# Single Output Wiegand Buffer

Designed for embedding into products manufactured by third-parties, this Wiegand to Wiegand Buffer is designed with 2 ports for taking a Wiegand source using Wiegand 26 bit, buffering the data, then output such data for either user defined delays of 5 seconds, 15 second, 30 seconds, or 45 seconds. The data is read from the receiving reader then outputted thru the output port; the data can be read many more times but not outputted again for the user selected delay.

- **Input connector for a Wiegand data stream**
- **Output for a Wiegand data stream**
- **DC operation from 6vDC thru 24vDC**
- **Buffer delay LK1 jumper selectable:**
  1. **5 seconds**
  2. **15 seconds**
  3. **30 seconds**
  4. **45 seconds**
- **Small unit size of 53mm x 63mm (2.1" x 2.5")**
- **4 mounting holes**
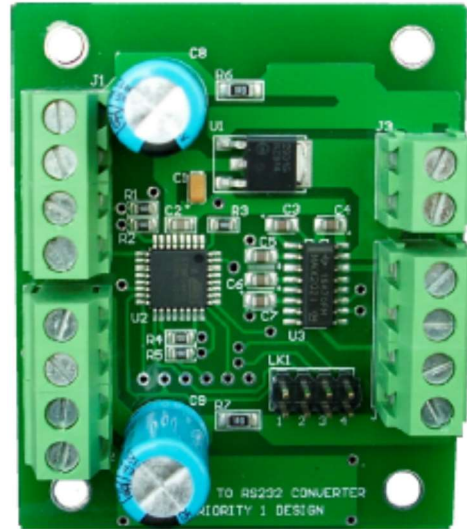
Connector Description
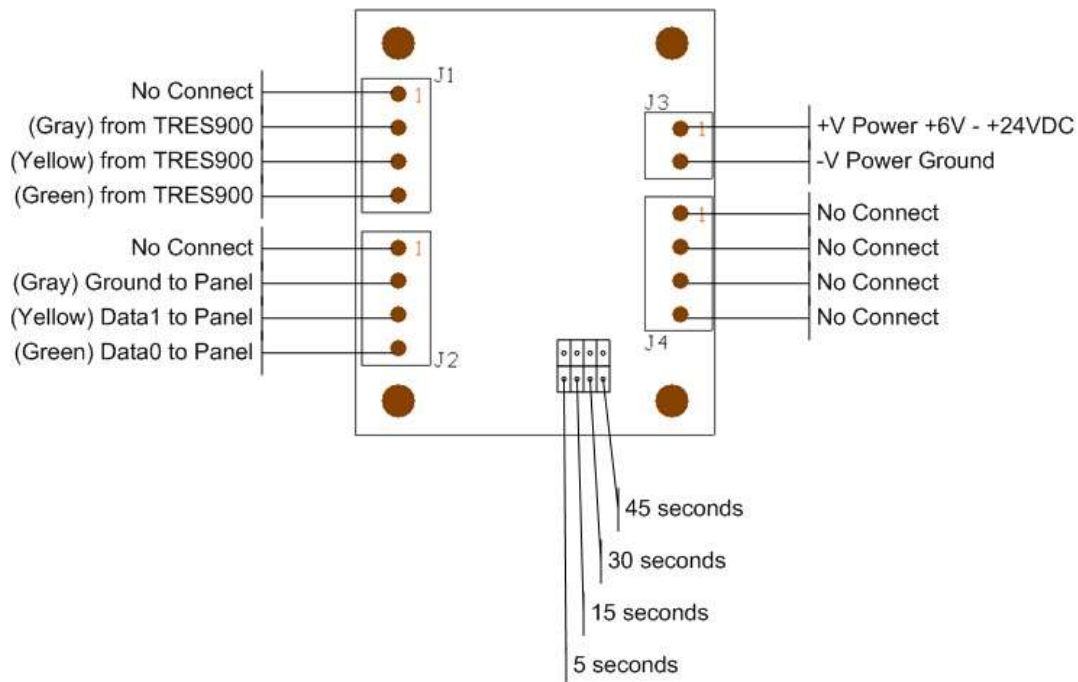
Wiegand Input Format Description

Wiegand protocol provides 1 line for data transfer. A pulsed transition on the DATA1 line indicates 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.
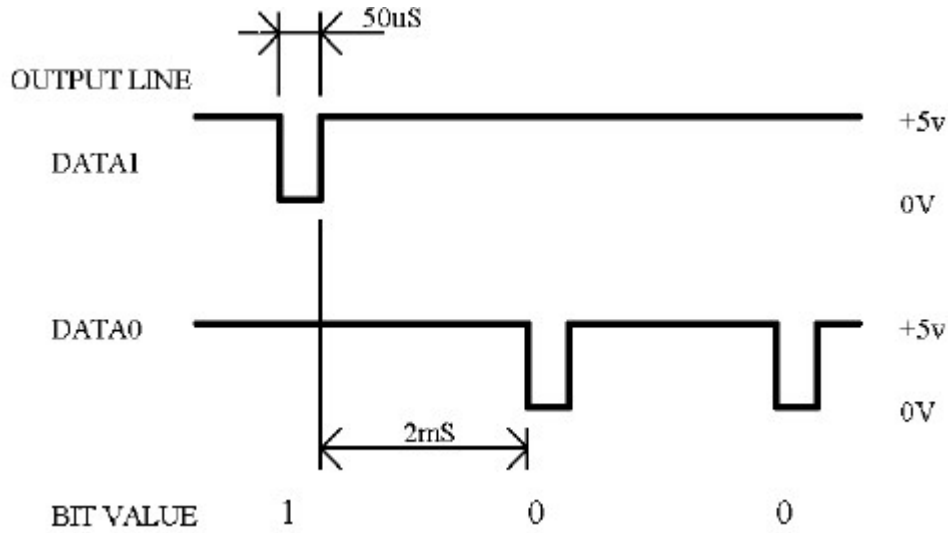
Wiegand 26 input format description:

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 buffer will read a signal presented in Wiegand 26 format and after checking for parity and bit length, it will output such data to the corresponding output connector, buffer the data, set the timer, then wait for another read.

Protocol Selection

The Protocol is selected via the option link pad LK1. Table 1 describes the available settings.

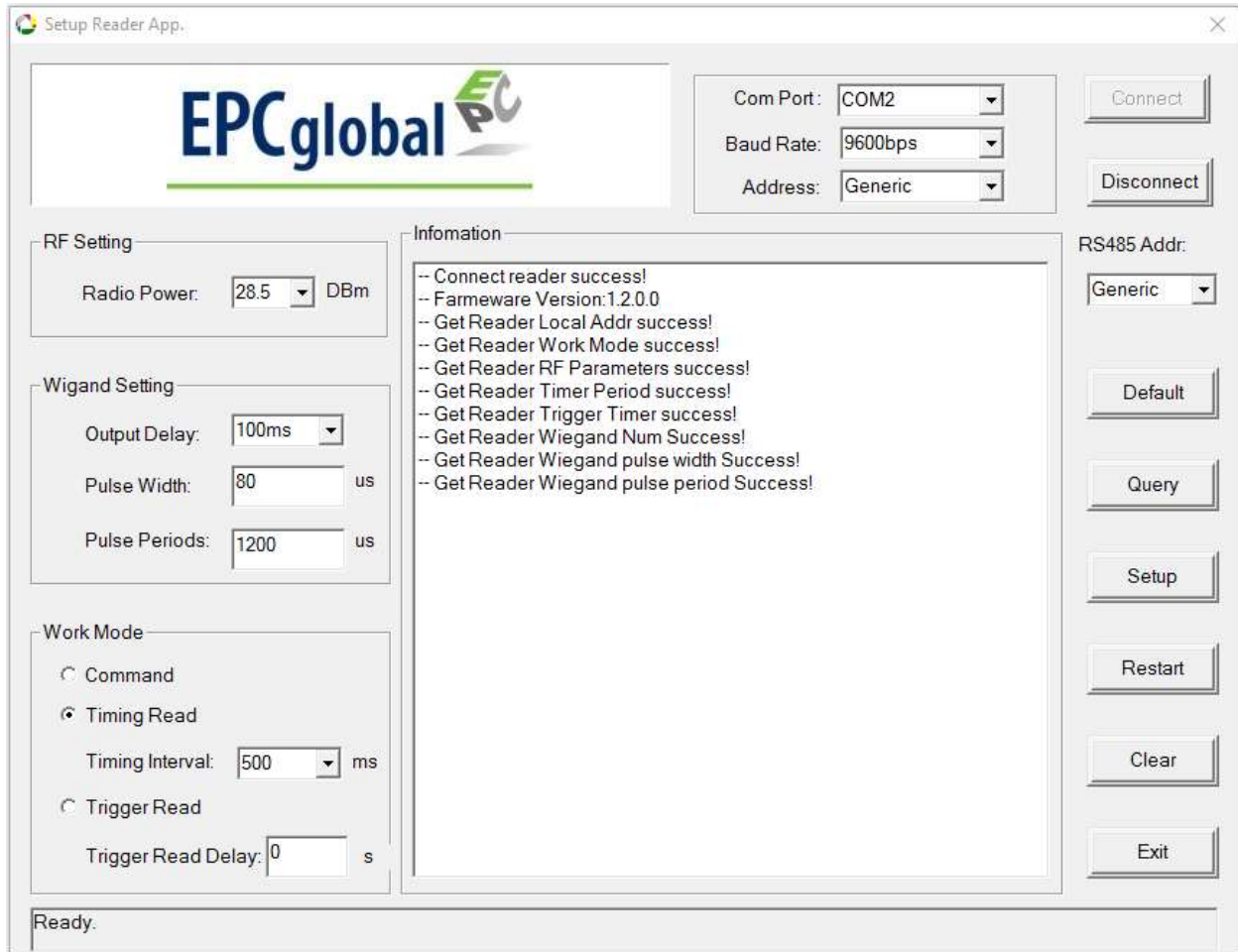| SW1	SW2	SW3	SW4	Protocol
On	Off	Off	Off	5 seconds
Off	On	Off	Off	15 seconds
Off	Off	On	Off	30 seconds
Off	Off	Off	On	45 seconds

Dimensions
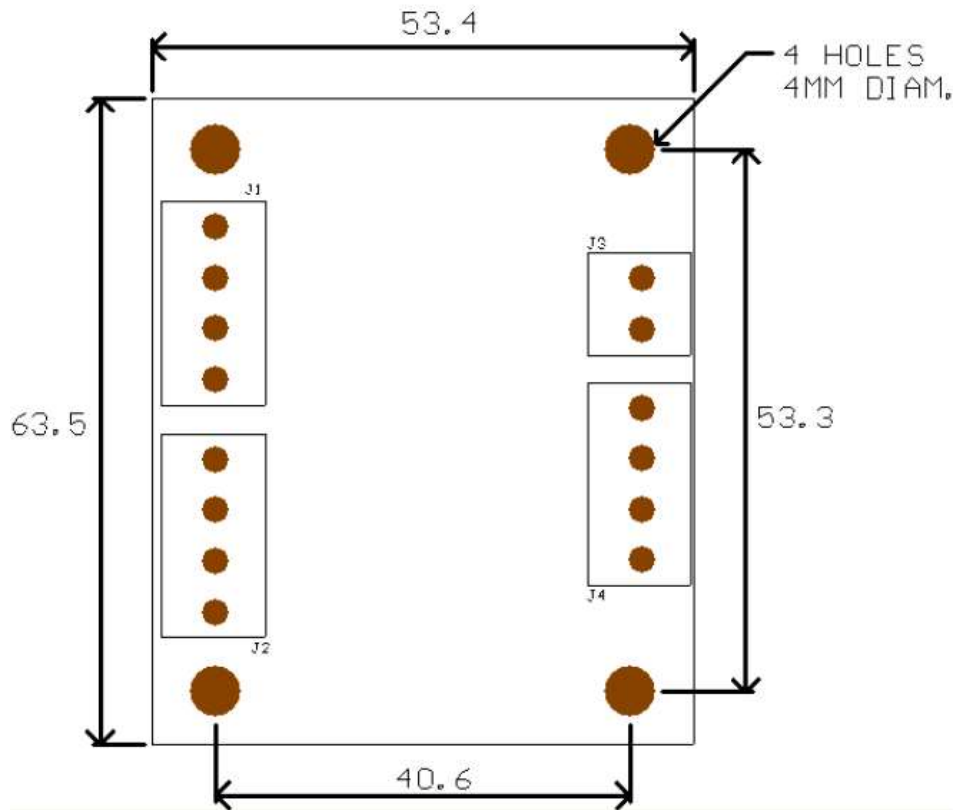
All dimensions in mm.

TRES900 Reader Setup

The TRES900 reader should be setup to the following parameters for best results, use the SETUP.EXE program on the READER CD:

The Radio Power can be anything you want, but the Wiegand settings should be as pictured above.