

# Port Powered RS-232/422 Converters

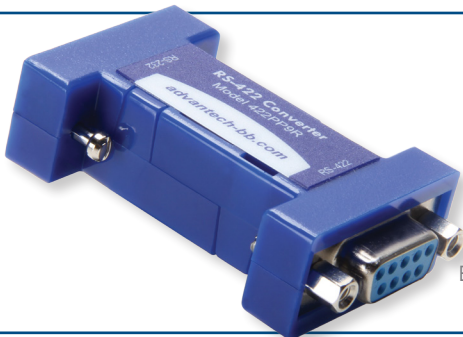
Models BB-422PP9R, BB-422PP9TB

B+B SMARTWORX

Powered by

ADVANTECH

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BB-422PP9R

## PRODUCT FEATURES

- Extend RS-232 data signals up to 1.2 km (4000 ft)
- Change RS-232 TD and RD to balanced RS-422 signals
- Baud rates up to 115.2 kbps
- Quick, inline installation
- Powered from RS-232 handshake lines - no power supply required

These port-powered, two-channel converters change TD and RD RS-232 lines to balanced RS-422 signals extending communication distances up to 1.2 km (4000 ft).

With port-powering, a power supply is not required. Power comes from the DTR and RTS RS-232 handshake control lines. At least one handshake line must be present, in either the positive or negative voltage state. This permits use in applications without worrying about software control of the handshake lines.

If port power is not sufficient, select the BB-422PP9TB which can be powered from an external source. This version also allows you to connect the RS-422 signals via a terminal board instead of a DB9 connector.

Converters are configured to transmit both directions in an RS-232 and RS-422 system. RS-232 pinout connects directly to a computer's COM port or any other DTE device. Connections to the RS-422 side are made through a DB9 for the BB-422PP9R or terminal board for the BB-422PP9TB.

These converters are great for field service or "in-line" cable applications.

## ORDERING INFORMATION

MODEL NUMBER	RS-232 CONNECTOR	RS-422 CONNECTOR	OUTPUT	EXTERNAL POWER OPTION?
BB-422PP9R	DB9 Female	DB9 Female	RS-422	No
BB-422PP9TB	DB9 Female	Terminal Block	RS-422	Yes

## ACCESSORIES - sold separately

BB-SMI6-12-V-ST - 12VDC, 6W power supply, stripped/tinned, international AC input  
(Note: external powering option for BB-422PP9TB only)

BB-9PAMF6 - DB9 male to DB9 female adapter cable, 1.8 m (6 ft.)

## PRODUCT FOCUS:

### Why use an "optional" power supply with port-powered converter Model BB-422PP9TB?

Simply put, all RS-232 ports are not created equal. Many laptop PCs, for example, deliberately reduce power to the RS-232 port to save the battery. And, if you are working at the distance limits of RS-422 or 485, you might need an extra boost. For the majority of applications though, Model BB-422PP9TB's port powering is sufficient to accomplish the task.

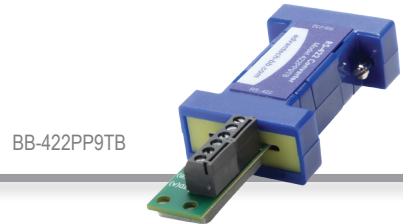


All product specifications are subject to change without notice.

BB-422PP9R, BB-422PP9TB\_3418ds

# Port Powered RS-232/422 Converters

Models BB-422PP9R, BB-422PP9TB



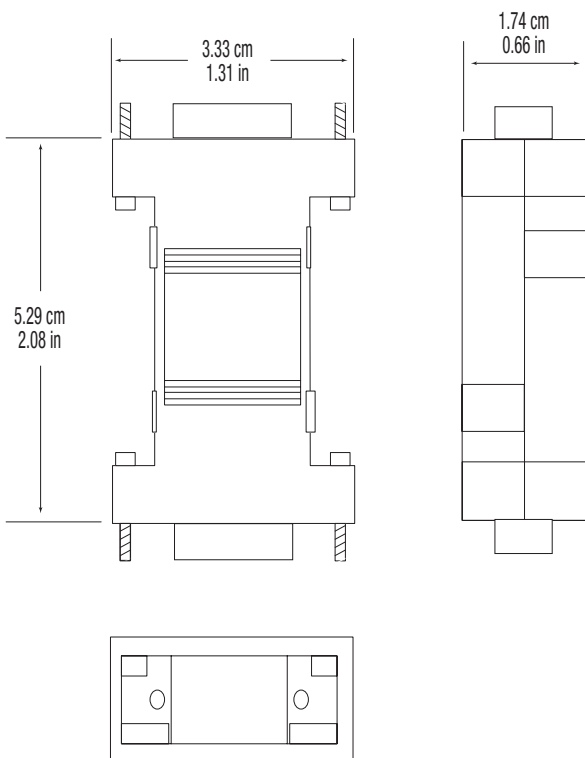
BB-422PP9TB

## SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	115.2 kbps maximum
<b>RS-232</b>	
Connector	BB-422PP9R: DB9 female BB-422PP9TB: DB9 female
Signals	
<b>RS-422</b>	
Connector	BB-422PP9R: DB9 female BB-422PP9TB: Terminal block
Signals	
Operation	RS-422, 4-wire
Biasing Resistors	4.7k Ohms
Termination	None
<b>POWER</b>	
Source	Port-powered from RS-232 handshake lines. Optional, external 12-16 VDC power supply (BB-422PP9TB only).

MECHANICAL	
Dimensions	BB-422PP9R: 6.1 x 3.3 x 1.7 cm (2.4 x 1.3 x 0.66 in)
Dimensions	BB-422PP9TB: 8.9 x 3.3 x 1.7 cm (3.5 x 1.3 x 0.7 in)
Enclosure	Plastic, In-line
Weight	45.3 gm (0.10 lb)
MEANTIME BEFORE FAILURE (MTBF)	
MTBF	BB-422PP9R: 2094328 BB-422PP9TB: 849670
MTBF Calc. 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)
Operating Humidity	0-95%, non-condensing
APPROVALS, DIRECTIVE, STANDARDS	
FCC, CE	
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 A – Electromagnetic Compatibility of Multimedia Equipment – Emission requirements EN 55024 – Information Technology Equipment – Immunity Characteristics – Limits and methods of measurement EN 61000-6-4 + A1 – Generic Emission Standard for Industrial Environments (Class A) EN 61000-6-2 – Generic Immunity Standard for Industrial Environments

## MECHANICAL DIAGRAM – BB-422PP9R



## MECHANICAL DIAGRAM – BB-422PP9TB

