## **USB to RS-485 Miniature Converters**

Models: BB-485USB9F-2W, BB-485USB9F-2W-LS, BB-485USB9F-4W, BB-485USB9F-4W-LS





#### **PRODUCT FEATURES**

- · Connect RS-485 devices to your USB port
- Data rates: 921.6 kbps (RS-485); 12 Mbps (USB)
- Quick, convenient in-line installation
- USB port powered
- USB 2.0 (12 Mbps) compatible
- Small fits easily into laptop bag; perfect for field service applications
- (1) USB cable included
- · Locked Serial Number versions

Universal Serial Bus (USB) has become the connectivity workhorse of today's PCs, replacing the familiar serial port. However, many commercial and industrial devices still use the RS-485 interface. To connect these devices to modern PCs, you need a simple and reliable conversion solution. Models BB-485USB9F-2W-x and BB-485USB9F-4W-x offer this solution in a space saving, USB port powered package.

Simply install the drivers 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. Choose BB-485USB9F-2W-x for RS-485 2-wire applications or the BB-485USB9F-4W-x for RS-485 4-wire applications. A one meter USB cable is included. Locked serial number versions are also available.

### **ORDERING INFORMATION**

MODEL NUMBER	DESCRIPTION
BB-485USB9F-2W	USB to RS-485 2-Wire Converter
BB-485USB9F-4W	USB to RS-485 4-Wire Converter
BB-485USB9F-2W-LS	USB to RS-485 2-Wire Converter (Locked Serial Number)
BB-485USB9F-4W-LS	USB to RS-485 4-Wire Converter (Locked Serial Number)

### **ACCESSORIES -**

BB-USBAMBM-3F – 0.91 m (3 ft) USB Cable, Type A male, to Type B male (one included) BB-USBAMBM-6F – 1.83 m (6 ft) USB Cable, Type A male, to Type B male



## IN THE FIELD

Monitoring Laboratory
Equipment

Industry: Industrial Automation
Product: USB Miniature Converter

## **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 SERIAL NUMBER
Every unit is assigned a unique COM port	<b>V</b>	-
Same type model numbers shares the same COM port	-	~
Ideal applications	Fixed Locations	Field Service

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

All product specifications are subject to change without notice. 485USB9F-2W-x 485USB9F-4W-x 3018ds



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### **SPECIFICATIONS**

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SERIAL TECHNOLOGY					
RS-485 2-Wire	Data A(-), Data B(+), Ground				
RS-485 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), Ground				
Connector	DB9 Female				
Data Rate	Up to 921.6 Kbps				
USB TECHNOLOGY	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 XP, 7 (32/64 bit), 8 (32/64 bit), 8.1 (32/64), 10 (32/64)				
MECHANICAL					
Dimensions	5.8 x 3.2 x 1.6 cm (2.3 x 1.3 x 0.6 in)				
Enclosure	In-line mounted, plastic				
Weight	04.3 g (0.23 lb) with USB cable				
ENVIRONMENTAL	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)				
MEANTIME BEFORE FAILURE (MTBF)					
MTBF 2-Wire	2130833 hours				
MTBF 4-Wire	1869313 hours				
MTBF Method	Parts Count Reliability Prediction				

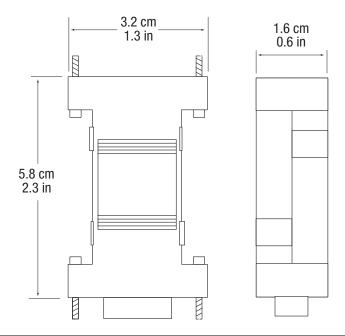
APPROVALS, DIRECTIVES, STANDARDS				
Approvals	FCC, CE			
EU	2014/30/EU	Electromagnetic Compatibility Directive		
	2011/65/EU	Reduction of Hazardous Substanes Directive		
EMC	EN 55022:2010 + AC	Information Technology Equipment - Radio Disturbance Characteristics - Limits and Methods of Measurement		
	EN 61000-6-1	Generic Immunity Standard for Residential, Commercial and Light-Industrial Environments		

### **PINOUT: DB9 FEMALE CONNECTOR**



PIN	485USB9F-2W	485USB9F-4W
1	Not Used	Not Used
2	Data A(-)	RDA(-)
3	Data B(+)	TDB(+)
4	Ground	Ground
5	Not Used	Not Used
6	Ground	Ground
7	Data B(+)	RDB(+)
8	Data A(-)	TDA(-)
9	Not Used	Not Used

## **MECHANICAL DIAGRAM**





# **Mouser Electronics**

**Authorized Distributor** 

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Advantech:

BB-485USB9F-2W