



INCLUDED



-40° TO +75°



1



The ComNet FDX60 series 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. The FDX60 has a built-in fiber link test feature that allows for the testing of the fiber.

FEATURES

- › Meets EIA RS232C/D and RS422/RS485 (2 or 4-wire) specifications
- › Robust design assures extremely high reliability in unconditioned out-of-plant/roadside environments
- › NTCIP compatible
- › Fiberlink Fiber Link Tester
- › Wide optical dynamic range: optical attenuators are never required
- › Designed to meet 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.
- › Voltage transient protection on all power and signal input/output lines provides protection from power surges and other voltage transient events.
- › LED status indicators confirm operating status

- › Plug-and-play design ensures ease of installation and no electrical or optical adjustments are ever required.
- › ComFit form factor allows the unit to be interchangeable between stand-alone or rack mount use, or it can be DIN-rail mounted with optional DINBKT1 or DINBKT4 mounting kit.
- › Hot-swappable rack modules
- › FDX60-M has a small footprint and is designed for surface mounting
- › Lifetime Warranty

APPLICATIONS

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

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

Fiber Optic

Wavelength	1310/1550 nm
Fibers	1 In/1 Out
Optical Emitter	Laser

Connectors

Power	Terminal Block
Optical	ST
Data	Terminal Block

Power

Operating Voltage Range	9 to 30 VDC
Rack Mount (ComFit units)	Power supplied from rack
Power Consumption	2 W
Current Protection	Automatic Resettable Solid-State Current Limiters

Electrical & Mechanical

Indicating LEDs	Power	Data In	Data Out	Link	Loop Back
Circuit Board	Meets IPC Standard				
Size					
Mini	4.1 × 3.7 × 1.1 in (10.4 × 9.4 × 2.8 cm)				
ComFit	6.1 × 5.3 × 1.1 in (15.5 × 13.5 × 2.8 cm)				
Number of Rack Slots	1 (ComFit Units)				
Shipping Weight	<2 lb / 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) ¹

AGENCY COMPLIANCE

MADE IN THE
USA

ORDERING INFORMATION

Part Number	Fibers	Cable	Optical Power Budget	Maximum Distance ²	Rack Slots
FDX60M1A-M	1	Multimode	16 dB into a 62.5µm core	4 km (2.5 miles)	NA
FDX60M1B-M	1	Multimode	16 dB into a 62.5µm core	4 km (2.5 miles)	NA
FDX60M1A	1	Multimode	16 dB into a 62.5µm core	4 km (2.5 miles)	1
FDX60M1B	1	Multimode	16 dB into a 62.5µm core	4 km (2.5 miles)	1
FDX60S1A-M	1	Single Mode	23 dB into a 9µm core	69 km (43 miles)	NA
FDX60S1B-M	1	Single Mode	23 dB into a 9µm core	69 km (43 miles)	NA
FDX60S1A	1	Single Mode	23 dB into a 9µm core	69 km (43 miles)	1
FDX60S1B	1	Single Mode	23 dB into a 9µm core	69 km (43 miles)	1
FDX60M2-M	2	Multimode	16 dB into a 62.5µm core	4 km (2.5 miles)	NA
FDX60M2	2	Multimode	16 dB into a 62.5µm core	4 km (2.5 miles)	1
FDX60S2-M	2	Single Mode	23 dB into a 9µm core	69 km (43 miles)	NA
FDX60S2	2	Single Mode	23 dB into a 9µm core	69 km (43 miles)	1

Accessories DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included, for benign 0 to 50°C applications only. Hardened power supply available, consult factory)

Options [1] Add 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)
DIN-Rail Mounting Adaptor Plate Kit - With mounting hardware (Optional, order model DINBKT1 or DINBKT4)

[2] Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.
Distance can also be limited by fiber bandwidth.

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.

TYPICAL APPLICATION



Optical Fiber
RS232 Or RS422
Unit can be used for transmission of
RS232 or RS422, but not simultaneously.