0~10VDC Fiber Optic Converter

Transmit four 0~10VDC Analog Signals over Fiber with High Speed and Accuracy

The RLH 0~10VDC Fiber Optic Converter transmits 4 Analog signals over fiber cable while offering high performance with 500k samples per second, 16 bit signal resolution, and less than 0.1% source signal variance.

It is compatible with most PLC's, Sensors (2, 3, or 4 wire), and other types of equipment where a precise voltage measurement must be taken and transmitted over fiber. The system comprises of a transmitter (Analog Input) and a receiver (Analog Output).

This compact and rugged system provides convenient and easy to read LEDs, supports both singlemode and multimode fiber applications, and includes an alarm contact for monitoring system power and fiber health.

This system is engineered to operate over an extreme temperature range, providing reliability in harsh environments. It is designed and made in the USA, and covered by our Lifetime Warranty.

4 Channel 0~10VDC DIN Input Unit Shown

Features

System
- Compatible with all MSA compliant Gigabit SFPs
- Update rate: 500K samples per second
- 16 Bit Signal Resolution
- 99.9% Accuracy or Better
- Alarm contact for system status monitoring

Environment
- Hardened to operate in -40°F to +158°F (-40°C to +70°C)
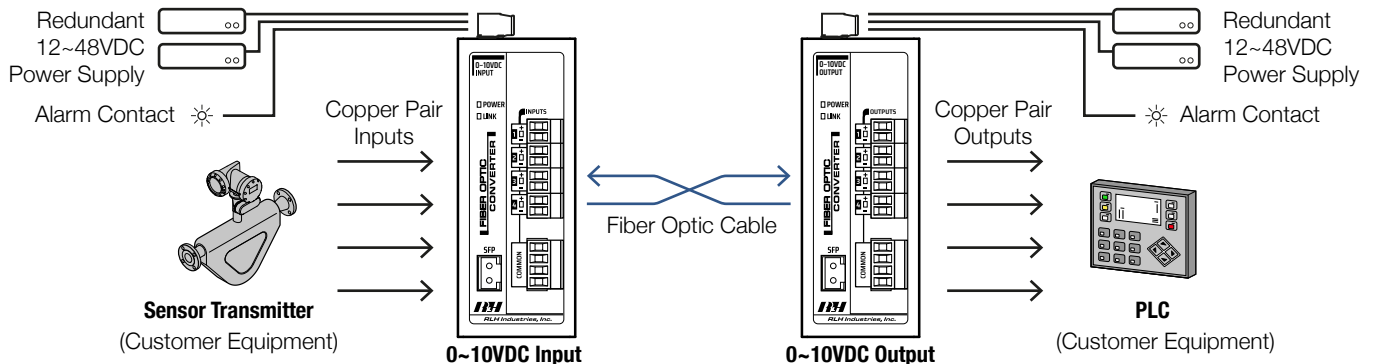- DIN rail or Wall Mount (Wall mount ears included)

Power
- Redundant Power Inputs (12~48VDC)

Quality
- Made in the USA
- Covered by our Lifetime Warranty

Application

Redundant 12~48VDC Power Supply

Alarm Contact

Copper Pair Inputs

Sensor Transmitter (Customer Equipment)

0~10VDC Input

Fiber Optic Cable

0~10VDC Output

Copper Pair Outputs

Redundant 12~48VDC Power Supply

Alarm Contact

PLC (Customer Equipment)

System Accuracy

Accuracy	99.9%
	Note: Accuracy for Fiber Link System, both Transmitter and Receiver at 25℃ and powered by 24VDC
Ambient Temp Effect	Approximately 0.2% over range -40°F to +158°
Update Rate	2µs (500,000 updates per second)
Signal Resolution	16 Bits
Sensitivity	2^{16} (65,536) Steps

Analog Inputs 1~4 (Single Ended)

Operating Range	0~10VDC
Impedance	200k Ohms
Protection	± 30V

Analog Outputs 1~4 (single-ended, unipolar)

Maximum Loop Resistance	1000 Ohms
Protection	± 32mA

General Specifications

Fiber Port	1 Gigabit SFP Slot, Accepts MSA compliant 1.25Gbps SFPs (Available separately)	
LED Indicators	Power, Fiber, Input/Outputs 1~4	
Power Input	12~48VDC (11~53V)	
	-A powering option 125VDC (42~160V)	
	Dual redundant power options - Polarity insensitive	
Power Consumption	Input Device	5 Watts Maximum
	Output Device	8 Watts Maximum
DC Input Isolation (In/Out)	1.5KV	
Overcurrent Protection	1.0A Automatic Recovery	
System Alarm	Normally Open / Closed Relay	
Temperature	Storage	-40℃ to +85℃ (-40°F to +185°F)
	Operating	-40℃ to +70℃ (-40°F to +158°F)
Dimensions	2.2" (W) x 4" (D) x 5.2" (H), (56mm x 102mm x 131mm) - not including DIN clip	
Mounting	Includes standard T-35 DIN rail clip and wall mount ears	
Humidity	95% non-condensing	
Safety	FCC Class B, CE, RoHS, UL Listed, CB Scheme	
Warranty	Lifetime - Visit www.fiberopticlink.com for warranty information and coverage details	

Ordering Information

Description	Part Number
0~10V Fiber Optic Converter, Input, 4 Channels, 1 SFP Slot, powered by 12~48VDC	FBX-010-INPUT-1
0~10V Fiber Optic Converter, Output, 4 Channels, 1 SFP Slot, powered by 12~48VDC	FBX-010-OUTPUT-1

- A complete system requires one (1) input device paired with one (1) output device
- Add **-A** to the end of the part number for 130VDC powering option

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