



## Model: rdc232ir9

### Isolated EIA/RS-232 Repeater (9-wire: Txd Rxd DTR/DSR RTS/CTS CD RI Gnd)

The rdc232ir9 safely connects two RS-232 devices without danger of ground loops and damaging surges. The RS-232 signals have 2.5kV optical isolation, plus two isolated supplies for full galvanic isolation. Unlike self-powered isolators that weaken the RS-232 signal and stress your hardware, the rdc232ir9 boosts the signal, effectively doubling the maximum RS-232 distance and allows performance up to 115 kbps.

The RS-232 signals are fully isolated, plus over 1 million ohms of impedance are added to the ground path. This effectively decouples the signal grounds and prevents surge currents. The RS-232 uses 9-pin d-shell with computer-style pin configuration. All standard RS-232 signals are supported. One DTE and one DCE port make it easy to install and test.

Isolation, industrial design, small size, DIN rail mount, user indication, and DC supply make the rdc232ir9 a very engineer-friendly device for your industrial data communication system.

#### RS-232 port Description:

Signal Type ..... EIA/RS-232 (C to F)  
 Voltage Levels ..... +/- 9v DC  
 Permitted Surge ..... +/- 25v DC  
 Surge Diodes Installed ..... +/- 15v, 500 watt

#### Isolation (ISO/IEC 9549):

RS-232 to RS-232 ..... 2500v (optical, 5kV test)  
 Power to RS-232 Port F ..... 2500v (galvanic, 3kV test)  
 Power to RS-232 Port L ..... model -2p = none, -3p = 2500v  
 Conformal Coating ..... (optional) 5000v rating

#### Power Supply Options:

9v to 36v DC (1watt max)..... 12v or 24v including batteries  
 5v DC +/- 5% (4.75-5.25v)..... 5v for OEM integration  
 User Indication ..... Green LED for power status

#### Communication:

Max Speed ..... 115200 bps  
 Character Setting ..... Transparent, no config required  
 User Indication ..... Yellow LED for data received (Rxd) and DTR status (Rdy)  
 Standard Distance ..... 15m with 2500pf per wire  
 Practical maximum Distance.. 55m with low-cap (42pF) cable

#### Environmental:

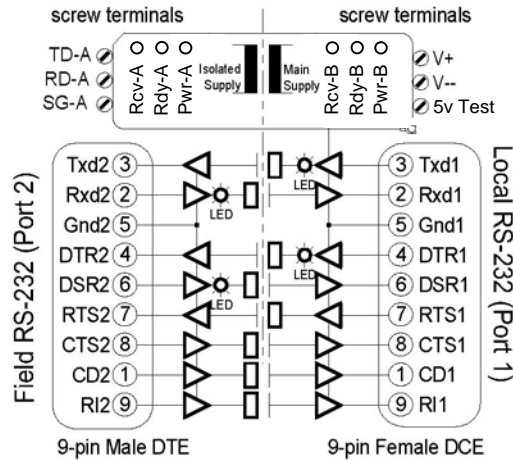
Ambient operating temperature.. 0C to + 60C  
 Ambient storage temperature.... -40C to +100C  
 Relative Humidity..... 10 to 95% RH, non condensing  
 Casing..... good fungus & termite resistance; self-extinguishing.  
 Weight .....130g.  
 DB9 Connectors ..... 30µ gold pins, 500 insertion cycles  
 Screw Terminal Capacity ..... 2.5mm strand (12 AWG)  
 ..... 4.0mm solid (12 AWG).  
 Mounting Rail ..... DIN EN 50022  
 ..... (35mm symmetrical)  
 ..... DIN EN 50025 (32mm asymmetrical)

(Note: Style DIN 50022 works best)

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(Version 1.1) Specifications subject to change without notice

#### Block Diagram



#### Application Details:

The rdc232ir9 is ideal for use with radio modems or in situations where you desire maximum future flexibility. Since all 9 standard signals pass through the isolator, you can support any RS-232 serial application.

#### Order Information:

rdc232ir9

#### Input Power Supply (Select One)

**dv** 9 to 36vDC, 1 watt (50mA@24v)  
**hv** 38 to 58vDC, 1 watt (25mA@48v)  
**5v** 5vDC +/- 5% (120mA max)

#### Ground Isolation (Select One)

**3p** Full 3-of-3  
**2p** Partial 2-of-3 (Port L = Power Ground)

#### Connectors (No Option)

**dd** 9-pin D-Shell (one DCE, one DTE)

#### Other Options (none required)

**fc** Conformal Coating (+5000v)

Example: model **rdc232ir9-dv-3p-dd** is an "Isolated RS-232 Repeater, 9-wire, DIN-Rail Mount, 9-36vDC Supply, Full 3-of-3 Ground Isolation, both RS-232 ports with 30µ gold-plated 9-pin D-shell connectors."

#### Mechanical Dimensions: mm (inches)

