4 Channel 4~20mA/0~10VDC + 32 Channel Contact Closure ADMAX Fiber Converter

ADMAX-XXXXX-DR-NO-1

Transmit Four Analog Signals and 32 Digital Inputs Over Fiber with High Speed and Accuracy

Introduction

This MAX System Fiber Optic Media converter transmits 4 channels of 4-20mA or 0~10VDC analog signals and 32 contact closure signals over fiber cable, and guarantees 99.8% signal conversion accuracy or better.

Compatible with most PLC's, Sensors (2, 3, or 4 wire), and other types of equipment where precise current or voltage measurements must be taken and transmitted over fiber. The high density contact closure allows for multiple alarm transportation. Each device is enclosed in a compact DIN and wall mountable housing. A complete MAX System uses a transmitter and receiver unit.

This compact and rugged system provides convenient and easy to read LEDs, supports both single-mode and multimode fiber applications, and includes an alarm on either side monitoring system power and fiber health. Designed to operate over an extreme temperature range, providing reliability in harsh environments. It is Designed, Engineered, and Assembled in the USA and is covered by our Lifetime Warranty.

4~20mA/0~10VDC System

Extends up to 4 separate analog 4-20mA current signals or 0~10VDC signals over fiber. Offers 60,000 samples per second, 16 bit signal resolution, and less than 0.2% source signal variance.

Contact Closure System

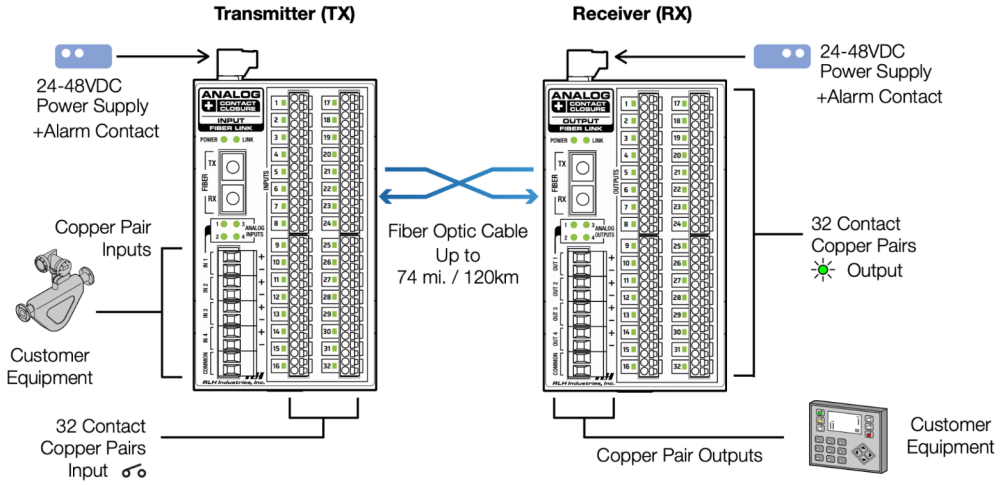
Extends up to 32 contact closure alarms over fiber to the paired devices. A solid state relay output at the receiver device provides ultra fast response times.

ADMAX Fiber Converter

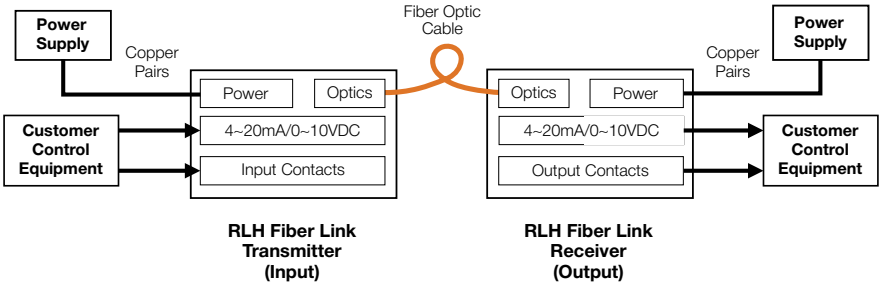
Features

- Inputs are available with Dry contact sensors or Voltage sensing (wet) inputs
- Each Input is optically isolated for maximum protection
- Output relays can be wired either normally open or normally closed
- Alarm contact for system status monitoring
- Compatible with all MSA compliant Gigabit SFP
- Convenient LED status indicators
- Hardened to operate in -40°C to +70°C (-40°F to +158°F)
- DIN rail or Wall Mount (Wall Mount ears included)
- Each output relay is rated for 60 Watts
- Redundant Power Inputs (12~48VDC)
- Designed, Engineered and Assembled in the USA
- Covered by our Lifetime Warranty

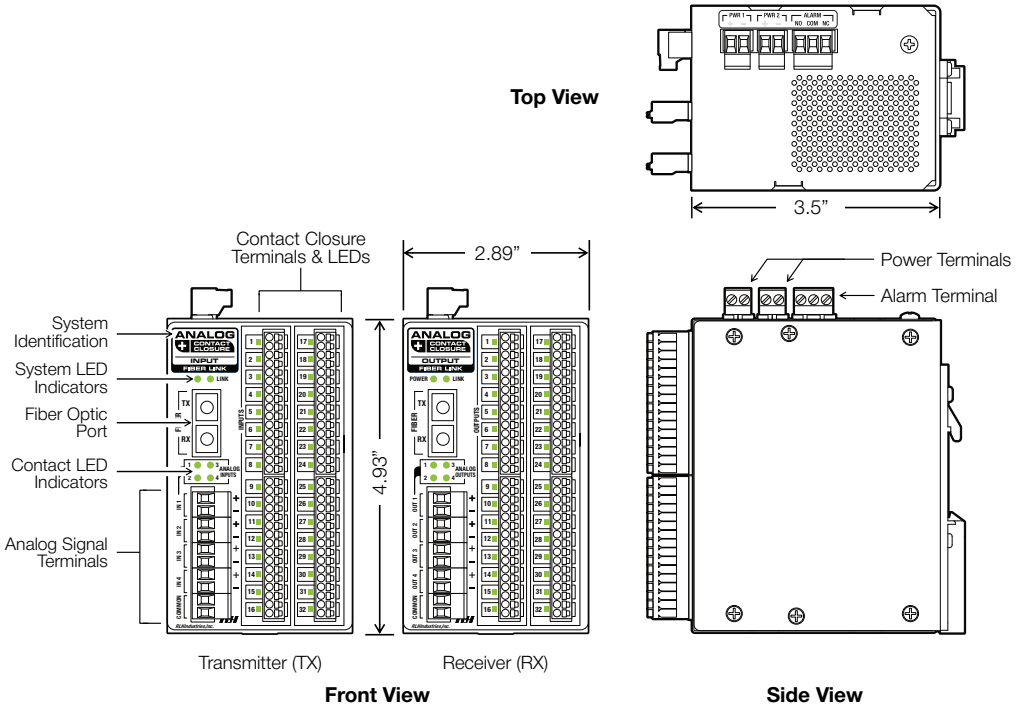
Typical System Diagram



System Diagram



Physical Layout



General Information

Fiber Connector Types:	ST or SC		
Transmission Method:	**Multimode**	1310nm	
	Single-mode	1310nm/1550nm	
Maximum Fiber Attenuation/Distance:	**Dual Fiber**	Multimode (50µm & 62.5/125µm):	1.25 mi./2 km range
		Single-mode (9/125µm):	12.4 mi./20km range
			37 mi./60km range
			74 mi./120km range
	Single Fiber, Bi-directional	Single-mode (9/125µm):	12.4 mi./20km range
			37 mi./60km range
	Note: *Distances equated using industry standard fiber and connector attenuation. Fiber condition, splices, and connectors may affect actual range*		
System accuracy:	**0~10VDC/4~20mA Analog**	99.8% analog signal conversion accuracy	
	Note: *Accuracy is for complete Fiber Link System, both Transmitter & Receiver at 25C° and powered by 24VDC*		
	Ambient Temp Effect	Approximately 0.4% over operational range	
	Update Rate	16.6µs (60,000 updates per second)	
	Signal Resolution	16 Bits	
	Sensitivity	2^16 (65,536) Steps	
Analog Signal:		**0~10VDC System**	**4~20mA**
Analog Input 1~4:	Differential Inputs		
	Operating Range	0~11VDC	4~22mA
	Impedance	200K Ohms	250 Ohms
	Protection	+/- 30V	+/- 50mA
Analog Output 1~4:	Single-ended (unipolar)		
	Loop Voltage:	N/A	23.7VDC
	Maximum Loop Resistance:	1000 Ohms	1000 Ohms
	Protection:	+/- 32mA	+/- 32mA
Contact IO:	16 channels Bidirectional contact closure		
	Inputs	DR: Dry Contact Sensing	
		12: Wetting voltage (5~12VDC) Sensing	
		48: Wetting voltage (24~48VDC) Sensing	
	Output	NO: Normally Open Relay	
		NC: Normally Closed Relay	
		Rating: 2A @ 60VDC (Maximum)	
Power Requirements:	24~48VDC	Transmitter - 8 Watts Max.	
	Dual redundant power options	Receiver - 10 Watts Max.	
Wire Connector:	Screw clamp terminal blocks, 16~26 AWG		
DC Input Isolation (In/Out):	1.5KV		
Surge Protection:	PTC Thermistors, zener diodes and varistors		
Over Current Protection:	0.5A (Automatic recovery)		
Operating Temperature:	-40°C to +70°C (-40°F to +158°F), 95% non-condensing		
Dimensions:	4.93"(H) x 2.89"(W) x 3.5"(D) (125mm x 73mm x 89mm) - Not including connectors		
Warranty:	Lifetime - Visit www.fiberopticlink.com for warranty information and coverage details		

Ordering Information

Mode	Connector	Fibers	Distance	Description	System Part Numbers 0~10VDC	System Part Numbers 4~20mA
Multimode	SC	Dual Fiber	2km/1.2mi	Transmitter	**ADMAX-010TX-DR-NO-03-1**	**ADMAX-420TX-DR-NO-03-1**
				Receiver	**ADMAX-010RX-DR-NO-03-1**	**ADMAX-420RX-DR-NO-03-1**
	ST	Dual Fiber	2km/1.2mi	Transmitter	**ADMAX-010TX-DR-NO-04-1**	**ADMAX-420TX-DR-NO-04-1**
				Receiver	**ADMAX-010RX-DR-NO-04-1**	**ADMAX-420RX-DR-NO-04-1**
Single-mode	SC	Dual Fiber	20km/12.4 mi.	Transmitter	**ADMAX-010TX-DR-NO-40-1**	**ADMAX-420TX-DR-NO-40-1**
				Receiver	**ADMAX-010RX-DR-NO-40-1**	**ADMAX-420RX-DR-NO-40-1**
			60km/37 mi.	Transmitter	**ADMAX-010TX-DR-NO-41-1**	**ADMAX-420TX-DR-NO-41-1**
				Receiver	**ADMAX-010RX-DR-NO-41-1**	**ADMAX-420RX-DR-NO-41-1**
			120km/74 mi.	Transmitter	**ADMAX-010TX-DR-NO-45-1**	**ADMAX-420TX-DR-NO-45-1**
				Receiver	**ADMAX-010RX-DR-NO-45-1**	**ADMAX-420RX-DR-NO-45-1**
	ST	Dual Fiber	20km/12.4 mi.	Transmitter	**ADMAX-010TX-DR-NO-50-1**	**ADMAX-420TX-DR-NO-50-1**
				Receiver	**ADMAX-010RX-DR-NO-50-1**	**ADMAX-420RX-DR-NO-50-1**
			60km/37 mi.	Transmitter	**ADMAX-010TX-DR-NO-51-1**	**ADMAX-420TX-DR-NO-51-1**
				Receiver	**ADMAX-010RX-DR-NO-51-1**	**ADMAX-420RX-DR-NO-51-1**
			120km/74 mi.	Transmitter	**ADMAX-010TX-DR-NO-55-1**	**ADMAX-420TX-DR-NO-55-1**
				Receiver	**ADMAX-010RX-DR-NO-55-1**	**ADMAX-420RX-DR-NO-55-1**
	SC	Single Fiber	20km/12.4 mi.	Side A	**ADMAX-010TX-DR-NO-10-1**	**ADMAX-420TX-DR-NO-10-1**
				Side B	**ADMAX-010RX-DR-NO-11-1**	**ADMAX-420RX-DR-NO-11-1**
			60km/37 mi.	Side A	**ADMAX-010TX-DR-NO-14-1**	**ADMAX-420TX-DR-NO-14-1**
				Side B	**ADMAX-010RX-DR-NO-15-1**	**ADMAX-420RX-DR-NO-15-1**

- A complete system requires both a **Transmitter** unit and a **Receiver** unit
- Digital Inputs can be ordered as 5-12 VDC voltage sensing by replacing **DR** with **12**, contact Sales for availability and pricing
- Digital Inputs can be ordered as 24-48 VDC voltage sensing by replacing **DR** with **48**, contact Sales for availability and pricing
- Relay Outputs can be ordered normally closed by replacing **NO** with **NC**, contact Sales for availability and pricing
- For Single Fiber Systems, the Transmitter is **Side A** (T-1310/R-1550) and the Receiver is **Side B** (T-1550/R-1310)
- Please contact your RLH sales representative for pricing and delivery information

Contact

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