

**Product overview:**

The WSOI-100 *Wiegand Signal Optical Isolator* is designed to provide isolation between different Wiegand sources. The input side (J1) and output side (J2) are electrically isolated, using optical-couplers to transmit the Wiegand signal from the input side to the output side.

**What is included:**

- UNIT
- Warranty
- Quick Start Guide

**Product applications:**

The WSOI-100 is used primarily in the following applications:

- 1) Connecting two Wiegand readers to one access controller Wiegand port;
- 2) Connecting one Wiegand reader to two different access controllers;
- 3) Connecting Wiegand devices that operate the Wiegand lines at different voltage levels.

The WSOI-100 is necessary when the Wiegand devices in these applications operate the Wiegand data lines at different voltages. The WSOI-100 may also be used in applications where Wiegand devices are not able to be electrically connected, such as issues with power supplies or pull-up resistors.

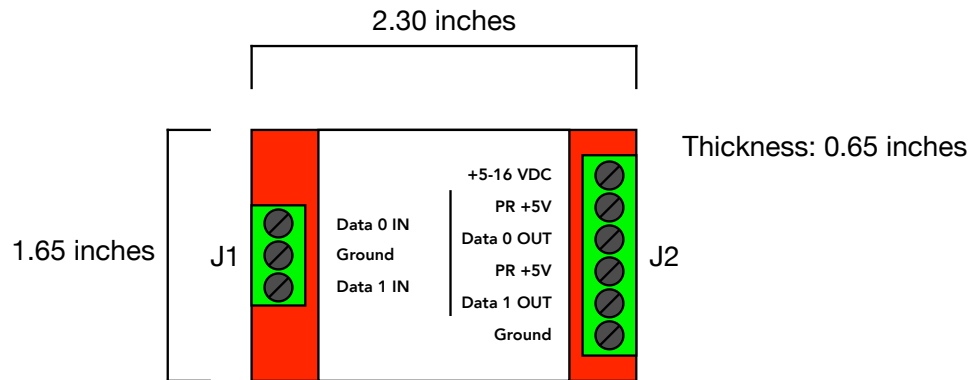
**Bench testing:**

**With existing access control equipment:**

Since bench testing is not practical in these applications, follow the appropriate Quick Start Guide wiring diagram, install the WSOI-100 with the existing equipment, and test the system thoroughly.

**With new access control equipment:**

Bench testing is recommended. Refer to the appropriate Quick Start Guide wiring diagram and set up a bench test accordingly before installing equipment in the field.



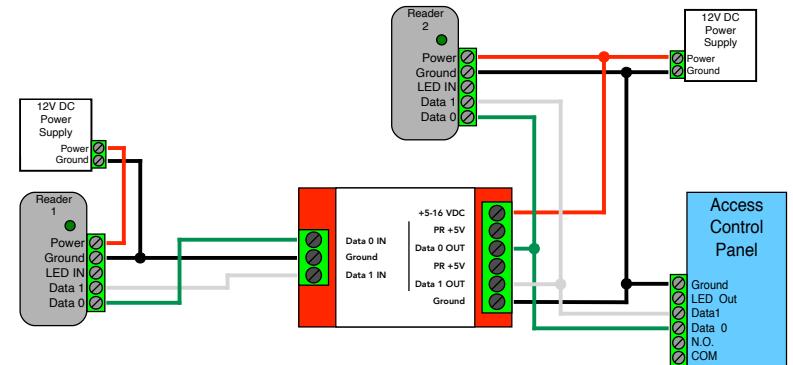
**J1 Header:**

- Data 1 IN** - Wiegand Data Input 5-24 VDC
- Ground** - Common Data Ground
- Data 0 IN** - Wiegand Data Input 5-24 VDC

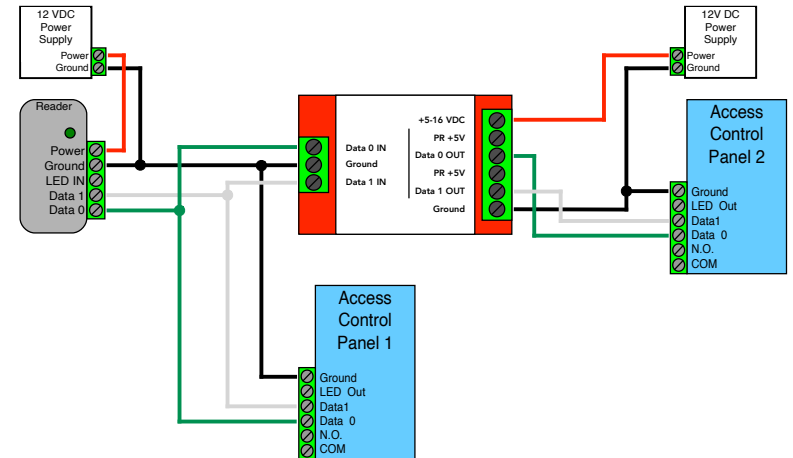
**J2 Header:**

- +5-16 VDC** - Power Input, 12 VDC @ 20mA
- PR +5V** - Connection to pull-up resistor, 1.5K @ 5VDC
- Data 0 OUT** - Wiegand Data Output 5 VDC
- PR +5V** - Connection to pull-up resistor, 1.5K @ 5VDC
- Data 1 OUT** - Wiegand Data Output 5 VDC
- Ground** - Power and Common Data Ground

Wiring Diagram - Two Readers to One Access Controller



Wiring Diagram - One Reader to Two Access Controllers



Wiring Diagram - One Reader to One Access Controller

