

4 Wire Data E&M DIN Fiber Link System

The 4 Wire Data E&M DIN Fiber Link system provides simultaneous transmission of 4 wire data and single or bidirectional E&M over two optical fibers. The 4 wire data supports full duplex constant transmission up to 9600 bps in voice frequency range (300Hz-3.4KHz). The E&M module interfaces with an E&M input and provides an output on the far end.

The system includes convenient E&M input and output status LED indicators. RLH Fiber Link systems are made in the U.S.A. and covered by our **Limited Lifetime Warranty**.



4 Wire Data E&M DIN Fiber Link

Key Features

Environment

Hardened to operate in -40°F to +158°F (-40°C to +70°C)

Power

Dual power capable, line or local 24/48VDC

Application

Available with ST or SC connectors for single or multi-mode fiber
Full duplex, constant transmission
Critical, high voltage, remote or un-manned locations operating 24/7/365

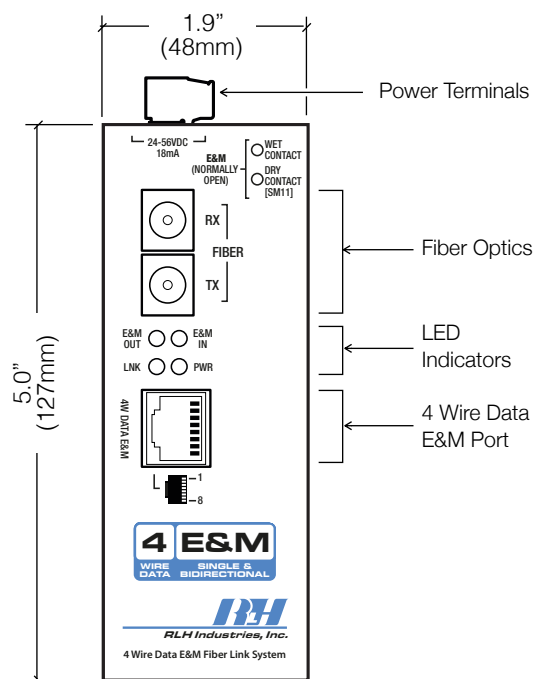
Compatibility

4 wire data E&M systems

Quality

Made in the USA

Covered by our **Limited Lifetime Warranty**



Feature & Dimensional Information

Ordering Information

Optics	Description	Distance	Fiber	Part Number
Multimode SC	CO/SUB DIN Fiber Link	2km / 1.2 mi	62.5/50 μ m	4ED-01-1
Multimode ST	CO/SUB DIN Fiber Link	2km / 1.2 mi	62.5/50 μ m	4ED-03-1
Single-mode SC	CO/SUB DIN Fiber Link	15km / 9 mi.	8~9 μ m	4ED-10-1
	CO/SUB DIN Fiber Link	50km / 31 mi.	8~9 μ m	4ED-11-1
Single-mode ST	CO/SUB DIN Fiber Link	15km / 9 mi.	8~9 μ m	4ED-20-1
	CO/SUB DIN Fiber Link	50km / 31 mi.	8~9 μ m	4ED-21-1

- ▶ A complete system requires 2 units.
- ▶ Add **-SM11** to part number for dry contact. *Example: 4ED-01-1-SM11.*
- ▶ Please contact your RLH sales representative for pricing and delivery information.

General Specifications

Transmission method	Frequency modulated light via two optical fibers Multimode: 850nm Single-mode: 1310nm
Maximum Fiber Loss / Distance*	Multimode: 8dB / 1.2 miles (2km) Single-mode: 8dB / 9 miles (15km) SM Long Haul: 26dB / 31 miles (50km); minimum 8dB <i>*Note: Distances equated using industry standard fiber and connector attenuation. (Multimode: 3.5dB/km, Single-mode: 0.4db/km, + 0.5dB per connector, + 0.3dB per splice)</i>
Fiber Type	Multimode: 62.5/125 μ m, 50/125 μ m ; Single-mode: 9/125 μ m
Fiber Connector Types	ST or SC
Analog Bandwidth	300 Hz to 3.4 KHz
Maximum Analog Data Rate	9600 bps (9.6Kbps)
DDS Data Rate	2.4Kbps and 4.8Kbps
E&M Input	5mA-200mA @ 6VDC, 48V Max.
E&M Output	2500VRMS isolation by solid state relay: Closed resistance 15 Ohms (220VAC or 330VDC @ 150mA max.) Open resistance >1M Ohms
Response Time	On: 1.4 μ s / Off: 1.9 msec (Dry Contact Only)
Channel Noise	< 20dBrnC (15dBrnC typical)
DC Resistance Limits	2000 Ohms typical for 50V DC CO battery
Nominal Impedance	600 Ohm input and output
Insertion Loss	0dB +/- 0.5dB each direction
Overload Level	8dBm into 600 Ohms
Surge Protection	PTC thermistors, zener diodes and varistors
Power Requirements	Line: 15mA ; Local: 24-56VDC, card current limits at 18mA
Power Connector	Screw type connector terminal, 12-26 AWG
Powering Method	Simplex line power or local DC power supply
Simplex Current Output Option	18mA@24VDC on XMIT pairs, Sub side only
Operating Temperature	-40° to +158° F (-40° to +70° C), 95% non-condensing
Dimensions	H5" x W1.9" x D3.9" (127mm x 48mm x 100mm) Not including connectors or DIN clip
Warranty	Limited Lifetime Visit www.fiberopticlink.com for warranty details