

RS-232 Optical Isolator - 4kV Isolation, Port Power

Model BB-232SPH14

B+B SMARTWORX

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FEATURES

- Isolates and protects RS-232 equipment
- 4000V, 2-way optical isolation
- Data rate: up to 115.2 kbps
- Quick, convenient, inline installation
- Port-powering or optional external 12VDC power supply (not included, sold separately)

Model BB-232SPH14 isolates and protects RS-232 equipment from lightning surges, accidental high voltage shorts, and ground loops. The isolator supports RS-232 data signals up to 115.2 kbps as well as RTS and CTS handshake lines. Model BB-232SPH14 provides 4000 Volts isolation between sides — twice the rating of most isolators. DTE device connections are made through a DB-25 female. DCE device connections are made through a DB-25 male.

The two sides of the isolator are powered independently to maintain isolation. Both sides can draw power from the RS-232 data and handshake lines, eliminating external powering requirements in nearly all systems.

If the isolator is to be used with low power ports or when no handshake lines are available, external power can be supplied to either side or both (power supply not included, sold separately). This versatile powering configuration minimizes the number of supplies required by the overall system.

SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	115.2 kbps maximum
RS-232	
Connector	DB25 female (DTE)
Connector	DB25 male (DCE)
Signals	TD, RD, RTS, CTS
Transmission Mode	Asynchronous, half-duplex or full-duplex, point-to-point
POWER	
Source	Port-powered from RS-232 data and handshake lines
Optional External Source	12 VDC
External Connections	2.5mm power jacks (tip positive) or DB25 connectors pins 11 (+) and 12 (-)
ISOLATION	
Volts/Duration	4,000 Volts RMS isolation for 1 minute (may be limited by external supply)
MECHANICAL	
Dimensions	10.4 x 5.8 x 2.4 cm (4.1 x 2.3 x 0.95 in)
Minimum Air Clearance between DTE & DCE Sides:	5 mm (0.197 in)
Minimum Creepage Distance between DTE & DCE Sides:	8 mm (0.315 in)

ORDERING INFORMATION

MODEL NUMBER	CHANNELS PROTECTED	DTE CONNECTOR	DCE CONNECTOR	ISOLATION
BB-232SPH14	4	DB25 Female	DB25 Male	4,000 V

ACCESSORIES - sold separately

BB-SMI6-12V-P230C1 - Power Supply, 12 VDC 6 Watt, 2.5mm plug, international AC input, international AC blades

BB-232AMF5 - DB25 male to DB25 female, 1.8 m (6 ft)

SPECIFICATIONS - continued

ENVIRONMENTAL	
Operating Temperature	0 to +70 °C (+32 to +158 °F)
Storage Temperature	-55 to +125 °C (-67 to +257 °F)
Operating Humidity	10 to 90%, non-condensing
MEANTIME BETWEEN FAILURES (MTFB)	
MTBF	351896
MTBF Calc. Method	Parts Count Reliability Prediction
APPROVALS / CERTIFICATIONS	
FCC Part 15, CISPR, EN55032	
CE	
EN 61000-6-1: 2007 Generic Standards for Residential, Commercial and Light-Industrial Environments	

All product specifications are subject to change without notice.

BB-232SPH14_4818ds

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