## **B&B ELECTRONICS USB to RS-232 Converter With Isolation** US09ML2



#### **PRODUCT FEATURES**

- 2 kV Isolation
- ESD Protection 4 kV Contact, 8 kV Air
- Compact In-Line Case
- USB 2.0 Full Speed Compatible (12 Mbps)
- RS-232 Data Rates up to 460.8 Kbps
- USB Bus Powered

This compact, isolated USB to RS-232 converter allows you to add an RS-232 port to your USB only PC. Built to rugged specifications with two kilovolts of isolation, it will protect your PC from hazardous ground loops. The compact size makes it perfect for field service use but it is also great for instrumentation and laboratory applications. Full speed (12 Mbps) USB 2.0 support allows connectivity with modern computer technology.

The RS-232 port is a DB9 Male connector wired as a DTE with full hardware handshake support. It can handle standard RS-232 data rates up to 460.8 Kbps.

Each unit comes with 1 meter USB cable and a driver disk. Drivers support Windows platforms up to Windows 8 in 32 and 64 bit implementations.

#### **ORDERING INFORMATION**

| MODEL NUMBER | DESCRIPTION   |
|--------------|---|
| US09ML2      | USB to Isolated RS-232 Converter  |
| US09ML2-LS   | USB to Isolated RS-232 Converter<br>Locked Serial Number version of USO9ML2 |

## ACCESSORIES

USBAMBM-3F - 3 foot (1M) Type A Male to Type B Male (Gray)

## 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.

| Description                                      | Serialized         | Locked<br>Serial<br>Number |
|--|--------------------|----------------------------|
| Every unit is assigned a unique COM port         | ~                  | -                          |
| Same type model numbers shares the same COM port | -                  | ~                          |
| Ideal applications                               | Fixed<br>Locations | Field<br>Service           |

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

# USB to RS-232 Converter With Isolation



## SPECIFICATIONS

| SERIAL TECHNOLOGY     |   |
|-----------------------|---|
| RS-232                | TD, RD, RTS, CTS, DTR, DSR, DCD, GND  |
| Connector             | DB9 Male  |
| Data Rate             | 460.8 Kbps  |
| Isolation             | 2 kV  |
| USB TECHNOLOGY        |   |
| USB Compatibility     | 1.1 and 2.0 (at full speed)   |
| Speed                 | 12 Mbps (Full)  |
| Connector             | Туре В  |
| Operating System      | Windows 2000, XP (32/64 bit), Vista (32/64 bit),<br>Windows 7 (32/64 bit), 8 (32/64 bit),<br>2003 & 2008 Server (32/64 bit) |
| POWER                 |   |
| Source                | USB Bus Powered   |
| Power Consumption     | Low Power Device (Less than 100 mA)   |
| INDICATORS            |   |
| TD / RD (RS-232)      | Red LED   |
| MECHANICAL            |   |
| Dimensions            | 7.7 x 4.3 x 2.3 cm (3.0 x 1.7 x 0.9 in)   |
| Enclosure             | IP 30, Plastic  |
| Weight                | 6.4 oz (0.18 kg)  |
| MTBF                  | 247,713 hours   |
| MTBF Calc. Method     | MIL 217F Parts Count Reliability  |
| ENVIRONMENTAL         |   |
| Operating Temperature | 0 to 70°C   |
| Storage Temperature   | -40 to 85°C   |
| Operating Humidity    | 0 to 95% Non-condensing   |

| APPROVALS / CERTIFICATIONS |  |  |  |
|----------------------------|--|--|--|
| Emissions                  | EN 55022: 2010 + AC:2011 Class B Emissions |  |  |
| CE                         | EN 61000-6-1:2007                          | Generic Standards for Residential, Commercial<br>and Light-Industrial Environments |  |
|                            | EN 61000-4-2: 2009                         | Electro-Static Discharge (ESD)   |  |
|                            | EN 61000-4-3: 2006                         | +A1 +A2 +IS1 Radiated Field Immunity (RFI)   |  |
|                            | EN 61000-4-4: 2012                         | Electrical Fast Transients-Burst Immunity (EFT                                     |  |
|                            | EN 61000-4-6: 2009                         | Conducted Immunity   |  |
|                            |  |  |  |

### **MECHANICAL DIAGRAM**





