

4 Channel Analog Data DIN Fiber Link System

INDUSTRIAL, RUGGED, & COMPACT

This Fiber Optic Media converter transmits 4-20mA or 0-10VDC signals over fiber cable. Offers high end specifications: 78,000 samples a second, 16 bit signal resolution, and less than 0.1% source signal variance.

Compatible with most PLC's, Sensors (2, 3, or 4 wire), and other types of equipment where a precise current or voltage measurement must be taken and transmitted over fiber. The system comprises of a transmitter (Analog Input) and a receiver (Analog Output). Each device is enclosed in a compact DIN and wall mountable housing.

Designed to operate over an extreme temperature range, providing reliability in harsh environments. It was designed and is made in the U.S.A and is covered by our Limited Lifetime Warranty.



4 Channel Analog Data DIN Fiber Link System

Key Features

Environment

Hardened to operate in -40°C to +70°C environment
Immunity to noise in high voltage environments

Power

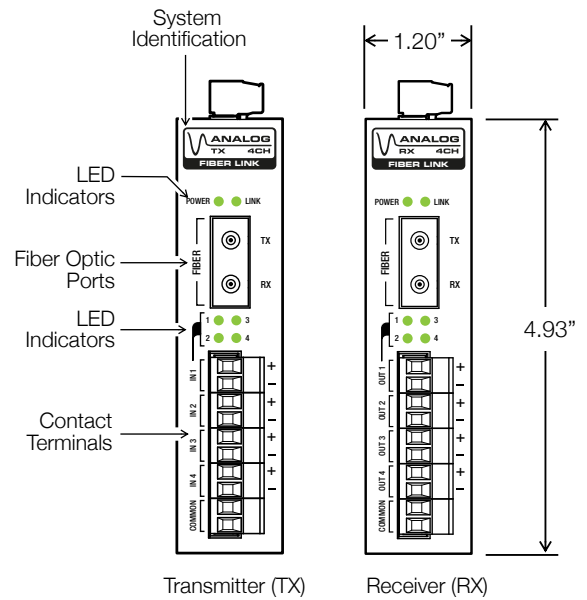
24VDC local power source required for each unit

Application

Available with ST or SC connectors for single-mode or multimode fiber
Transmit 4~20mA or 0~10VDC signals over fiber
99.9% Accuracy or Better
78,000 Samples a Second, 12.8µs Update Rate
16 Bit Signal Resolution
Supports 2, 3, & 4 Wire Transmitters
Integrated system alarm to monitor device power and link status

Quality

Made in the USA and covered by our Limited Lifetime Warranty



Feature & Dimensional Information

General Specifications

Connector Types	ST or SC		
Transmission method	Multimode:	1310nm	
	Single-mode:	1310nm/1550nm	
Maximum Fiber Attenuation / Distance	Dual Fiber	Multimode	
		(50µm & 62.5/125µm):	1.25mi./2 km range
	Single Fiber, Bi-directional	Single-mode (9/125µm):	12.4 mi./20km range
			37 mi./60km range
			74 mi./120km range
	Single-mode (9/125µm):	12.4 mi./20km range	
		37 mi./60km range	
<i>Note: Distances equated using industry standard fiber and connector attenuation. Fiber condition, splices, and connectors may affect actual range.</i>			
System Accuracy	4~20mA Models	99.9%	
	0~10VDC Models	99.9%	
	<i>Note: Accuracy for Complete Fiber Link System, Both Transmitter & Receiver at 25C° and powered by 24VDC</i>		
	Ambient Temp Effect:	Approximately 0.2% over operational range	
	Update Rate:	12.8µs (78,000 updates per second)	
	Signal Resolution:	16 Bits	
	Sensitivity:	2 ¹⁶ (65,536) Steps	
Analog Signal		4~20mA System	0~10VDC System
Analog Input 1~4	Differential Inputs		
	Operating Range:	0mA - 22mA (DC)	0 - 11VDC
	Impedance:	250 Ohms	200K Ohms
	Protection:	+/- 50mA	+/- 30V
Analog Output 1~4	Single-ended (unipolar)		
	Loop Voltage:	23.7VDC	N/A
	Maximum Loop Resistance:	1000 Ohms	1000 Ohms
	Protection:	+/- 32mA	+/- 32mA
Power Requirements	24 - 48VDC	Transmitter - 8 Watts Max.	
	Dual redundant power inputs	Receiver - 10 Watts Max.	
Wire Connector	Screw clamp terminal blocks, 16 ~ 26 AWG		
DC Input Isolation	1.5KV		
Surge Protection	PTC thermistors, zener diodes and varistors		
Over Current Protection	0.5A (Automatic Recovery)		
Operating Temperature	-40° to +158° F (-40° to +70° C), 95% non-condensing		
Dimensions	H4.93" x W1.2" x D3.5" (100mm x 31mm x 89mm) - Not including connectors		
Warranty	Limited Lifetime	Visit www.fiberopticlink.com for warranty details	

Ordering Information

Each 4 Channel 4~20mA or 0~10VDC Analog Data DIN Fiber Link unit is identified with a part number.

Mode	Connector	Distance	Fibers	Description	System Part Numbers		
					4~20mA	0~10VDC	
Multimode	SC	2km / 1.2 mi	Dual Fiber	Transmitter	ADH-420TX-03-1	ADH-010TX-03-1	
				Receiver	ADH-420RX-03-1	ADH-010RX-03-1	
	ST	2km / 1.2 mi	Dual Fiber	Transmitter	ADH-420TX-04-1	ADH-010TX-04-1	
				Receiver	ADH-420RX-04-1	ADH-010RX-04-1	
	Single-mode	SC	20km / 12.4 mi.	Dual Fiber	Transmitter	ADH-420TX-40-1	ADH-010TX-40-1
					Receiver	ADH-420RX-40-1	ADH-010RX-40-1
60km / 37 mi.			Dual Fiber	Transmitter	ADH-420TX-41-1	ADH-010TX-41-1	
				Receiver	ADH-420RX-41-1	ADH-010RX-41-1	
120km / 74 mi.		Dual Fiber	Transmitter	ADH-420TX-45-1	ADH-010TX-45-1		
			Receiver	ADH-420RX-45-1	ADH-010RX-45-1		
ST		20km / 12.4 mi.	Dual Fiber	Transmitter	ADH-420TX-50-1	ADH-010TX-50-1	
				Receiver	ADH-420RX-50-1	ADH-010RX-50-1	
		60km / 37 mi.	Dual Fiber	Transmitter	ADH-420TX-51-1	ADH-010TX-51-1	
				Receiver	ADH-420RX-51-1	ADH-010RX-51-1	
		120km / 74 mi.	Dual Fiber	Transmitter	ADH-420TX-55-1	ADH-010TX-55-1	
				Receiver	ADH-420RX-55-1	ADH-010RX-55-1	
SC	20km / 12.4 mi.	Single Fiber	Transmitter	ADH-420TX-10-1	ADH-010TX-10-1		
			Receiver	ADH-420RX-11-1	ADH-010RX-11-1		
	60km / 37 mi.	Single Fiber	Transmitter	ADH-420TX-14-1	ADH-010TX-14-1		
			Receiver	ADH-420RX-15-1	ADH-010RX-15-1		

- ▶ A complete system requires a **Transmitter** and a **Receiver**
- ▶ Single Fiber Systems: The transmitter is always **Side A** (T-1310/R-1550), the receiver is always **Side B** (T-1550/R-1310)
- ▶ Multimode systems are compatible with both 62.5µm & 50µm fiber cable
- ▶ Please contact your RLH sales representative for pricing and delivery information