

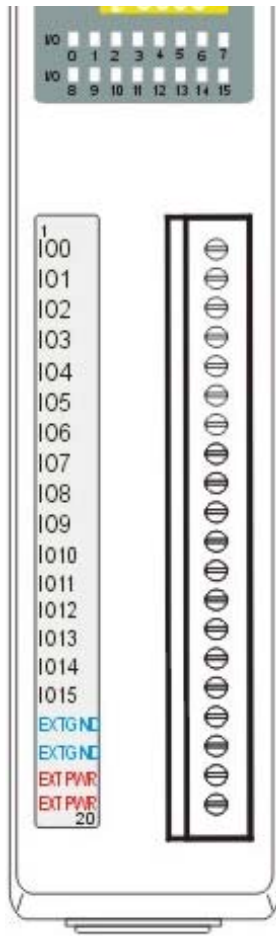
### I-8050 Specification

<b>Channel</b>	8050 is a <b>16</b> -channel universal digital I/O module. Each channel can be configured to be a Digital input or Digital output by <b>programming</b> .
<b>Digital Input</b>	<ul style="list-style-type: none"> <li>• Logical 0 : + 1 V Max (off status).</li> <li>• Logical 1 : + 3.5 to +30V (on status).</li> <li>• Input impedance : 3K<math>\Omega</math>.</li> <li>• Isolated voltage : 3750V rms.</li> </ul>
<b>Digital Output</b>	<ul style="list-style-type: none"> <li>• Output type : Open-collector.</li> <li>• Output range : 100mA/each channel, 30V max.</li> <li>• Isolated voltage : 3750V rms.</li> </ul>
<b>LED Display</b>	<ul style="list-style-type: none"> <li>• 1 LED as Power</li> <li>• 16 LEDs as digital input/output indicators</li> </ul>
<b>Power Requirement</b>	1 W
<b>Temperature</b>	Operating temp : -25 °C~ +75 °C Storage temp : -40 °C~ +80 °C

### I-8050 Pin Assignment

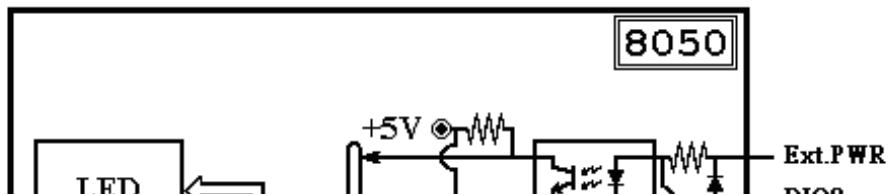
Terminal Number	Pin Name
1	DIO0
2	DIO1
3	DIO2
4	DIO3
5	DIO4
6	DIO5
7	DIO6
8	DIO7

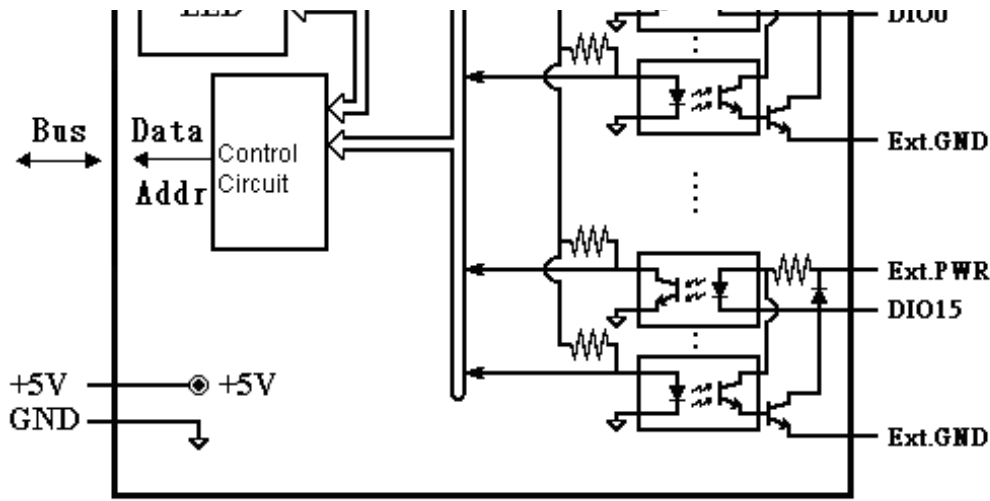




9	DIO8
10	DIO9
11	DIO10
12	DIO11
13	DIO12
14	DIO13
15	DIO14
16	DIO15
17	Ext. GND
18	Ext. GND
19	Ext. PWR
20	Ext. PWR

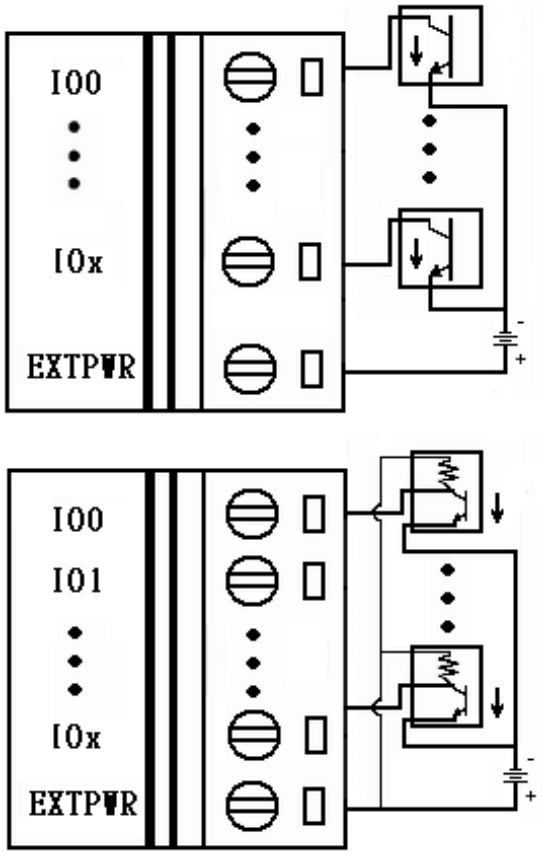
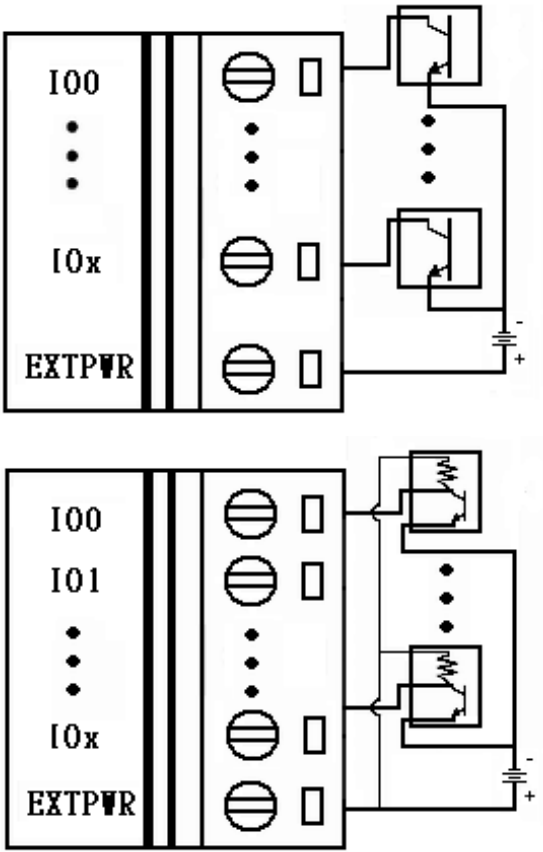
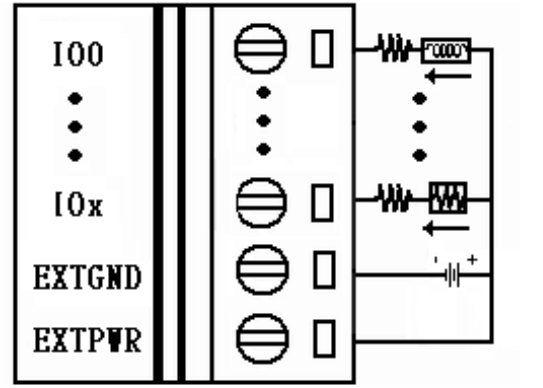
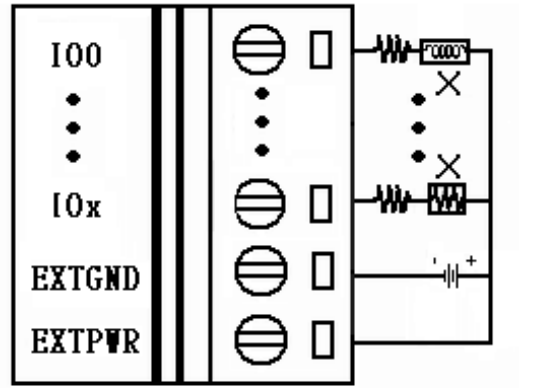
**I-8050 Internal I/O Structure**

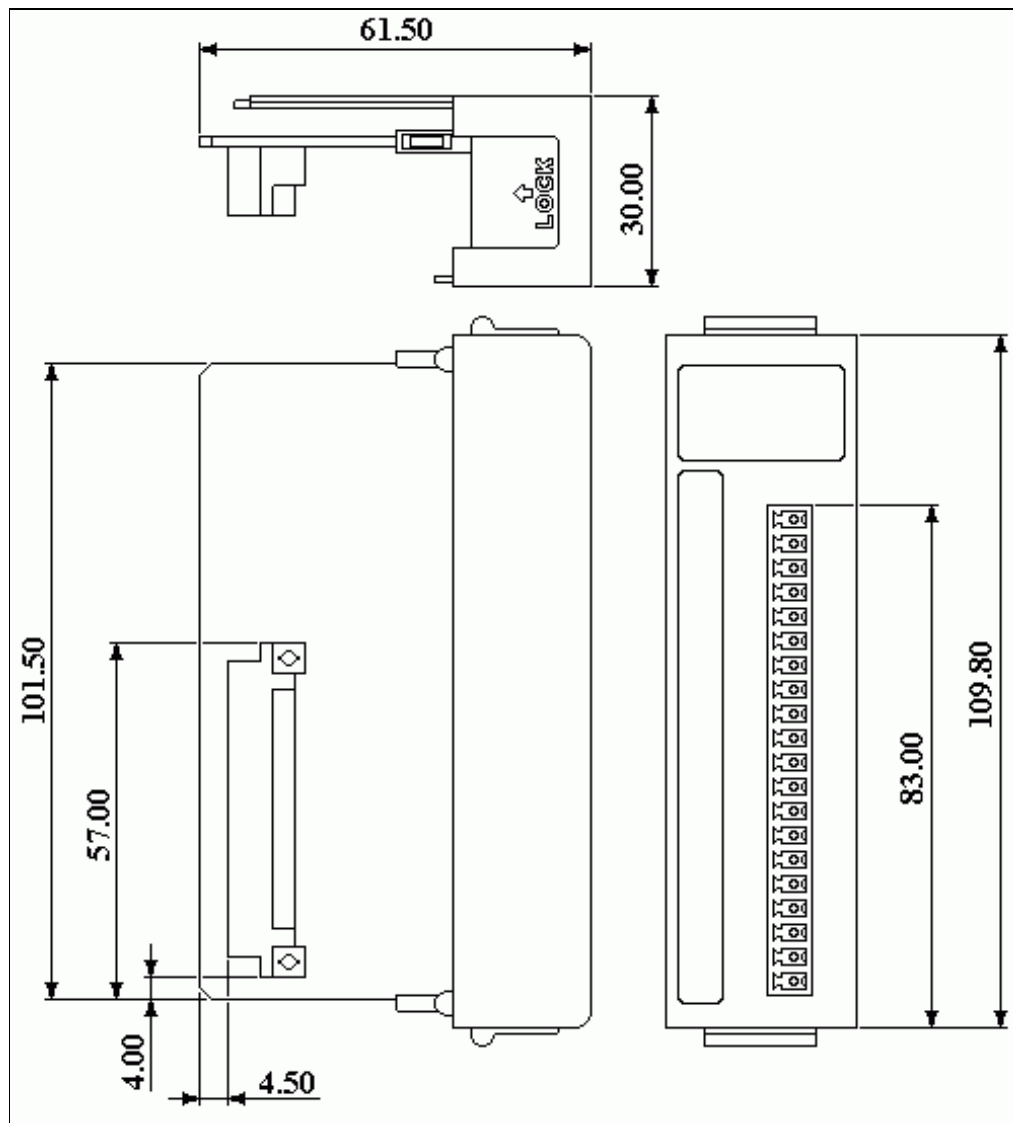




**I-8050 Wire Connection**

Input Type	ON State LED <b>ON</b> Readback as <b>1</b>	OFF State LED <b>OFF</b> Readback as <b>0</b>
Relay Contact	<p>Relay ON</p> <p>The diagram shows a terminal block with pins labeled I00, I01, ..., I0x, and EXTPWR. Each input pin (I00-I0x) is connected to a switch. The EXTPWR pin is connected to a +5V power source. In the 'Relay ON' state, all switches are closed, connecting the input pins to the +5V supply.</p>	<p>Relay Off</p> <p>The diagram shows the same terminal block and power source. In the 'Relay Off' state, all switches are open, disconnecting the input pins from the +5V supply.</p>
TTL/CMOS Logic	<p>Voltage &lt; 1V</p> <p>The diagram shows the terminal block with input pins I00, I01, ..., I0x and EXTPWR. Each input pin is connected to an inverter. The EXTPWR pin is connected to a TTL +5V supply. The output of each inverter is connected to the corresponding input pin, forming a feedback loop.</p>	<p>Voltage &gt; 3.5V</p> <p>The diagram shows the same terminal block and power source. In this configuration, the input pins are connected to a +5V supply through inverters, which are also connected to the EXTPWR pin.</p>

<p>Open Collector</p>	<p>Open Collector On</p> 	<p>Open Collector Off</p> 
	<p>Output Type</p>	<p>ON State LED <b>ON</b> Readback as <b>1</b></p>
<p>Resistance Load</p>		

**I-8050 Dimension****⚠ Warning ⚠**

A channel may be damaged if it is subjected to an input signal while this channel status is changed from DI to DO. **Please remove the input signal before the channel status is changed.**

**Warning**

**Check your wiring !**  
It is better to remove all wiring before you change I/O channel configuration.

**Check your wiring !**  
Although it is safe when DI change to DO and let I/O channel connect to the GND. We still strongly suggest you to remove the wiring.

**Check your wiring !**  
Caution: When DI changes to DO In this case, it will cause serious damage of this channel !!

[Back to Previous Page](#)

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