

USB to RS485/422 Mini Converter  
Part no. MWE820A

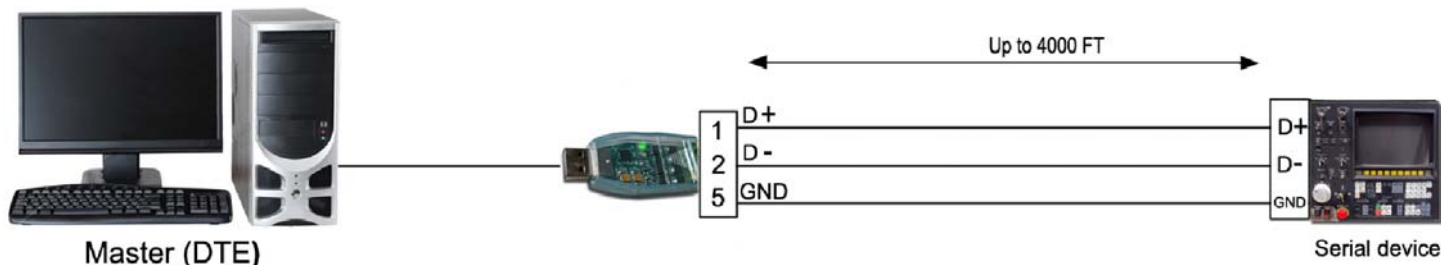


This surge and static protected USB to RS-485 / RS-422 converter is powered from the USB port so there is no need for an external power supply. It is designed around the high performance and very reliable CP2102 chip from [Silicon Labs](#), so it is compatible with all versions of Windows, Mac and Linux.

This particular USB to RS-485 / USB to RS-422 adapter is suitable for most applications, including industrial, commercial and any general office computer device. It is a bi-directional, (meaning it communicates in both directions), reliable and cost-effective converter that easily lets you connect any RS-485 or RS-422 device directly to your computer's USB port, efficiently converting USB signals to half-duplex RS-485 or full-duplex RS-422 and vice versa.

The RS-485 / RS-422 end is a standard 4-screw terminal header for easy connection of single wires. Automatic send data control is enabled by default so no external flow or handshake control is needed.

Application example: Extending communication distance with RS485



| Screw Terminal | RS485 | RS422 |
|----------------|-------|-------|
| 1              | D+    | TX+   |
| 2              | D-    | TX-   |
| 3              |       | RX+   |
| 4              |       | RX-   |
| 5              | GND   | GND   |

**Please download drivers for this product at:**

**[www.USconverters.com](http://www.USconverters.com)**

To access technical support, please visit the U.S. Converters website at: [www.USconverters.com](http://www.USconverters.com)  
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Feel free to contact our technical support team at [mail@usconverters.com](mailto:mail@usconverters.com) with any issues.

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| SPECIFICATIONS                 |                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part number                    | MWE820A                                                                                                                                                                                                                                                                                                                                    |
| Operating system               | <ul style="list-style-type: none"> <li>• Windows 10, Windows 8.1 / 8 (32/64-bit), Windows 7 (32/64-bit), Vista (32/64-bit), XP 32/64, Server 2003, 2000, ME, 98Se (all WHQL compliant)</li> <li>• Linux 2.6.x, 3.x.x</li> <li>• Mac OS X 10.4, 10.5, 10.6, 10.7 and 10.8.</li> <li>• Windows CE 5.0, 6.0</li> <li>• Android 4.2</li> </ul> |
| Processor                      | Silicon Labs CP2102                                                                                                                                                                                                                                                                                                                        |
| RS485 output power             | 4.7VDC (between D+ and GND)                                                                                                                                                                                                                                                                                                                |
| RS485 / RS422 Interface        | Screw terminal block                                                                                                                                                                                                                                                                                                                       |
| Fail-safe bias resistors       | Yes                                                                                                                                                                                                                                                                                                                                        |
| Signals                        | RS485, 2-wire half duplex: D+, D-, GND<br>RS422, 4-wire full duplex: TX+, TX-, RX+, RX-, GND                                                                                                                                                                                                                                               |
| Compatible with                | Modbus RTU/ASCII, BACnet                                                                                                                                                                                                                                                                                                                   |
| Bias resistors                 | Yes                                                                                                                                                                                                                                                                                                                                        |
| USB interface                  | Standard type A male                                                                                                                                                                                                                                                                                                                       |
| Indication LEDs                | Power, Send and Receive                                                                                                                                                                                                                                                                                                                    |
| Baud rate                      | 300 to 921600bps                                                                                                                                                                                                                                                                                                                           |
| Parity                         | None, Odd, Even, Mark, Space                                                                                                                                                                                                                                                                                                               |
| Data Bits                      | 5, 6, 7, 8                                                                                                                                                                                                                                                                                                                                 |
| Stop Bits                      | 1, 1.5, 2                                                                                                                                                                                                                                                                                                                                  |
| TX / RX buffer size            | 640 byte transmit buffer, 576 byte receive buffer                                                                                                                                                                                                                                                                                          |
| Flow Control                   | Hardware or Xon / Xoff                                                                                                                                                                                                                                                                                                                     |
| COM port accessible by         | Included virtual COM port drivers                                                                                                                                                                                                                                                                                                          |
| Special features               | <ul style="list-style-type: none"> <li>- Event character support</li> <li>- Line break transmission</li> <li>- Automatic Send Control</li> </ul>                                                                                                                                                                                           |
| Electrostatic (ESD) protection | 15KV/ 600W/ms high voltage protection                                                                                                                                                                                                                                                                                                      |
| Current draw                   | Static: less than 80mA. Dynamic average: less than 150mA                                                                                                                                                                                                                                                                                   |
| Dimensions                     | 65 x 22 x 12mm                                                                                                                                                                                                                                                                                                                             |
| Interface compliance           | USB1.1, 2.0, 3.0, EIA/TIA RS-232                                                                                                                                                                                                                                                                                                           |
| Regulatory compliance          | FCC, CE and RoHS                                                                                                                                                                                                                                                                                                                           |
| Working temp                   | -4°F to 158°F (-20°C to 70°C)                                                                                                                                                                                                                                                                                                              |
| ECCN                           | 4A994.a                                                                                                                                                                                                                                                                                                                                    |
| Schedule B                     | 8471.80.1000                                                                                                                                                                                                                                                                                                                               |
| HTS                            | 8517.18.0050                                                                                                                                                                                                                                                                                                                               |