

RS-232 Optical Isolator

9POP4



PRODUCT FEATURES

- 2.5 kV isolation
- ESD protection - 15 kV
- Protects up to 4 channels
- 230.4 kbps
- Ideal for laptops, lower power serial ports

The 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 are supported at up to 230.4 kbps. Isolation circuits are 2.5 kV rated and protects valuable equipment while maintaining maximum uptime.

Each side of the isolator receives power from a single 12 VDC power supply to maintain the 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.

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.

Power supplies recommended and available from B+B Electronics have been tested and certified. Using any other power supply may bypass or degrade the isolation barrier.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
9POP4	RS-232 4-Channel Optical Isolator

SPECIFICATIONS

SERIAL TECHNOLOGY

RS-232	TD, RD, RTS, CTS, GND
Data Rate	230.4 kbps
Isolation	2.5 kV
ESD	15 kV Air Discharge, 8 kV Contact
Connectors	DB9 female (DCE) DB9 male (DTE)

POWER

Source	External required
Power Connector	2.5 mm jack
Input Voltage	12 VDC
Power Consumption	731 mW

MECHANICAL

Dimensions	10.4 x 4.3 x 2.0 cm (4.1 x 1.7 x 0.86 in)
Enclosure	IP 30, plastic
Weight	54.4 g (0.12 lbs)
MTBF	262084 hours
MTBF Calc. Method	MIL 217F Parts Count Reliability

ENVIRONMENTAL

Operating Temperature	0 to 70°C
Storage Temperature	-40 to 85°C
Operating Humidity	0 to 95% Non-condensing

APPROVALS / CERTIFICATIONS

Emissions	FCC Class B, CISPR Class B (EN55022)
CE	EN61000-6-1:2007 (Light Industrial)
	EN61000-4-2:2008 (ESD) ESD, ±8kV/±15kV (contact/air)
	EN61000-4-3:2006 (RFI) RFI, 80-1000MHz 3V/m, 1.3 - 2.7 GHz, 3V/m
	EN61000-4-4:2004 (EFT Burst) EFT, ±1kV Power, ±500V Data Lines
	EN61000-4-5: Ed2, 2005 (Surge) Surge, ±2kV Power (AC), N/A on Data Lines
	EN61000-4-6:2005 (CI) CI, 3Vrms all ports

ACCESSORIES

232PS - 12VDC@100mA wall transformer power supply, 2.5mm jack

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

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

MMNM9 - Null Modem Adapter – DB9 Male / DB9 Male