I	Ready signal	17	EB*+	I	Encoder B-phase(+)
5	OUT*-	O	Pulse signal (-)	18	IGND	--	Ext. power ground
6	OUT*+	O	Pulse signal (+)	19	EMG	O	Emergency signal
7	EA*-	I	Encoder A-phase(-)	20	IGND	--	Ext. power ground
8	EA*+	I	Encoder A-phase(+)	21	IGND	--	Ext. power ground
9	BRAKE*+	O	Brake signal(+)	22	IGND	--	Ext. power ground
10	RST*	O	Reset driver signal	23	DIR*-	O	Dir. Signal(-)
11	ALM*	I	Alarm signal	24	DIR*+	O	Dir. Signal(+)
12	I24V	--	Ext. power supply, +24V	25	EZ*-	I	Encoder Z-phase(-)
13	IGND	--	Ext. power ground	26	EZ*+	I	Encoder Z-phase(+)

Wiring Examples: Interface Circuit Signal Connections



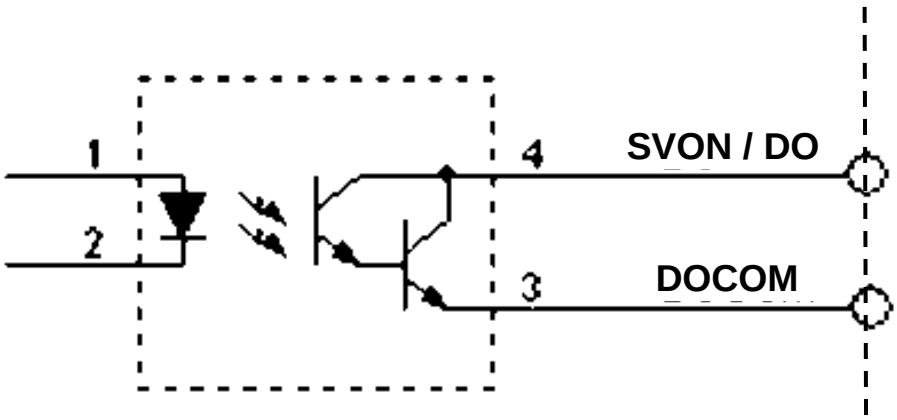
PEL, MEL, ORG, INP, ALM, and EDI

Circuit on PCI motion card:



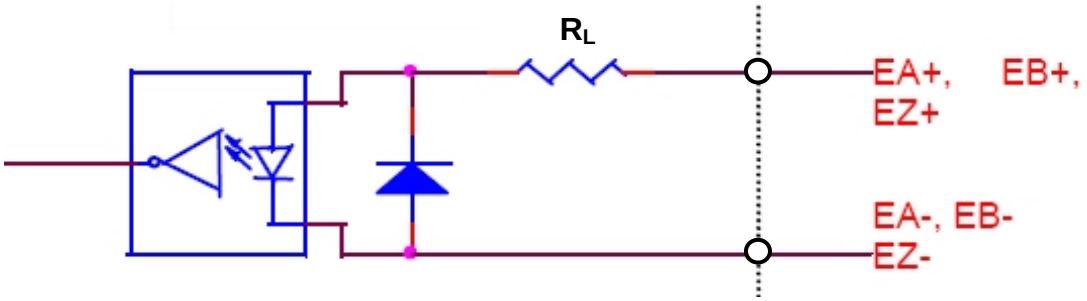
SVON and DO

Circuit on PCI motion card:



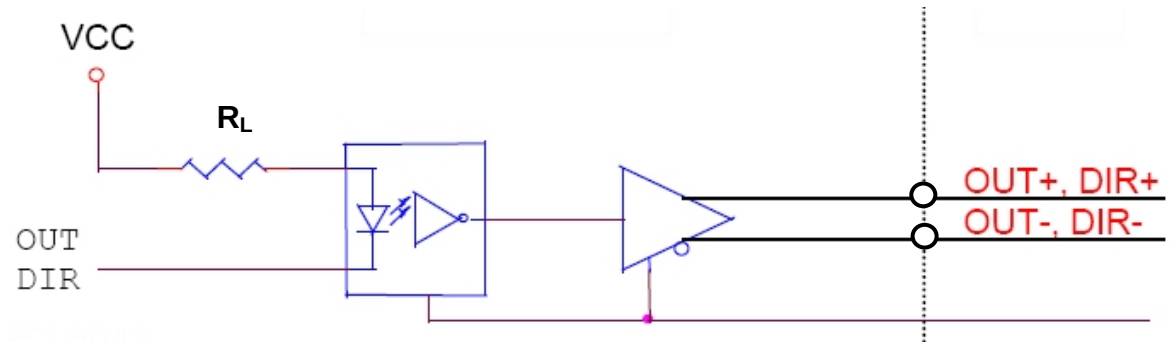
EA+, EB+, EZ+, EA-, EB-, and EZ-

Circuit on PCI motion card:



DIR+, OUT +, DIR-, and OUT-

Circuit on PCI motion card:



Mechanical Dimensions

All dimensions in millimeters