

# Isolated Serial Converter

Model BB-485O9TB

B+B SMARTWORX

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## FEATURES

- Converts RS-232 data signals to RS-422/485
- 1500V optical isolation for data lines and ground
- Data rate: up to 9600 bps
- Inline installation
- 10 to 14 VDC power supply (required, not included, sold separately)
- cULus, FCC, CE

Model BB-485O9TB, isolated converter, converts unbalanced, full-duplex RS-232 signals to balanced full-duplex (4-wire) RS-422/485 or half-duplex (2-wire) RS-485 signals.

The converter provides 1,500 Volts RMS optical isolation for data lines and ground (and connected devices) between the RS-232 and RS-422/485 signals. RS-232 port has a female DB9 connector. RS-422/485 port has a 6-position terminal block.

The RS-232 side of the converter draws power from the handshake lines (DTR, RTS). At least one handshake line must be asserted (raised high) to power the RS-232 side. The RS-422/485 side must be powered by an external 12 VDC power supply (not included, sold separately).

## SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	9600 bps
<b>RS-232</b>	
Connector	DB9 Female (DCE)
Signals	TD, RD, GND
<b>RS-422/485</b>	
Connector	Terminal block
RS-485, 2-Wire	Data A (-), Data B (+), GND
RS-422/485, 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), GND
<b>ISOLATION</b>	
Lines Protected	Data lines
Method	Optical
Rating	1,500 V
<b>POWER</b>	
<i>Note: Requires Two (2) Power Sources</i>	
<b>RS-232</b>	
Source	Port-powered from DTR and RTS handshake lines
<b>RS-422/485</b>	
Connector	Terminal block
Voltage	10-14 VDC
Consumption	0.9 W
Source	External power supply (not included, sold separately)
<b>TERMINAL BLOCK</b>	
Wire Size	26 to 16 AWG
Torque	2.0 lb fin

## ORDERING INFORMATION

MODEL NUMBER	RS-232 CONNECTOR	RS-422/485 CONNECTOR
BB-485O9TB	DB9 Female	Terminal Block

## ACCESSORIES – sold separately

BB-SMI6-12-V-ST - Power Supply, 12 VDC 6 Watt, Stripped and Tinned, International AC Input, International AC Blades

BB-9PAMF6 - 1.8 m (6 ft) RS-232 Serial Cable

BB-MMNM9 - DB9 male to DB9 male Null Modem Adapter

## SPECIFICATIONS - continued

ENCLOSURE	
Material	Plastic
Dimensions	5.5 x 8.3 x 1.7 cm (2.2 x 3.3 x 0.7 in)
Mounting	Inline
<b>ENVIRONMENTAL</b>	
Operating Temperature	0 to +50 °C (+32 to +122 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	0 to 95% non-condensing
<b>MEANTIME BETWEEN FAILURES (MTBF)</b>	
MTBF	272581 hours
MTBF Calculation Method	MIL 217F Parts Count Reliability Prediction
<b>APPROVALS / CERTIFICATIONS</b>	
CE, FCC	
cULus, File Number: E222870	
CE - Directives	2014/30/EU - Electromagnetic Compatibility Directive 2011/65/EU - Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU - Waste Electrical and Electronic Equipment (WEEE)
CE - Standards	EN 55032 (Class B) - Information Technology Equipment - Radio disturbance characteristics - Limits and methods of measurement EN 55024 - Information Technology Equipment - Immunity (light-industrial environments)
EN 61000-6-1	Generic immunity standard for residential, commercial and light-industrial environments

All product specifications are subject to change without notice.  
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