USB to RS-232
Miniature Converters
Models 232USB9M, 232USB9M-LS

Universal Serial Bus (USB) has become the connectivity workhorse of today’s PCs, replacing the familiar serial ports. However, many commercial and industrial devices still use the RS-232 interface.

To connect these devices to modern PCs, you need a simple and reliable conversion solution. Model 232USB9Mx offers this solution in a compact, space saving, USB port-powered package.

Simply install the drivers supplied on CD ROM and plug the converter into an available USB port on your computer or USB hub. The device will show up as an additional COM port in the Windows Device Manager which is fully compatible with your Windows applications. Locked serial number version is also available. A USB cable is included.

PRODUCT FEATURES
• Connect RS-232 devices to your USB port
• RS-232 data rates up to 921.6 Kbps
• In-line installation
• FCC, CE approved
• USB port powered
• (1) USB cable included
• USB 2.0 (12 Mbps) compatible
• Perfect for field service applications
• Locked serial number option (Model# 232USB9M-LS)

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>232USB9M</td>
<td>USB to RS-232 Miniature Converter</td>
</tr>
<tr>
<td>232USB9M-LS</td>
<td>USB to RS-232 Miniature Converter (Locked Serial Number)</td>
</tr>
</tbody>
</table>

ACCESSORIES
USBAMBM-3F - USB Cable, 0.91 m (3 ft), one cable included with converter
9PAMF6 - Serial Cable – 1.8 m (6 ft), DB9 male to DB9 female

Locked Serial Numbers Explained
We configure our single-port USB to serial converters in two ways. In standard format, each product has a unique serial number. “Locked serial” format uses the same serial number that is associated with a model type.

If your converter will always be used with the same computer, the standard serialized model is all you need. If the converter is shared among several computers, like field service laptops, the locked serial number model lets you plug and play without having to worry about matching the two.

<table>
<thead>
<tr>
<th>Description</th>
<th>Serialized</th>
<th>Locked Serial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every unit is assigned a unique COM port</td>
<td>✔</td>
<td>-</td>
</tr>
<tr>
<td>Same type model numbers shares the same COM port</td>
<td>-</td>
<td>✔</td>
</tr>
<tr>
<td>Ideal applications</td>
<td>Fixed Locations</td>
<td>Field Service</td>
</tr>
</tbody>
</table>

When ordering Locked Serial Number versions, add an “-LS” to the item number. Serialized and Lock Serial Number versions sell for the same price.

All product specifications are subject to change without notice.
232USB9M-232USB9M-LS_1418ds
USB to RS-232
Miniature Converters
Models 232USB9M, 232USB9M-LS

SPECIFICATIONS

SERIAL TECHNOLOGY
RS-232
Connector DB9 Male (DTE)
Data Rate Up to 921.6 Kbps

USB TECHNOLOGY
Connector USB Type B Female
Standard 2.0 (Backward Compatible)
Data Rate 12 Mbps

POWER
Source USB Port
Input Voltage 5 VDC
Consumption ~ 0.5 W (Low power device, draws less than 100 mA)

SOFTWARE
Driver CD Windows 98, ME, 2000, XP, Vista, 7 (32/64 bit), 8 (32/64 bit), 10 (32/64 bit)

MECHANICAL
Dimensions 5.8 x 3.2 x 1.6 cm (2.3 x 1.3 x 0.6 in)
Enclosure In-line mount, plastic
Weight 104.3 g (0.23 lb) with included USB cable

ENVIRONMENTAL
Operating Temperature 0 to 70 °C (32 to 158 °F)
Storage Temperature -40 to 85 °C (-40 to 185 °F)
Operating Humidity 0 to 95% (non-condensing)
MTBF 1946086 hours
MTBF Method MIL 217F Parts Count Reliability Prediction

APPROVALS, DIRECTIVES, STANDARDS
Approvals FCC, CE
2014/30/EU Electromagnetic Compatibility Directive
2011/65/EU Reduction of Hazardous Substances Directive (RoHS)
2012/19/EU Waste Electrical and Electronic Equipment Directive (WEEE)
EN 55032 Class B Electromagnetic Compatibility of Multimedia Equipment - Emissions Requirements
EN 61000-6-1 Generic Immunity Standard for Residential, Commercial and Light-industrial Environments
EN 61000-4-2 ESD Immunity
EN 61000-4-3 Radiated Immunity
EN 61000-4-4 EFT/Burst Immunity
EN 61000-4-6 RF Conducted Immunity

PINOUTS: RS-232 DB9 MALE DTE CONNECTOR

<table>
<thead>
<tr>
<th>PIN</th>
<th>DIRECTION</th>
<th>SIGNAL NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Input</td>
<td>DCD (Receive Line Signal Detector)</td>
</tr>
<tr>
<td>2</td>
<td>Input</td>
<td>RD (Receive Data)</td>
</tr>
<tr>
<td>3</td>
<td>Output</td>
<td>TD (Transmit Data)</td>
</tr>
<tr>
<td>4</td>
<td>Output</td>
<td>DTR (DTE Ready)</td>
</tr>
<tr>
<td>5</td>
<td>N/A</td>
<td>SG (Signal Ground)</td>
</tr>
<tr>
<td>6</td>
<td>Input</td>
<td>DSR (DCE Ready)</td>
</tr>
<tr>
<td>7</td>
<td>Output</td>
<td>RTS (Request to Send)</td>
</tr>
<tr>
<td>8</td>
<td>Input</td>
<td>CTS (Clear to Send)</td>
</tr>
<tr>
<td>9</td>
<td>Input</td>
<td>RI (Ring Indicator)</td>
</tr>
</tbody>
</table>

MECHANICAL DIAGRAM