

## Model: rdc485fo

### RS-422/485 to Fiber Optics Converter

The rdc485fo safely and easily connects your panel mounted RS-422/485 devices to fiber optic cables up to 4 km long, providing the ultimate in isolation, surge, and noise protection. Even the RS-485 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  $\mu$ m fiber sizes.

Isolation, industrial design, small size, DIN rail mount, user indication, and wide range DC supply make the rdc485fo 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  $\mu$ m
- Insertion Loss : 0.2dB typically
- Technology : 820 nm wavelength, GaAlAs emitters
- Power : typically -12dBm into 62.5/125  $\mu$ m fiber

### RS-485 (compatible with EIA-422)

- Signal Type : EIA/RS-422A & RS-485A
- Voltage Level : -7 to +12VDC
- Permitted Surge : +/- 25 vDC

### Isolation

- Supply to Fiber : Intrinsically Isolated
- RS-485 to Fiber : Intrinsically Isolated
- Supply to RS-485 : 1-port = none ; 2-port = 2.5Kv

### Power Supply

- 38 to 58 Vdc : 30 mA (Max) @ 48 Vdc
- 9v to 36 Vdc : 50 mA (Max) @ 24 Vdc
- 5v DC +/- 5% : 200 mA (Max) @ 5 Vdc
- User Indications : Green LED for each isolated supply

### Communication

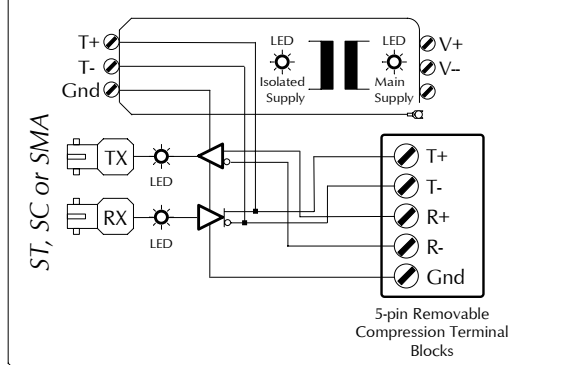
- Max Speed : at least 115Kbps at standard distances
- Character Setting : transparent, no configuration required
- User Indications : Yellow LED indications for Txd and Rxd
- Standard Distance : 1000m for EIA/RS-485; 2 Km 62.5/125  $\mu$ m fiber
- Practical Distance : less than 3000m for RS-485, 4000m 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 $\mu$  gold pins/sockets rated 500 cycles
- Case Material : nylon polyimide, fungus and termite resistant self-extinguishing
- Weight : approx 130g
- Mounting Rail : DIN EN 50 022 or DIN EN 50 035

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(Version 1.1) Specifications subject to change without notice.

### Block Diagram

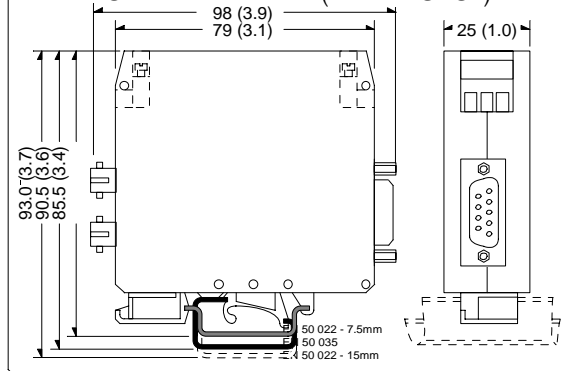


### Order Information

- rdc485fo - **st** - **2p** - **hv**
- Connector Configuration**
    - st** ST bayonet connector
    - sc** SC threaded connector
    - sma** SMA threaded connector
  - Galvanic Isolation Configuration**
    - 2p** 1Kv isolation between RS-485 & supply
    - 1p** non-isolated, RS-485 (SGnd = supply V-)
  - Power Supply Configuration**
    - hv** 38v to 58v Unregulated DC Supply
    - dv** 9v to 36v Unregulated DC Supply
    - 5v** 5v +/- 5% Regulated DC Supply

Boxes in bold denote factory default options

### Dimensions in mm (and inches)



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