Isolated In-line
Serial Converters

Models 4WSD9OTB, 4WSD25OTB

B+B SmartWorx

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PRODUCT FEATURES

• Modbus compatible serial conversion
• Removable terminal blocks for RS-422/485
• 2,000V two-way optical isolation
• Automatic Send Data Control - no software drivers necessary

Models 4WSD9OTB and 4WSD25OTB 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 1,200 m (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. The power supply is sold separately.

ACCESSORIES

SMI6-12-V-ST - Power Supply, 12 VDC 6 Watt, 2.5MM Plug, International AC Input, International AC Blades

TBKT4 - 5 position 3.5MM Replacement Terminal Block

9PAMF6 - 6 ft. (1.8 m) DB9 Male to DB9 Female Cable

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

ORDERING INFORMATION

MODEL NUMBER	RS-232 CONNECTOR	RS-485 CONNECTOR
4WSD9OTB	DB9 Female	Removable Terminal Blocks
4WSD25OTB	DB25 Female	Removable Terminal Blocks

SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	115.2 kbps maximum
LED Indicators	TD and RD
RS-232	
Connectors	4WSD9OTB: DB9 female 4WSD25OTB: DB25 female
Signals	TD, RD, GND
RS-422/485	
Connector	4WSD9OTB: Terminal block, removable 4WSD25OTB: 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
Current Draw	28 mA at 12 VDC (typical)
MECHANICAL	
Dimensions, 4WSD9OTB	9.8 x 4.3 x 2.3 cm (3.9 x 1.7 x 0.9 in)
Dimensions, 4WSD25OTB	9.8 x 5.5 x 2.3 cm (3.9 x 2.2 x 0.9 in)
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)
APPROVALS / CERTIFICATIONS - 4WSD9OTB, 4WSD25OTB	
2004/108/EC	Electromagnetic Compatibility Directive
2011/65/EU	Reduction of Hazardous Substances Directive
EN 55022: +AC	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
EN 61000-1-1	Generic Standards for Residential, Commercial and Light-Industrial Environments
EN61000-4-2	ESD Immunity
EN61000-4-3: +A1 +A2	Radiated Immunity
EN61000-4-4	EFT/Burst immunity
EN61000-4-6	RF Conducted Immunity

All product specifications are subject to change without notice.
4WSD9OTB & 4WSD25OTB_2916ds