

Isolated In-line Serial Converters

Models BB-4WSD90TB, BB-4WSD250TB

B+B SMARTWORX

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BB-4WSD90TB



BB-4WSD250TB

PRODUCT FEATURES

- RS-232 to RS-422 or RS-485 (2 or 4 wire) serial conversion
- 2,000V two-way optical isolation
- 115.2 kbps data rate
- Quick, inline installation
- Modbus compatible
- 10 to 48 VDC external power required (not included, sold separately)
- Removable terminal blocks for RS-422/485
- Automatic Send Data Control - no software drivers required

Models BB-4WSD90TB and BB-4WSD250TB convert RS-232 to RS-422 or RS-485 (2 or 4-wire). 2,000V, two-way optical isolation protects devices from power surges, spikes and ground loops in harsh electrical environments.

These in-line converters support distances up to 1200 meters (4000 ft.) and data rates up to 115.2 kbps. Switchable modes support 2-wire RS-485, 4-wire RS-485, and full-duplex RS-422. Available with female DB9 or DB25 RS-232 inputs.

Removable terminal blocks for RS-422/485 and external power make wiring easy. Accepts external power from 10-48 VDC from an industrial power source or plug in power supply (not included, sold separately).

ORDERING INFORMATION

MODEL NUMBER	RS-232 CONNECTOR	RS-485 CONNECTOR
BB-4WSD90TB	DB9 Female	Removable Terminal Blocks
BB-4WSD250TB	DB25 Female	Removable Terminal Blocks

SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	115.2 kbps maximum
LED Indicators	TD and RD
RS-232 Connector	BB-4WSD90TB: DB9 female BB-4WSD250TB: DB25 female
RS-232 Signals	TD, RD, GND
RS-422/485 Connector	BB-4WSD90TB: Terminal block, removable BB-4WSD250TB: Terminal block, removable
RS-485, 2-wire	Data A(-), Data B(+), GND
RS-422/485, 4-wire	TDA(-), TDB(+), RDA(-), RDB(+), GND
POWER	
Input Required	10-48 VDC Input (power supply required, not included, sold separately)
Current Draw	28 mA at 12 VDC (typical)
MECHANICAL	
Dimensions	BB-4WSD90TB: 9.8 x 4.3 x 2.3 cm (3.9 x 1.7 x 0.9 in) BB-4WSD250TB: 9.8 x 5.5 x 2.3 cm (3.9 x 2.2 x 0.9 in)
MEANTIME BETWEEN FAILURES (MTBF)	
MTBF	179604
MTBF Calculation Method	MIL 217F Parts Count Reliability Prediction
ENVIRONMENTAL	
Operating Temperature	0 to +70 °C (+32 to +158 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
REGULATORY / APPROVALS / CERTIFICATIONS	
FCC, CE	
Directives	2014/30/EC – Electromagnetic Compatibility Directive 2011/65/EU – Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE)
Standards	EN55032 Class B – Electromagnetic Compatibility of Multimedia Equipment - Emission Requirements EN55024 – Information Technology Equipment – Immunity - light industrial environments

ACCESSORIES – sold separately

BB-SMI6-12-V-ST – Power Supply, 12VDC Output, 0.5A Current, 6W, Stripped/Tinned

BB-9PAMF6 – DB9 Male to DB9 Female Cable, 1.8 m (6 ft)

BB-9PAMM6 – DB9 Male to DB9 Male Cable, 1.8 m (6 ft)

BB-232AMF5 – DB25 Male to DB25 Female Cable, 1.8 m (6 ft)

BB-232AMM5 – DB25 Male to DB25 Male Cable, 1.8 m (6 ft)

All product specifications are subject to change without notice.

BB-4WSD90TB & BB-4WSD250TB_4818ds