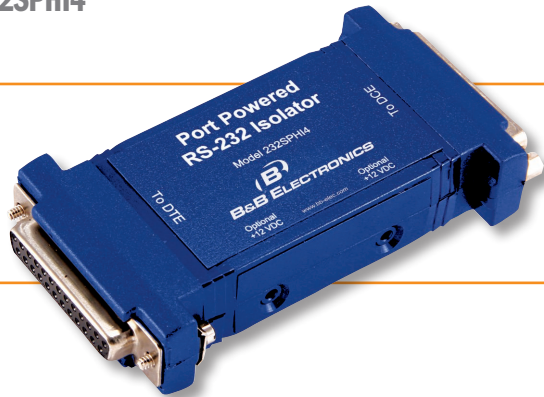


4kV RS-232 Optical Isolator

232SPH14



PRODUCT FEATURES

- 4,000V, 2-way optical isolation
- DB25 male and DB25 female connectors
- Can be used in 60601-1 applications
- Port-powered OR use optional external power supply

The 232SPH14 isolates and protects RS-232 equipment from lightning surges, accidental high voltage shorts, and ground loops. RS-232 data signals at up to 115.2K bps as well as the RTS and CTS handshake lines are supported. The 232SPH14 provides 4000 Volts of isolation between sides, and maintains creepage and air clearances required for double or reinforced insulation by IEC 60601-1.

Model 232SPH14 has 4000 Volts of isolation — twice the rating of most isolators — to protect RS-232 equipment from lightning strikes, accidental high voltage shorts and ground loops.

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. This versatile powering configuration minimizes the number of supplies required by the overall system.

ACCESSORIES

232PS2 - 12VDC@100mA wall transformer power supply, tinned stripped leads

PS1EU-1000 - 220-240 VAC to 12 VDC Power Supply, jack, Euro CEE7/7 plug

PS1UK-1000 - 220-240 VAC to 12 VDC wall power supply, jack, UK BS-1363 plug

232CAMR - DB9 Male to DB25 Female, 6 in (15.2 cm)

232CAMS - DB9 Female to DB25 Male, 6 in (15.2 cm)

ORDERING INFORMATION

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

SPECIFICATIONS

SERIAL TECHNOLOGY

Data Rate	115.2 kbps maximum
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RS-232

Connector	DB25 female (DTE)
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Connector	DB25 male (DCE)
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Signals	TD, RD, RTS, CTS
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Transmission Mode	Asynchronous, half or full duplex, point-to-point
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POWER

Source	Port-powered from RS-232 data and handshake lines
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Optional External Source	+10 to +16 VDC @ 40 mA max
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External Connections	2.5mm power jacks (tip positive) or DB25 connectors pins 11 (+) and 12 (-)
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ISOLATION

Volts/Duration	4,000 Volts RMS isolation for 1 minute (may be limited by external supply)
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MECHANICAL

Dimensions	10.4 x 5.8 x 2.4 cm (4.1 x 2.3 x 0.95 in)
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Minimum Air Clearance between DTE & DCE Sides:	5 mm (0.197 in)
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Minimum Creepage Distance between DTE & DCE Sides:	8 mm (0.315 in)
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Distance between DTE & DCE Sides:	8 mm (0.315 in)
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Distance between DTE & DCE Sides:	8 mm (0.315 in)
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Distance between DTE & DCE Sides:	8 mm (0.315 in)
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ENVIRONMENTAL

Operating Temperature	0 to +70 °C
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Storage Temperature	-55° to 125°C
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Operating Humidity	10 to 90% Non-Condensing
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MTBF	351896
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MTBF Calc. Method	Parts Count Reliability Prediction
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APPROVALS / CERTIFICATIONS - 232SPH14

FCC Part 15, CISPR, EN 55022: 2010 + AC:2011 Class B Emissions

CE

IEC 60601-1-2:2007 Medical Electrical Equipment, Electromagnetic Compatibility

EN 61000-6-1: 2007 Generic Standards for Residential, Commercial and Light-Industrial Environments

EN 61000-4-2: 2009 Electro-Static Discharge (ESD)

EN 61000-4-3: 2006 +A1 +A2 +IS1 Radiated Field Immunity (RFI)

EN 61000-4-4: 2012 Electrical Fast Transients-Burst Immunity (EFT)

Download complete Declaration of Conformity at www.bb-elec.com