Universal RS232/422/485 Data Point-to-Point Transceiver

FDX70E(A,B)(M,S)1

INCLUDED HARDENED 1

The ComNet™ FDX70 data transceivers provide point-to-point transmission of simplex or duplex EIA RS232/RS422/RS485 (2W/4W) data signals over one single mode or multimode optical fiber. 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.

FEATURES

› Meets EIA RS232C/D and RS422/RS485 (2 or 4-wire) specifications

› 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.

› Robust design assures extremely high reliability in unconditioned out-of-plant/roadside environments

› NTCIP compatible

› Remote Fault Indication allows the user to determine when a fiber break or loss of prime operating power has occurred, or a transceiver in the field has failed

› Voltage transient protection on all power and signal input/output lines provides protection from power surges and other voltage transient events.

› Wide optical dynamic range: optical attenuators are never required

› Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters

› Hot-swappable rack modules

› Interchangeable between stand-alone or rack mount use – ComFit

› May be DIN-rail mounted with the ComNet model DINBKT1 or DINBKT4 adaptors (sold separately)

› 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-1Mbaud (RS422 & RS485) DC-250kbps (RS232)
Operating Mode	Asynchronous, simplex or full-duplex
Bit Error Rate	<10-12 @ Maximum Optical Loss Budget

Wavelength
1310/1550 nm, MM and SM

Number of Fibers
1

Optical Emitter
Laser Diode

LED Indicators
1. Power 2. Status 3. Data Out
4. Data In 5. Fiber Link Status

Failure Relay
Normally closed contact: Solid-State relay contacts rated at 0.5 mA, resistive load.

Electrical & Mechanical

Power	Terminal Block
Optical	ST
Data	Terminal Block
Relay	Terminal Block

Power

Operating Voltage Range	8 to 15 VDC
Power Consumption	4 W
Rack Power	From Rack

Electrical & Mechanical

Number of Rack Slots	1
Current Protection	Automatic Resettable Solid-State Current Limiters
Circuit Board	Meets IPC Standard
Size (L×W×H)	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)[1]

AGENCY COMPLIANCE
PART 15 COMPLIANT E322911 N24621

MADE IN THE USA

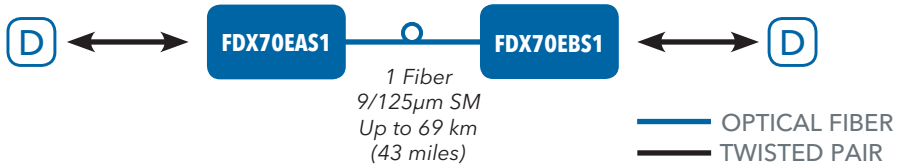
ORDERING INFORMATION

Part Number	Description	Fibers Required	Fiber	Optical Pwr Budget	Max Distance[2]	# Rack Slots
FDX70EAM1	Universal Data Point To Point "A" End, 1 Fiber, MM	1	Multimode 62.5/125µm	16 dB	4 km (2.5 mi)	1
FDX70EAS1	Universal Data Point To Point "A" End, 1 Fiber, SM	1	Single mode 9/125µm	23 dB	69 km (43 mi)	1
FDX70EBM1	Universal Data Point To Point "B" End, 1 Fiber, MM	1	Multimode 62.5/125µm	16 dB	4 km (2.5 mi)	1
FDX70EBS1	Universal Data Point To Point "B" End, 1 Fiber, SM	1	Single mode 9/125µm	23 dB	69 km (43 mi)	1
Accessories Options	DC Plug-in Power Supply, 90-264 VAC. 5060 Hz (Included) [1] Add '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit - With Mounting Hardware (Optional, order model DINBKT1)					

[2] Transmission distance will be diminished if additional losses are introduced by the optical connectors, splices and other factors regarding the quality of the fiber. Operating distance of multimode is limited by the characteristics of the fiber bandwidth. For additional information or support, contact the ComNet Applications Engineering Department.

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



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