

In Figure 2-4, Line 0 is configured for digital output; Lines 1 and 2 are configured for digital input.

Digital input applications include receiving TTL signals and sensing external device states such as the switch in Figure 2-4. Digital output applications include sending TTL signals and driving external devices such as the LED shown in Figure 2-4.



Note The NI 6703/6704 devices allow line-by-line direction control of digital I/O connections.

Refer to Appendix A, *Specifications*, for a list of the digital I/O signal ratings.

Power-on State

At power on, all of the DIO lines on the NI 6703/6704 devices are configured as input lines.

Power Connections

Pin 1 on the I/O connector is connected to the +5 V supply from the PCI or PXI bus power supply. This pin is referenced to D GND and can supply power to external circuitry. The +5 V supply has a total of 0.75 A available.

The +5 V power supply has a self-resetting protection circuit breaker in series. If the circuit breaker protection is activated, remove the circuit causing the heavy current load and the circuit breaker will reset itself. For more information on these output pins, refer to the *Digital I/O* section and *Power Requirement* section in Appendix A, *Specifications*.

Power rating 0.75 A at +5 V $\pm 10\%$,
+4.55 to +5.25 VDC at 0.75 A



Caution Never connect these +5 V power pins directly to ground or to any other voltage source on your NI 6703/6704 device or any other device. Doing so can damage your device and your computer system. National Instruments is *not* liable for damage resulting from such a connection.