

RS232/RS422/RS485 data transceiver



Description

The ComNet™ FDX60(M)(S)(-M) data transceivers provide point-to-point transmission of simplex or duplex EIA RS232/RS422/RS485 (2W/4W) data signals over one or two optical fibers. The transceivers are transparent to data encoding allowing for broad-range compatibility. Models within this series are available for use with multimode or single mode optical fiber. 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 FDX60(M)(S)-M has a small footprint and is designed for surface mounting. Packaged in the exclusive ComNet ComFit housing, the FDX60(M)(S) units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate. The FDX60(M)(S)(-M) has a built-in fiber link test feature that allows for the testing of the fiber.

Applications

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

Features

- Meets EIA RS232C/D and RS422/RS485 (2 or 4-wire) specifications
- 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.
- Robust design assures extremely high reliability in unconditioned out-of-plant/roadside environments
- LED status indicators provide rapid indication of all critical operating parameters
- NTCIP compatible
- Fiberlink Fiber Link Tester
- Voltage transient protection on all power and signal input/output lines provides unconditional protection from power surges and other voltage transient events.
- Wide optical dynamic range: optical attenuators are never required
- Hot-swappable rack modules
- Interchangeable between stand-alone or rack mount use
 - ComFit
- Lifetime Warranty



specifications

DATA

Data Format: RS232, RS422, 2 or 4-wire RS485
w/Tri-State, Manchester, bi-phase, Sensornet
Data Rate: DC-250 kbps
Operating Mode: Asynchronous, simplex or full-duplex
Bit Error Rate: $<10^{-9}$ @ Maximum Optical Loss Budget

WAVELENGTH 1310/1550 nm

FIBERS 1 In/1 Out

OPTICAL EMITTER Laser

LED INDICATORS - Power - Data In - Data Out - Link - Loop Back

CONNECTORS

Power: Terminal Block
Optical: ST
Data: Terminal Block
Relay: Terminal Block

AGENCY COMPLIANCE



MADE IN THE
USA

ELECTRICAL & MECHANICAL

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

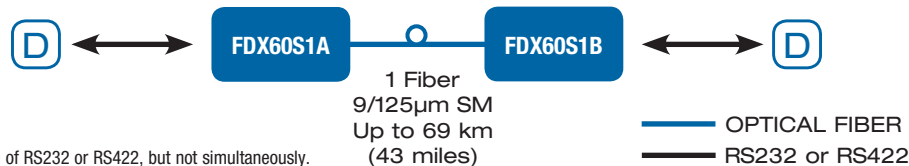
ENVIRONMENTAL

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 REQ'D	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE	# RACK SLOTS
FDX60M1(A)(B)-M	RS232, RS422, RS485(2W & 4W), Mini	1	Multimode 62.5/125µm	16 dB	4 km (2.5 miles)	NA
FDX60M1(A)(B)	RS232, RS422, RS485(2W & 4W)	1	Multimode 62.5/125µm	16 dB	4 km (2.5 miles)	1
FDX60S1(A)(B)-M	RS232, RS422, RS485(2W & 4W), Mini	1	Single Mode 9/125µm	23 dB	69 km (43 miles)	NA
FDX60S1(A)(B)	RS232, RS422, RS485(2W & 4W)	1	Single Mode 9/125µm	23 dB	69 km (43 miles)	1
FDX60M2-M	RS232, RS422, RS485(2W & 4W), Mini	2	Multimode 62.5/125µm	16 dB	4 km (2.5 miles)	NA
FDX60M2	RS232, RS422, RS485(2W & 4W)	2	Multimode 62.5/125µm	16 dB	4 km (2.5 miles)	1
FDX60S2-M	RS232, RS422, RS485(2W & 4W), Mini	2	Single Mode 9/125µm	23 dB	69 km (43 miles)	NA
FDX60S2	RS232, RS422, RS485(2W & 4W)	2	Single Mode 9/125µm	23 dB	69 km (43 miles)	1

Accessories 9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included)
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: Unit can be used for transmission of RS232 or RS422, but not simultaneously.

comnet
Communication Networks

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