

CIO-PDISO16

Specifications



**MEASUREMENT
COMPUTING™**

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Specifications

All specifications are subject to change without notice.

Typical for 25°C unless otherwise specified.

Specifications in *italic text* are guaranteed by design.

Relay specifications

Table 1. Relay specifications

<i>Number of relays</i>	16
<i>Contact configuration</i>	16 form C, SPDT
<i>Contact rating (resistive load)</i>	7A/30VDC or 10A/125V AC
<i>Contact resistance</i>	50 milliohms
<i>Coil resistance</i>	70 ohms
<i>Isolation</i>	<i>Between open contacts:</i> 750 VAC, 50/60 Hz, 1 min.
	<i>Between coil and contacts:</i> 1500 VAC, 50/60 Hz, 1 min.
<i>Operate time</i>	10 milliseconds max.
<i>Release time</i>	5 milliseconds max.
<i>Vibration</i>	10 to 55 Hz (dual amplitude 1.5 mm)
<i>Shock</i>	10 G (11 milliseconds)
<i>Insulation resistance</i>	100 M ohms min. (500 V @ 1 minute)
<i>Life expectancy</i>	<i>Mechanical:</i> 10 ⁷ mechanical operations, min.
	<i>Electrical:</i> 100,000 min at full load

Isolated inputs

Table 2. Isolated input specifications

<i>Number</i>	16
<i>Type</i>	Non-polarized, opto-isolated (Not TTL compatible)
<i>Voltage range</i>	DC: 5-28 V
	AC: 5-28 V (50-1000 Hz)
<i>Isolation</i>	500 V
<i>Resistance</i>	1.6 K Ohms min.
<i>Response</i>	<i>without filter:</i> 20 μS
	<i>with filter:</i> 5 mS
<i>Filters</i>	<i>Time constant:</i> 5 ms (200 Hz)
	<i>Filter control:</i> Each input individually switch selectable
	<i>Power-up /reset:</i> Filters off

Power consumption

Table 3. Power consumption specifications

+5 V Power	<i>All relays off:</i> 0.2 A typical
	<i>All relays on:</i> 1.2 A typical

Environmental

Table 4. Environmental specifications

Operating temperature range	0 to 50 °C
Storage temperature range	-20 to 70 °C
Humidity	0 to 90% non-condensing

Main connector and pin out

Table 5. Main connector specifications

Connector type	50-pin male header x2 (optional cable available to translate 50-pin connector to 37 pin connector compatible with CIO-PDISO8)
Dielectric strength	>1000 Vrms
Current rating	1 A
Compatible cables	C50FF-x C50-37F-x (for connector compatibility with the CIO-PDISO8)
Compatible accessory products with the C50FF-x	CIO-MINI50 (requires two cable/terminal board sets)

Table 6. 50-pin Connector pin out

Pin	Signal Name	Pin	Signal Name
50	N/C	49	N/C
48	N/C	47	N/C
46	N/C	45	N/C
44	N/C	43	N/C
42	N/C	41	N/C
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. C50-37F-x cable pin out

Pin	Signal Name	Pin	Signal Name
1	Input 7	20	Input 7
2	Input 6	21	Input 6
3	Input 5	22	Input 5
4	Input 4	23	Input 4
5	Input 3	24	Input 3
6	Input 2	25	Input 2
7	Input 1	26	Input 1
8	Input 0	27	Input 0
9	Relay 7 (C)	28	Relay 7 (NO)
10	Relay 6 (C)	29	Relay 6 (NO)
11	Relay 5 (C)	30	Relay 5 (NO)
12	Relay 4 (NC)	31	Relay 4 (C)
13	Relay 4 (NO)	32	Relay 3 (NC)
14	Relay 3 (C)	33	Relay 3 (NO)
15	Relay 2 (NC)	34	Relay 2 (C)
16	Relay 2 (NO)	35	Relay 1 (NC)
17	Relay 1 (C)	36	Relay 1 (NO)
18	Relay 0 (NC)	37	Relay 0 (C)
19	Relay 0 (NO)		

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