

# Isolated Serial Converter

Model 485OI9TB

B+B SMARTWORX

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## PRODUCT FEATURES

- 1,500 Volts optical isolation
- Converts RS-232 to RS-422/485
- 4-wire, full-duplex RS-485
- 2-wire, half-duplex RS-485

Model 485OI9TB, 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 (sold separately).

## SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	9600 bps
RS-232	
Connector	DB9 Female (DCE)
Signals	TD, RD, GND
RS-422/485	
Connector	Terminal block
RS-485, 2-Wire	Data A (-), Data B (+), GND
RS-422/485, 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), GND
ISOLATION	
Lines Protected	Data lines
Method	Optical
Rating	1,500 V
POWER	
<b>Note: Requires Two (2) Power Sources</b>	
RS-232	
Source	Port-powered from DTR and RTS handshake lines
RS-422/485	
Connector	Terminal block
Voltage	10-14 VDC
Consumption	0.9 W
Source	External
TERMINAL BLOCK	
Wire Size	26 to 16 AWG
Torque	2.0 lb fin

## ORDERING INFORMATION

MODEL NUMBER	RS-232 CONNECTOR	RS-422/485 CONNECTOR
485OI9TB	DB9 Female	Terminal Block

## ACCESSORIES

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

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

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
ENVIRONMENTAL	
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
MTBF	272581 hours
MTBF Calculation Method	MIL 217F Parts Count Reliability Prediction
APPROVALS / CERTIFICATIONS	
CE, FCC	
cULus, File Number: E222870	
2014/30/EU	Electromagnetic Compatibility Directive
2011/65/EU	Reduction of Hazardous Substances Directive (RoHS)
2012/19/EU	Waste Electrical and Electronic Equipment (WEEE)
EN 55032 (Class B)	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
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

All product specifications are subject to change without notice.  
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