Robust Data Comm

Making Industrial Data Flow Like Water ... Safely, Silently, & Sanely

CO. & GST REG. NO: 19-9600 372-Z

ISO 9001:2008 CERT NO.: 158206

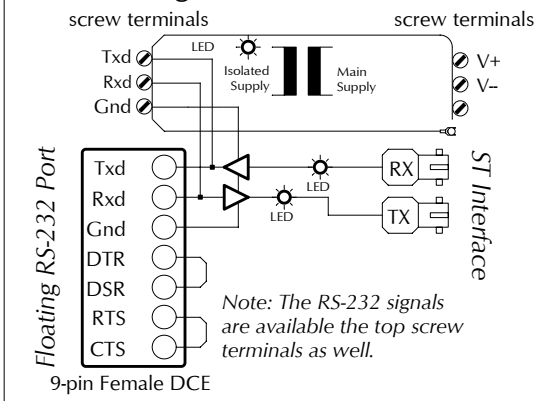
Model: rdc232fos

RS-232 to Fiber Optics Converter(Single Mode)

The rdc232fos safely and easily connects your panel mounted RS-232 devices to fiber optic cables up to 11 km long, providing the ultimate in isolation, surge, and noise protection. Even the RS-232 port is galvanically isolated from the DC supply ground. The ST connector, plus quality Hewlett Packard components used are guaranteed to work with 9/125 µm fiber sizes.

Isolation, industrial design, small size, DIN rail mount, user indication, and wide range DC supply makes the rdc232fos a very engineer-friendly device for your industrial data communication system.

Block Diagram



Specification

Fiber Optic

Connector : ST (bayonet)
Fiber Size : 9/125 µm
Insertion Loss : 0.2dB typically
Technology : 1310 nm wavelength, ELED
Link Loss Budget : typically 9 dBm

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 36v DC : 1.44 W normal operation (1.7 W test mode)
38v to 58v DC : 1.48 W normal operation (1.7 W test mode)
5v DC +/- 5% : 260 mA normal operation (300 mA 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
Practical Distance : less than 50m for RS-232, 11km 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 connecter : 9-pin, 30µ gold pins/sockets rated 500 cycles
Case Material : nylon polymide, fungus and termite resistant self-extinguishing
Weight : approx 130g
Mounting Rail : DIN EN 50 022 or DIN EN 50 035

Order Information

rdc232fos - [ ] - [ ] - [ ]

Connector Configuration

[st] ST bayonet connector (® of AT&T)

Galvanic Isolation Configuration

[2p] 1Kv isolation between RS-232 & supply
[1p] non-isolated, RS-232 SGnd = supply V-

Power Supply Configuration

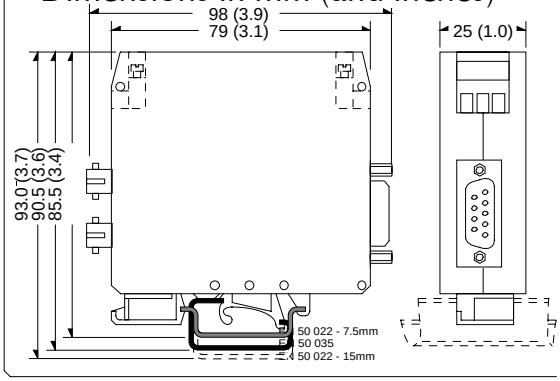
[dv] 9v to 36v Unregulated DC Supply
[hv] 38 to 58v Unregulated DC Supply
[5v] 5v +/- 5% Regulated DC Supply

Boxes in bold denote factory default options

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

Testing - 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)



www.robustdc.com

(Version 1.0) Specifications subject to change without notice.

Robust DataComm Pte Ltd (USA) 26471 Portola Pkwy #1E-242, Foothill Ranch CA 92610-1743, +1,972-248-7466 (International)
18 Kaki Bukit Road 3 #02-08 Entrepreneur Business Centre Singapore 415978, +65,6487-5624