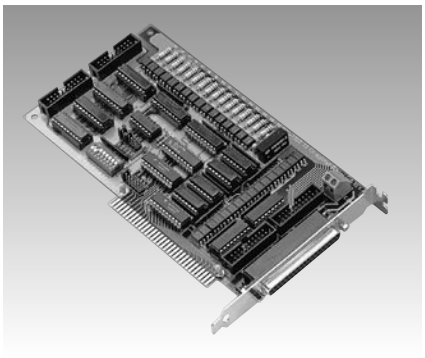
PCL-730
PCL-733
PCL-734

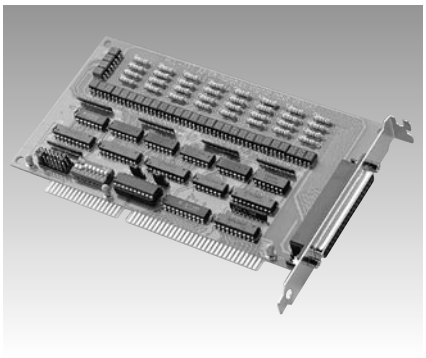
32-ch. Isolated Digital I/O Card

32-ch. Isolated Digital Input Card

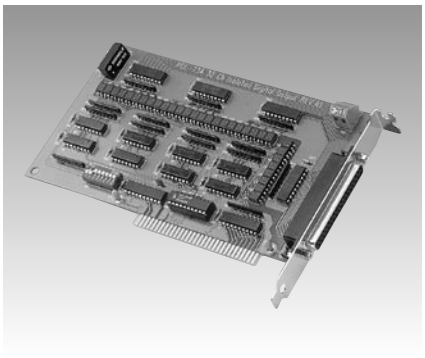
32-ch. Isolated Digital Output Card



PCL-730



PCL-733



PCL-734

Features

- 32 isolated DIO channels (16 inputs and 16 outputs)
- 32 TTL-level DIO channels (16 inputs and 16 outputs)
- High output driving capacity
- High-voltage isolation on isolated I/O channels (2,500 V_{DC})
- Interrupt capability
- Two 20-pin connectors for isolated digital I/O channels and two for TTL digital I/O channels
- D-type connector for isolated input and output channels

Features

- 32 isolated, bidirectional digital input channels
- High-voltage isolation (2,500 V_{DC})
- Interrupt capacity
- D-type connectors for isolated input channels
- Reverse voltage protection for isolated input channels (up to 24 V_{DC})

Features

- 32 isolated digital output channels
- High output driving capacity
- High-voltage isolation on output channels (1,000 V_{DC})
- High sink current on isolated output channels (200 mA/channel)
- Integral suppression diodes for inductive loads
- Wide output range (5 ~ 40 V_{DC})
- D-type connectors for isolated output channels

Introduction

The PCL-730/733/734 cards offer isolated digital input channels as well as isolated digital output channels with isolation protection up to 2,500 V_{DC}, which makes it ideal for industrial applications where high-voltage isolation is required. In addition, all output channels are provide high-voltage protection.

Specifications

Isolated Digital Input

	PCL-730	PCL-733
Input Channels	16 (16-ch/group)	32 (16-ch/group)
Interrupt Inputs	2 (IDI0, IDI1)	2 (IDI0, IDI16)
Interrupt Level	2 ~ 7	2, 3, 5, 7, 10, 11, 12, 15
Input Voltage	5 ~ 24 V_{DC}	
Input Resistance	1.2 kΩ @ 0.5 W	
Optical Isolation	2,500 V_{DC}	

Isolated Digital Output

	PCL-730	PCL-734
Output Channels	16 (16-ch/group)	32 (16-ch/group)
Optical Isolation	2,500 V_{DC}	1,000 V_{DC}
Throughput	10 kHz	
Supply Voltage	5 ~ 40 V_{DC}	
Sink Current	200 mA max./channel	

General

		PCL-730	PCL-733	PCL-734
I/O Connector Type		37-pin D-type female		
Dimensions (L x H)		185 x 100 mm (7.3" x 3.9")		
Power Consumption	**Typical**	+5 V @ 330 mA	+5 V @ 320 mA	+5 V @ 330 mA
	Max.	+5 V @ 500 mA	+5 V @ 500 mA	+5 V @ 500 mA
Temperature	**Operating**	0 ~ 60° C (32 ~ 140° F)		
	Storage	-20 ~ 70° C (-4 ~ 158° F)		
Relative Humidity		5 ~ 95% RH non-condensing (refer to IEC 68-2-3)		

Note: The PCL-730 also provides 16-ch TTL Digital Input and 16-ch TTL Digital Output. Please refer to the PCL-730 User's Manual for the detail information.

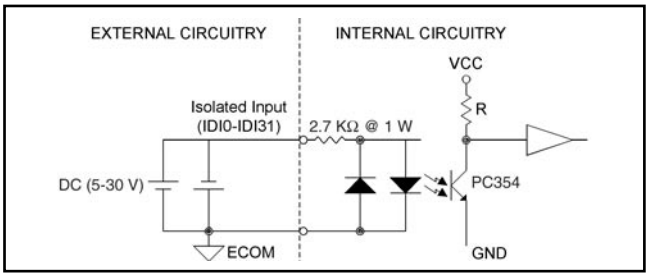
Ordering Information

- **PCL-730** 32-channel isolated digital I/O card, user's manual and driver CD-ROM (cable not included)
- **PCL-733** 32-channel isolated digital input card, user's manual and driver CD-ROM (cable not included)
- **PCL-734** 32-channel isolated digital output card, user's manual and driver CD-ROM (cable not included)
- **PCL-10120-1** 20-pin flat cable, 1 m (for PCL-730 only)
- **PCL-10120-2** 20-pin flat cable, 2 m (for PCL-730 only)

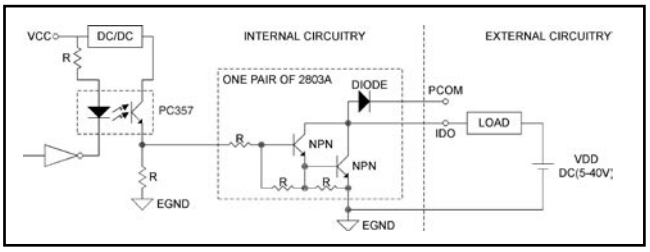
- **PCL-10137-1** DB37 cable assembly, 1m
- **PCL-10137-2** DB37 cable assembly, 2m
- **PCL-10137-3** DB37 cable assembly, 3m
- **PCLD-782** 16-channel opto-isolated D/I board (for PCL-730 only)
- **PCLD-785** 16-channel relay output board (for PCL-730 only)
- **PCLD-786** 8-channel SSR I/O module carrier board (for PCL-730 only)
- **PCLD-885** 16-channel power relay (form A) output board (for PCL-730 only)
- **PCLD-780** Universal screw terminal board
- **PCLD-880** Universal screw terminal board
- **ADAM-3920** 20-pin flat cable wiring terminal for DIN-rail mounting (for PCL-730 only)
- **ADAM-3937** DB37 wiring terminal for DIN-rail mounting

Applications

- Industrial On/Off control
- Contact closure monitoring
- Switch status sensing
- BCD interfacing
- Digital input control
- Industrial and lab automation



Isolated Input Circuit Diagram



Isolated Output Circuit Diagram

Pin Assignments

CN1 of PCL-730

IDO 0	1	2	IDO 1
IDO 2	3	4	IDO 3
IDO 4	5	6	IDO 5
IDO 6	7	8	IDO 7
IDO 8	9	10	IDO 9
IDO 10	11	12	IDO 11
IDO 12	13	14	IDO 13
IDO 14	15	16	IDO 15
E.GND	17	18	E.GND
PCOM1/E.GND	19	20	PCOM2

CN2 of PCL-730

IDI 0	1	2	IDI 1
IDI 2	3	4	IDI 3
IDI 4	5	6	IDI 5
IDI 6	7	8	IDI 7
IDI 8	9	10	IDI 9
IDI 10	11	12	IDI 11
IDI 12	13	14	IDI 13
IDI 14	15	16	IDI 15
EI.GND 1	17	18	EI.GND 2
EI.GND 1	19	20	EI.GND 2

CN3 of PCL-730

DO 0	1	2	DO 1
DO 2	3	4	DO 3
DO 4	5	6	DO 5
DO 6	7	8	DO 7
DO 8	9	10	DO 9
DO 10	11	12	DO 11
DO 12	13	14	DO 13
DO 14	15	16	DO 15
D.GND	17	18	D.GND 2
+5V	19	20	+12V

CN4 of PCL-730

DI 0	1	2	DI 1
DI 2	3	4	DI 3
DI 4	5	6	DI 5
DI 6	7	8	DI 7
DI 8	9	10	DI 9
DI 10	11	12	DI 11
DI 12	13	14	DI 13
DI 14	15	16	DI 15
D.GND	17	18	D.GND 2
+5V	19	20	+12V

CN6 of PCL-730

IDI0	1	20	IDI1
IDI2	2	21	IDI3
IDI4	3	22	IDI5
IDI6	4	23	IDI7
IDI8	5	24	IDI9
IDI10	6	25	IDI11
IDI12	7	26	IDI13
IDI14	8	27	IDI15
EI.GND1	9	28	EI.GND2
PCOM1/E.GND	**10**	29	E.GND
IDO0	11	30	IDO1
IDO2	12	31	IDO3
IDO4	13	32	IDO5
IDO6	14	33	IDO7
IDO8	15	34	IDO9
IDO10	16	35	IDO11
IDO12	17	36	IDO13
IDO14	18	37	IDO15
PCOM2	19		

DO Digital output
DI Digital input
IDO Isolated digital output
IDI Isolated digital input
E.GND External ground for isolated output
EI.GND External common for isolated input
D.GND Digital ground
PCOM Free wheeling common diode

CN1 of PCL-733

IDI0	1	20	IDI1
IDI2	2	21	IDI3
IDI4	3	22	IDI5
IDI6	4	23	IDI7
EI.GND1	5	24	IDI8
IDI9	6	25	IDI10
IDI11	7	26	IDI12
IDI13	8	27	IDI14
IDI15	9	28	EI.GND2
IDI16	10	29	IDI17
IDI18	11	30	IDI19
IDI20	12	31	IDI21
IDI22	13	32	IDI23
EI.GND3	14	33	IDI24
IDI25	15	34	IDI26
IDI27	16	35	IDI28
IDI29	17	36	IDI30
IDI31	18	37	EI.GND4
NC	19		

CN1 of PCL-734

IDO0	1	20	IDO1
IDO2	2	21	IDO3
IDO4	3	22	IDO5
IDO6	4	23	IDO7
PCOM1	5	24	IDO8
IDO9	6	25	IDO10
IDO11	7	26	IDO12
IDO13	8	27	IDO14
IDO15	9	28	PCOM2
IDO16	10	29	IDO17
IDO18	11	30	IDO19
IDO20	12	31	IDO21
IDO22	13	32	IDO23
PCOM3	14	33	IDO24
IDO25	15	34	IDO26
IDO27	16	35	IDO28
IDO29	17	36	IDO30
IDO31	18	37	PCOM4
E.GND	19		