

232i-9 232i-25

RS-232 TO RS-232 ISOLATORS

Description

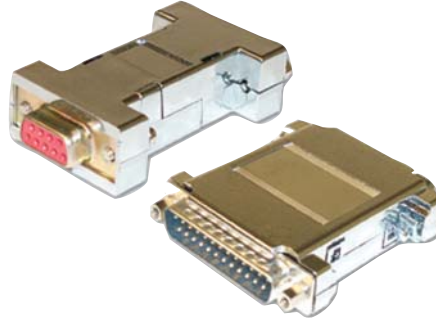
The 232i series Isolators are self-powered RS-232 to RS-232 Isolators that provide up to 2,500 volts of isolation between a PC and an external serial device. The 232i Isolators are compact devices that can be inserted in the RS-232 data path and provide bidirectional data transfers at rates up to 115,200 baud. Use a 232i Isolator to eliminate ground loops and to protect the PC or any serial device from damage due to external transients.

Isolation

The 232i Isolators uses optical isolators to achieve 2,500 volts of DC isolation. AC coupling is held to a minimum by the low capacitance in the optical isolators. Peak noise and voltage transients up to 75 volts are tolerated without data corruption.

Protects the PC Motherboard

As more PCs include the RS-232 drivers on the motherboard, it is no longer possible to fix a damaged RS-232 driver chip by replacing an inexpensive Serial Interface Card. Instead the PC has to be

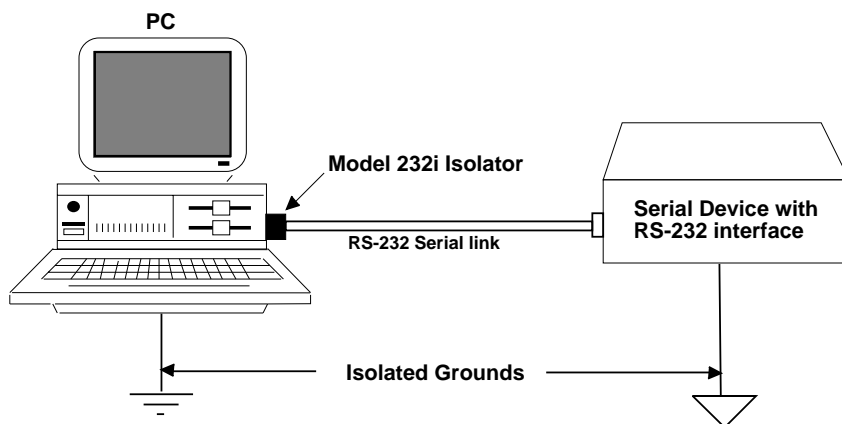


232i-9 and 232i-25 Isolators

dismantled and the surface mount chip replaced. Because this is a fairly difficult task and requires an experienced technician to avoid damaging the multilayer motherboard, it inevitably means taking the PC to a repair shop for several days.

The 232i Isolators can help prevent damage to the PC motherboard from ground loops or AC transients. Use a 232i Isolator to isolate serial devices where power ground loops or AC noise are known problems or in test applications. For serial data paths through noisy electrical environments, our RS-232 to RS-485 converters are recommended as their differential signals are more immune to induced noise.

- Provides up to 2,500 volts of Isolation.
Eliminates ground loops and noise problems.
- High 115,200 baud rate.
Handles most baud rates.
- Standard 9-pin and 25-pin connectors.
Fits on most RS-232 devices.
- Bi-directional data transfer
Does not interfere with normal serial data flow.
- Small external module.
Does not tie up a card slot.
- Manufactured to ISO 9000 and meets new European Electromagnetic compatibility requirements.
Improved quality product.



Using a 232i to isolate a floating serial device

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232i DESCRIPTION cont'd

Converter Device Type

Each 232i has a male and female connectors. The female connector end plugs into a PC COM port and the male connector accepts standard RS-232 cables. The 232i's female connector is factory configured as a DCE (Data Communication Equipment) device for direct connection to a PC

COM port. The male isolated connector is configured as a DTE (Data Terminal Equipment) device to mimic the PC COM port.

Handshake Connections

The 232i provides two isolated handshake signals that can be a user

designated handshake pair. User can select a handshake pair from all of the popular handshaking protocols such as RTS/CTS, etc.

Application Support

For more information about serial communication or how to use converters, download Application Notes from our website at www.icsdatacom.com

SPECIFICATIONS

RS-232 Specifications

Connections 232i-25	DB 25 pin female and DB-25-pin male connectors
232i-9	DE-9 pin female and DE-9-pin male connectors

RS-232 Specifications

Signals	Tx, Rx, DSR, DCD and DTE
Input Voltage	
Space or On	+2.4 to +30 V
Mark or Off	-30 to + 0.8 V
Input Resistance	5 K ohm (typ.)
Output Voltage	+9 V or -9 V
Output resistance	300 ohm (typ)

Power Requirements

none

Physical

Size	67 mm L x 43 mm W x 20 mm L (2.63" L x 1.7" W x 0.8" H)
Temperature	
Operating	0 to + 60 °C
Storage	-20 to + 70 °C

Supplied Accessories

Instruction Manual on CD ROM

ORDERING INFORMATION

	Part Number
RS-232 Isolator with 9-pin female connector	232i-9
RS-232 Isolator with 25-pin female connector	232i-25