

Model: rdc232fo

RS-232 to Fiber Optics Converter

The rdc232fo safely and easily connects your panel mounted RS-232 devices to fiber optic cables up to 4 km long, providing the ultimate in isolation, surge, and noise protection. Even the RS-232 port is galvanically isolated from the DC supply ground. ST, SC or SMA connectors can be selected, plus the quality Hewlett Packard components used are guaranteed to work with 62.5/125, 100/140, and 50/125 μm fiber sizes.

Isolation, industrial design, small size, DIN rail mount, user indication, and wide range DC supply make the rdc232fo a very engineer-friendly device for your industrial data communication system.

Specification

Fiber Optic

Connector : ST (bayonet), SC or SMA (threaded)
 Fiber Size : 62.5/125, 100/140, and 50/125 μm
 Insertion Loss : 0.2dB typically
 Technology : 820 nm wavelength, GaAlAs emitters
 Power : typically -12dBm into 62.5/125 μm fiber

RS-232

Signal Type : EIA/RS-232E
 Voltage Level : +/- 9 vDC
 Permitted Surge : +/- 25 vDC

Isolation

RS-232 to fiber : complete galvanic isolation
 Supply to fiber : complete galvanic isolation
 Supply to RS-232 : 1-port = none ; 2-port = 2.5Kv

Power Supply

9v to 36vAC or DC : 0.75w normal operation (1.5w test mode)
 5v DC +/- 5% : 50mA normal operation (125mA test mode)
 User Indications : Green LED for each isolated supply

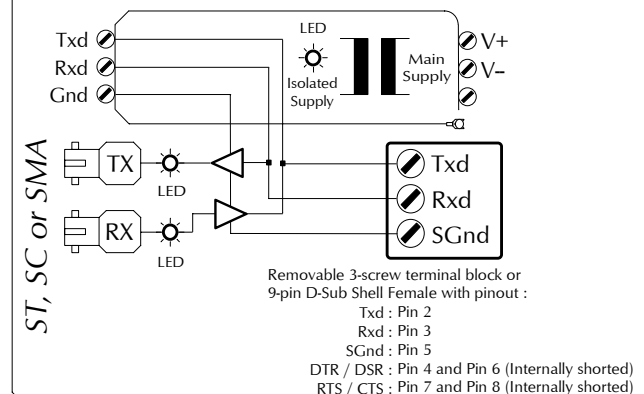
Communication

Max Speed : at least 115Kbps at standard distances
 Character Setting : transparent, no configuration required
 User Indications : Txd and Rxd have LED (yellow) indications
 Standard Distance : 15m for EIA/RS-232; 2 Km 62.5/125 μm fiber
 Practical Distance : less than 50m for RS-232, 4000m for fiber
 (requires quality, low-cap cable < 50 pf/m)

Mechanical / Environment

Operating Range : -40C to +65C
 Storage Range : -40C to +100C
 Relative Humidity : 10 to 90% RH, non-condensing
 Terminals : wire up to 2.5mm (12 AWG)
 D-shell connector : 9-pin, 30 μ gold pins/sockets rated 500 cycles
 Case Material : nylon polyimide, fungus and termite resistant
 Weight : self-extinguishing
 Mounting Rail : approx 130g
 : DIN EN 50 022 or DIN EN 50 035

Block Diagram



Order Information

rdc232fo - - -

Connector Configuration
st ST bayonet connector
sc SC connector
sma SMA threaded connector

Galvanic Isolation Configuration
2p 1Kv isolation between RS-232 & supply
1p non-isolated, RS-232 SGnd = supply V-

Power Supply Configuration
dv 9v to 36v Unregulated DC Supply
av 9v to 36v Unregulated AC Supply
5v 5v +/- 5% Regulated DC Supply

Boxes in bold denote factory default options

Option non-isolated (-1p) is only available with a regulated 5v power supply (-5v)

Testing your fiber optics - the top screw-terminal Rxd can also be used to easily test your fiber optics link. Connecting a +5 to +15vdc signal will force the fiber transmitter on, so you can easily see the light at the remote end - even with the naked eye. For example, 9v radio battery could be used to provide this test signal.

Dimensions in mm (and inches)

