

RS232/422 point-to-point data transceiver



Description

The ComNet™ FDX50M2 and FDX51M2 data transceivers are interchangeable by application and provide point-to-point transmission of simplex or duplex EIA RS232/RS422 data signals over two multimode optical fibers. The transceivers are transparent to data encoding allowing for broad-range compatibility. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. Each transceiver incorporates a bi-color (Red/Green) indicating LED for monitoring proper system operation. The FDX50 has a small footprint and is designed for surface mounting. Packaged in the exclusive ComNet ComFit housing, FDX51 units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate.

Applications

- Access Control Systems
- Building Automation and Environmental Control Systems
- Computer/Data Equipment
- Fire and Alarm Systems
- Traffic Signal Control Equipment

Features

- Meets EIA RS232/422 specifications
- Distances up to 4.5 km (2.5 miles)
- Transparent to data encoding/compatible with major data protocols
- Point-to-Point topology
- Tested and certified by an independent laboratory for full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- Data rates up to 115 Kbps (NRZ)
- Voltage transient protection on all power and signal input/output lines provides unconditional protection from power surges and other voltage transient events.
- Bi-Color (Red/Green) Transmit and Receive LED's
- NTCIP compatible
- Automatic resettable solid-state current limiters
- FDX50 is a compact size module for surface mounting
- FDX51 is a hot-swappable rack module
- FDX51 is interchangeable between stand-alone or rack mount use – ComFit
- Five year warranty

specifications

DATA

Data Format: RS232 (data lines only), RS422, Manchester, bi-phase
 Data Rate: DC-115 kbps (NRZ)
 Operating Mode: Asynchronous, simplex or full duplex
 Bit Error Rate: <1 in 10⁶

WAVELENGTH

850 nm, Multimode

FIBERS

2

OPTICAL EMITTER

LED

LED INDICATORS

- Receive Data
 - Transmit Data

CONNECTORS

Optical: ST
 Data and Power: Terminal Block

ELECTRICAL & MECHANICAL

Power: 8-15 VDC @ 70 mA
 Surface Mount: From Rack (FDX51)
 Rack: 1
 Number of Rack Slots: Automatic Resettable Solid-State Current Limiters Meets IPC Standard
 Current Protection:
 Circuit Board:
 Size (in./cm) (L×W×H): 4.1 × 3.7 × 1.1 in., (10.4 × 9.4 × 2.8 cm)
 Surface Mount (FDX50): 6.1 × 5.3 × 1.1 in., (15.5 × 13.5 × 2.8 cm)
 Rack Mount (FDX51):
 Shipping Weight: <2 lbs./0.9 kg

ENVIRONMENTAL

MTBF: >100,000 hours
 Operating Temp: -40° C to +75° C
 Storage Temp: -40° C to +85° C
 Relative Humidity: 0% to 95% (non-condensing)[†]

[†] May be extended to condensation conditions by adding suffix '/C' to model number for conformal coating.

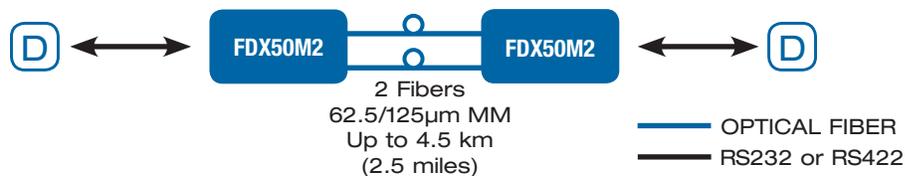


| PART NUMBER | DESCRIPTION | FIBERS REQUIRED | FIBER | OPTICAL PWR BUDGET | MAX. DISTANCE | # RACK SLOTS |
|-------------|----------------------------------|-----------------|--------------------------------------|--------------------|-----------------------|--------------|
| FDX50M2 | RS232/RS422 Transceiver (850 nm) | 2 | Multimode [‡] 62.5/125µm | 16 dB | 4.5 km (2.5 miles) | NA |
| FDX51M2 | RS232/RS422 Transceiver (850 nm) | 2 | | | | 1 |

Options Add '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory)
 DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1)

NOTE: 9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included). This product requires a fiber installation with a minimum 30dB connector return loss. The use of Super Polish Connectors is recommended. ‡ For 50/125µm fiber, subtract 4 dB from the optical power budget.

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J
 In a continuing effort to improve and advance technology, product specifications are subject to change without notice.



NOTE: Unit can be used for transmission of RS232 or RS422, but not simultaneously.



3 CORPORATE DRIVE | DANBURY, CT 06810 | USA
 T: 203.796.5300 | F: 203.796.5303 | TECH SUPPORT: 1.888.678.9427 | INFO@COMNET.NET
 8 TURNBERRY PARK ROAD | GILDERSOME | MORLEY | LEEDS, UK LS27 7LE
 T: +44 (0)113 307 6400 | F: +44 (0)113 253 7462 | INFO-EUROPE@COMNET.NET