Specifications

PCI-PDISO16

MEASUREMENT COMPUTING™

Document Revision 3.2, May, 2006

Specifications

Typical for 25°C unless otherwise specified.

Specifications in *italic text* are guaranteed by design.

Relay specifications

Table 1. Relay specifications

Number	16
Contact Configuration	16 Form C
Contact Rating	*6A @ 120VAC or 28VDC resistive (see connector ratings below)*
Contact Resistance	100 milliohms max
Operate Time	*20 milliseconds*
Release Time	*10 milliseconds max*
Vibration	*10 to 55 Hz (Dual amplitude 1.5mm)*
Shock	*10 G (11 milliseconds)*
Dielectric Isolation	*500 V (1 minute)*
Life Expectancy	*10 million mechanical operations, min*
Power on RESET state	Not energized. NC in contact to Common.

Isolated inputs

Table 2. Isolated input specifications

Number	16	
Isolation	*500V*	
Resistance	1.6 k Ohms min	
Voltage Range	DC:	5 to 28 V (Not TTL compatible)
	AC:	5 to 28 V (50 to 1000 Hz)
Input ‘High’ Level	>5V min (positive or negative input voltage - not TTL compatible)	
Input ‘Low’ Level	<2.5V max (positive or negative input voltage)	
Response	w/o filter:	20 µS
	w/ filter:	5 mS
Filters	Time constant:	5 mS (200Hz)
	Filter control:	Each input individually programmable
	Power-up /reset:	Filters off

Power consumption

Table 3. Power consumption specifications

+5 V power	All relays off	0.7 A typical
	All relays on	2.0 A typical

Environmental

Table 4. Environmental specifications

Operating temperature range	0 to 70 °C
Storage temperature range	-40 to 100 °C
Humidity	0 to 90% non-condensing

Main connector and pin out

Table 5. Main connector specifications

Connector type	50-pin header
Compatible cables	C50FF-x: 50-pin IDC female to female cable. x = length in feet.
	C50-37F-x: 50-pin IDC to 37-pin female D connector (adaptor cable for connecting to a PCI-PDISO8 compatible interface). x = length in feet.
Compatible accessory products (using the C50FF-x cable)	CIO-MINI50 CIO-TERM100 SCB-50
Compatible accessory products (using the C50-37F-x cable)	CIO-MINI37 CIO-TERMINAL SCB-37
Max current	3 A

Note that the PCI-PDISO16 board has two 50-pin connectors, identified on the board as **P2** and **P3**. **P2** is located adjacent to the main I/O connector bracket at the left side of the board. **P3** is located towards the middle-right side of the board.

Table 6. P2 connector pin out

Pin	Signal Name	Pin	Signal Name
50	NC	49	NC
48	NC	47	NC
46	NC	45	NC
44	NC	43	NC
42	NC	41	NC
40	RELAY 6 (NC)	39	RELAY 5 (NC)
38	RELAY 7 (NC)	37	RELAY 0 (NO)
36	RELAY 0 (C)	35	RELAY 0 (NC)
34	RELAY 1 (NO)	33	RELAY 1 (C)
32	RELAY 1 (NC)	31	RELAY 2 (NO)
30	RELAY 2 (C)	29	RELAY 2 (NC)
28	RELAY 3 (NO)	27	RELAY 3 (C)
26	RELAY 3 (NC)	25	RELAY 4 (NO)
24	RELAY 4 (C)	23	RELAY 4 (NC)
22	RELAY 5 (NO)	21	RELAY 5 (C)
20	RELAY 6 (NO)	19	RELAY 6 (C)
18	RELAY 7 (NO)	17	RELAY 7 (C)
16	INPUT 0	15	INPUT 0
14	INPUT 1	13	INPUT 1
12	INPUT 2	11	INPUT 2
10	INPUT 3	9	INPUT 3
8	INPUT 4	7	INPUT 4
6	INPUT 5	5	INPUT 5
4	INPUT 6	3	INPUT 6
2	INPUT 7	1	INPUT 7

Table 7. P3 connector pin out

Pin	Signal Name	Pin	Signal Name
50	NC	49	NC
48	NC	47	NC
46	NC	45	NC
44	NC	43	NC
42	NC	41	NC
40	RELAY 6 (NC)	39	RELAY 5 (NC)
38	RELAY 7 (NC)	37	RELAY 0 (NO)
36	RELAY 0 (C)	35	RELAY 0 (NC)
34	RELAY 1 (NO)	33	RELAY 1 (C)
32	RELAY 1 (NC)	31	RELAY 2 (NO)
30	RELAY 2 (C)	29	RELAY 2 (NC)
28	RELAY 3 (NO)	27	RELAY 3 (C)
26	RELAY 3 (NC)	25	RELAY 4 (NO)
24	RELAY 4 (C)	23	RELAY 4 (NC)
22	RELAY 5 (NO)	21	RELAY 5 (C)
20	RELAY 6 (NO)	19	RELAY 6 (C)
18	RELAY 7 (NO)	17	RELAY 7 (C)
16	INPUT 0	15	INPUT 0
14	INPUT 1	13	INPUT 1
12	INPUT 2	11	INPUT 2
10	INPUT 3	9	INPUT 3
8	INPUT 4	7	INPUT 4
6	INPUT 5	5	INPUT 5
4	INPUT 6	3	INPUT 6
2	INPUT 7	1	INPUT 7

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