

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

Model 232SPHI4

B+B SMARTWORX

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PRODUCT FEATURES

- 4,000V, 2-way optical isolation
- DB25 male and DB25 female connectors
- Port-powered OR use optional external 12VDC power supply

Model 232SPHI4 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. The 232SPHI4 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. 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 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
232SPHI4	4	DB25 Female	DB25 Male	4,000 V

ACCESSORIES

SM16-12-V-P230-C1 - Power Supply, 12 VDC 6 Watt, 2.5MM Plug, International AC Input, International AC Blades

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

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

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

SPECIFICATIONS - continued

ENVIRONMENTAL	
Operating Temperature	0 to +70 °C
Storage Temperature	-55 to 125 °C
Operating Humidity	10 to 90% Non-Condensing
MTBF	351896
MTBF Calc. Method	Parts Count Reliability Prediction
APPROVALS / CERTIFICATIONS - 232SPHI4	
FCC Part 15, CISPR, EN55032	
CE	
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)	

All product specifications are subject to change without notice.
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