

BB-9POP4

RS-232 4-Channel Optical Isolator



Features

- Protects RS-232 equipment, up to 4 channels
- 2.5kV isolation
- 15kV ESD protection
- Data rate: 230.4 kbps
- Quick in-line installation
- Ideal for laptops, lower power serial ports
- Power supply required, sold separately

Introduction

Model BB-9POP4 isolates and protects RS-232 equipment from lightning surges, accidental high voltage shorts and ground loops. RS-232 data signals TD, RD, RTS, and CTS support up to 230.4 kbps. Isolation circuits are 2.5 kV rated and protects valuable equipment while maintaining maximum uptime.

The isolator uses DB9 male and DB9 female connectors. The female connector is wired as a DCE and should be connected to a DTE port. The male connector is a DTE and should be connected to a DCE port. If you are connecting a DTE to a DTE or a DCE to a DCE, you will need a null modem adapter.

Each side of the isolator receives power from a single 12 Vdc power supply to maintain isolation. This powering configuration allows the device to be used in a system with only one power supply, regardless of the power provided by the RS-232 ports.

NOTE: A recommended, tested and certified power supply is available from Advantech and sold separately. (Note: using any other power supply may bypass or degrade the isolation barrier.)

Specifications

Serial Technology	
RS-232	
Data Rate	230.4 kbps, max.
Connectors	DB9 female (DCE) DB9 male (DTE)
Signals	TD, RD, RTS, CTS, GND
Isolation	2.5 kV
ESD	15 kV air discharge, 8 kV contact
Power	
Source	External power supply required (sold separately)
Connector	2.5 mm jack
Input Voltage	12 Vdc
Consumption	731 mW
Mechanical	
Dimensions	10.4 x 4.3 x 2.0 cm (4.1 x 1.7 x 0.86 in)
Enclosure	IP30, plastic
Mounting	In-line installation
Weight	54.4 g (0.12 lb)

Ordering Information

Model No.	Description
BB-9POP4	RS-232 4-Channel Optical Isolator

Accessories – Sold Separately

BB-SMI6B-12V-P230C1 – Power supply, 12 VDC, 6 W, 2.5mm plug, International AC input, International AC blades

BB-9PAMF6 – Serial cable, DB9M / DB9F, 1.8 m (6 ft)

BB-232NM9MF10 – Null modem cable, DB9M / DB9F, 3.1 m (10 ft)

BB-232NM9MF6 – Null modem cable, DB9M / DB9F, 1.8 m (6 ft)

Environmental	
Operating Temperature	0 to +70 °C (+32 to +158 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	0 to 95%, non-condensing
Mean Time Between Failures (MTBF)	
MTBF	262084 hours
Calculation Method	MIL217F Parts Count Reliability Prediction
Regulatory – Approvals / Standards / Directives	
Approvals	FCC, CE
CE - Directives	2014/30/EU – Electromagnetic Compatibility Directive (ECD) 2011/65/EU – amended by (EU) 2015/863 Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE)
CE - Standards	EMC: EN 55032:2015 Class B – Electromagnetic Compatibility of Multimedia Equipment – Emission Requirements EN 55024:2010 Information Technology Equipment – Immunity Characteristics – Limits and Methods of Measurement
Standards - other	EN 61000-6-1 - Generic Immunity Standard for Residential, Commercial and Light-industrial Environments