Wiegand to RS-485 Converter

Overview

Interfaces equipment like

- Electronic Access Control Systems,
- Security Systems,
- Contactless Card Readers,
- Keypads,
- Biometric Readers,
- and RFID terminals

with

- Remote Terminal Units,
- PLCs,
- PCs,
- or SCADA systems.

Supports Modbus RTU and serial ASCII output of Wiegand card number.

Application include:

- Electronic Signatures (FDA regulates processes)
- Time & Attendance (machine or process access)
- Equipment Security (control rooms, data centers)

Specifications

Supported Formats:
- Wiegand 26
- Wiegand 34

Selectable Modes:
- **ASCII Mode**: Output of card ID as Serial string, terminated by <CR><LF>. Point-to-Point only.
- **Modbus RTU**: Number of read Wiegand bits, Card ID and Modbus error counter are accessible as Holding Registers. Multi-drop support.

Baud Rates:
- 4800
- 9600
- 19200
- 38400

Data Formats:
- 8 data bits, no parity, 2 stop bits
- 8 data bits, even parity, 1 stop bit
- 8 data bits, odd parity, 1 stop bit
- 8 data bits, no parity, 1 stop bit

Inputs (removable terminal blocks):
- Supply Voltage: 16VDC - 36VDC, 0.5A - 3A (up to 3A when reader is powered by module)
- Wiegand Signal: D0, D1, GND

Outputs (removable terminal blocks):
- 12VDC, 2.5A Reader Power
- RS-485 serial port

Indicators
- Power LED, briefly dims when valid Wiegand data was received and processed.

Installation
- DIN Rail
Wiegand to RS-485 Converter

Dimensions

Connections

DIP Switch Settings

<table>
<thead>
<tr>
<th>Baud Rate</th>
<th>Data Format</th>
<th>Device ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>4800</td>
<td>8N2</td>
<td>ASCII Mode (255)</td>
</tr>
<tr>
<td>9600</td>
<td>8E1</td>
<td>Modbus RTU Mode</td>
</tr>
<tr>
<td>19200</td>
<td>8O1</td>
<td>Modbus ID = 1</td>
</tr>
<tr>
<td>38400</td>
<td>8N1</td>
<td>Modbus ID = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Modbus ID = 3</td>
</tr>
</tbody>
</table>

Note: DIP switch settings are read on power-up. Valid Modbus Device IDs: 1 - 247.

Modbus Holding Registers

<table>
<thead>
<tr>
<th>Register</th>
<th>Description</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (40001)</td>
<td>Number of read Wiegand Bits</td>
<td>Read/Write</td>
</tr>
<tr>
<td>1 (40002)</td>
<td>HighWord of Card ID</td>
<td>Read/Write</td>
</tr>
<tr>
<td>2 (40003)</td>
<td>LowWord of Card ID</td>
<td>Read/Write</td>
</tr>
<tr>
<td>3 (40004)</td>
<td>Modbus Error Counter</td>
<td>Read only</td>
</tr>
</tbody>
</table>

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