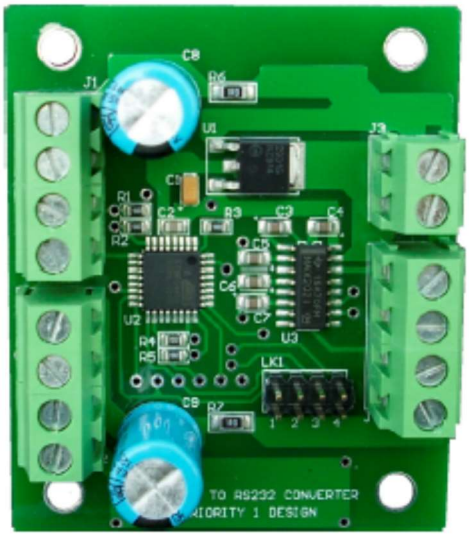
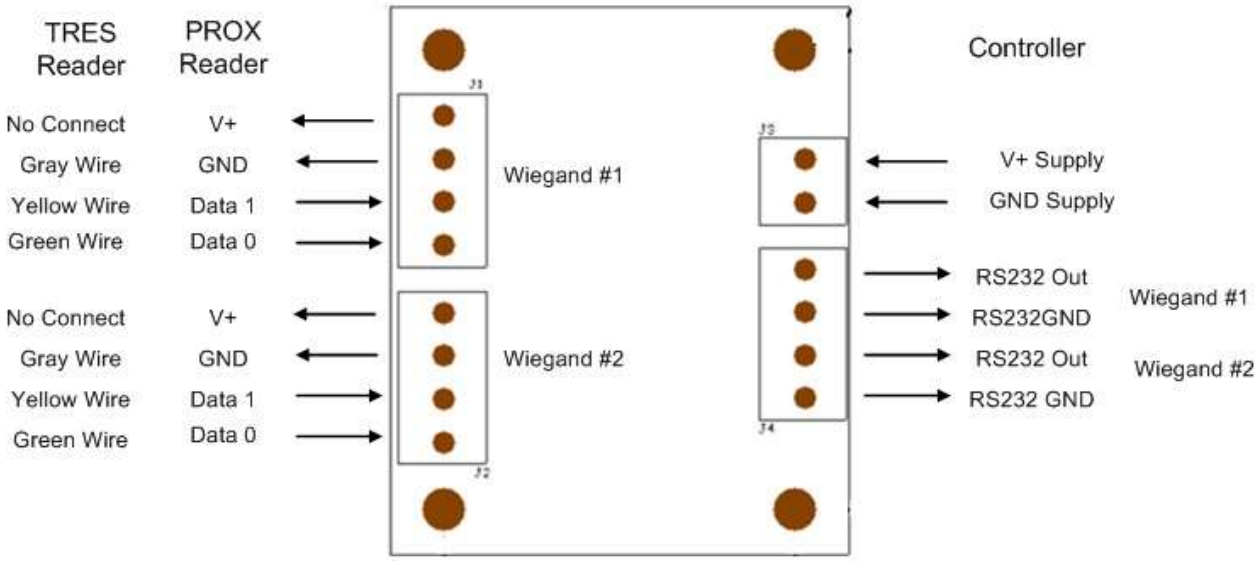
# Dual Wiegand to HID RS232 Converter

Designed for embedding into products manufactured by third-parties, this Wiegand to HID RS232 converter is designed with 2 ports for taking up to 2 Wiegand sources using Wiegand 26, format and converting it to a HID RS232 data stream at 9600 Baud.



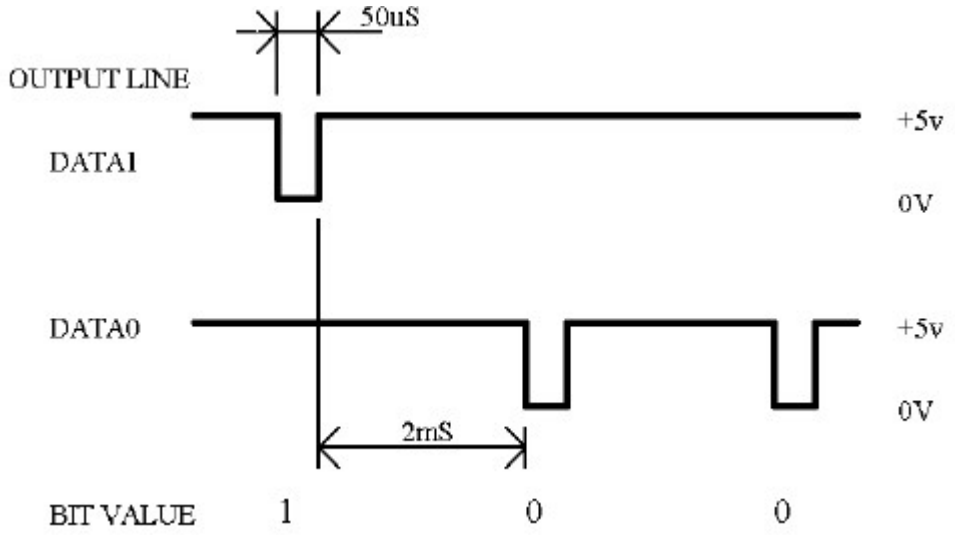
- **Input connectors for 2 separate Wiegand streams.**
- **Two RS232 output ports.**
- **DC operation from 6vDC thru 24vDC**
- **Wiegand 26 bit format**
- **Outputs hexadecimal ASCII characters at 9600 Baud**
- **Small unit size of 53mm x 63mm (2.1” x 2.5”)**
- **4 mounting holes**

# Connector Description



# Wiegand Input Format Description

Wiegand protocol provides 1 line for data transfer. A pulsed transition on the DATA1 line indicates a logic 1 bit, while a pulsed transition on the DATA0 line indicates a logic 0 bit. In their idle state both lines are held high. During data transfer the appropriate logic line will pulse low for 50uS followed by a period of 2ms where both lines are held high. In this fashion each bit is transmitted in sequence until all bits are sent. The end of the transmission is signaled by both lines being held high for more than 50mS. The following figure shows an example of the timing sequence for Wiegand protocol.




## Wiegand 26 input format description:

Wiegand 26 protocol is defined as a stream of 26 bits, consisting of 1 Even parity bit, 24 data bits, and 1 Odd parity bit.

| Bit | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Note | P | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | P |
| | P | E | E | E | E | E | E | E | E | E | E | E | E | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | O | O | O | O | O | O | O | O | O | O | O | O | P |

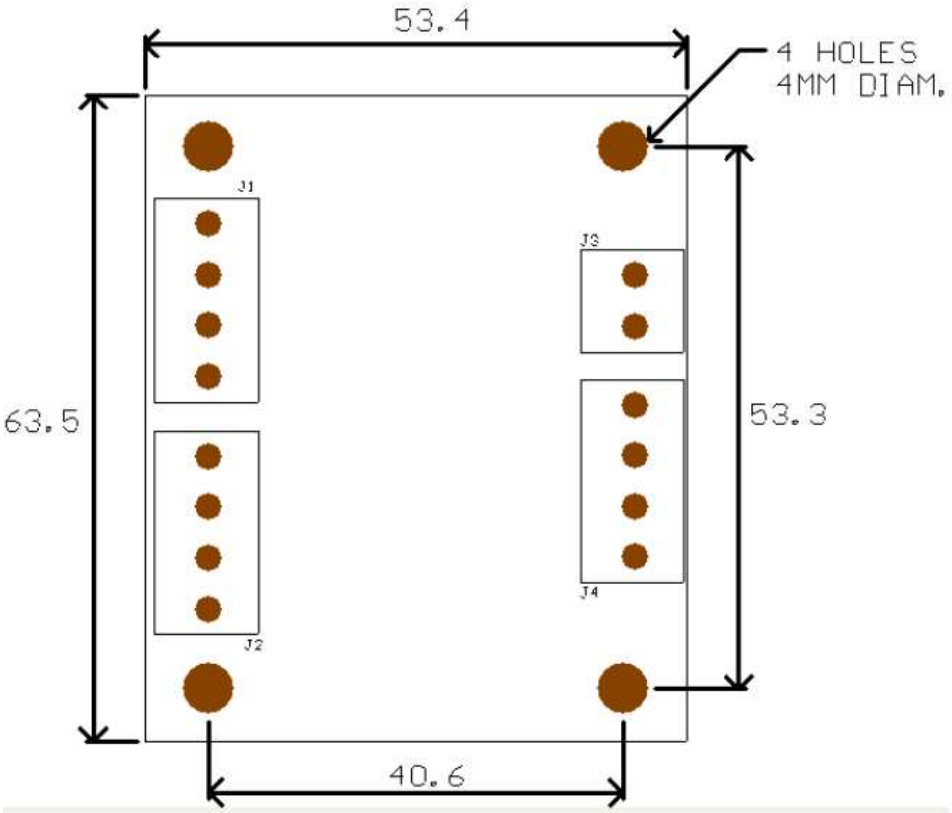
**Note:**

E: Even 0: odd P: parity bit D: DATA

The Converter will read a signal presented in Wiegand 26 format and after checking for parity and bit length will convert the data stream to a serial RS232 output on the corresponding output connector. As only 24 bits of the 26 bit stream is data the string is converted to 6 ASCII coded characters representing 24bits in hexadecimal coding.
The format for this is:

XXYYZZ<crn> where XX are the hexadecimal representation of bits 1-8
YY are the hexadecimal representation of bits 9-16
ZZ are the hexadecimal representation of bits 17-24
<crn> is a carriage return character $0D

# Dimensions




All dimensions in mm.