fiberopticlink.com



FBX-CC-BIDI-XX-1

DS-158 2025-0904

## 4 Channel Bi-Directional Contact **Closure Fiber Optic Converter**

### Transmit 4 Contact Closure Signals in Both Directions **Over Fiber With Maximum Reliability**

The RLH 4 Channel Bi-Directional Contact Closure Fiber Optic Converter transmits contact closure signals in both directions over fiber cable. Applications include alarm event triggering, building automation, environmental control systems, fire & alarm systems, gate control, traffic signal control equipment, and more.

The Contact Closure Inputs will either sense a dry contact closure or a wetting DC voltage signal depending on the model. The output relays have both normally closed and normally open terminals available for each relay. Each unit features an NC/NO system alarm contact for system monitoring, and convenient LED indicators to view system status.

This hardened, rugged system is designed for standard T35 DIN rail or wall mount applications. The Contact Closure Fiber Optic Converter is designed, engineered and assembled in the USA. It is covered by our Lifetime Warranty.



4 Channel Bi-Directional Contact Closure Fiber Optic Converter













### **Features**

### System

- Inputs are available with Dry contact sensors or Voltage sensing
- 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

### Application

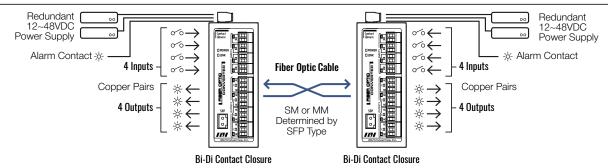
### **Environment**

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

### Power

- 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





# **System Specifications**

	Model: FBX-CC-BIDI-DR-1	Dry (0-100 ohms) contact closure
Inputs 1~4:	Model: FBX-CC-BIDI-05-1	Wet 5V (3.3~10VDC / 5mA)
	Model: FBX-CC-BIDI-24-1	Wet 12/24V (8~27VDC / 5mA)
	Model: FBX-CC-BIDI-48-1	Wet 24/48V (20~52VDC / 5mA)
	Optical Isolation	3.5kV
Outputs 1~4:	Relay Type	Mechanical, SPDT Relay, Form C
	Max. Power	60W / 125VA
	Max. Voltage	220VDC / 250VAC
	Max. Current	2A AC/DC
System Response Time:	5ms typical, 10ms maximum	

# **General Specifications**

Fiber Port:	1 Gigabit SFP Slot, Accepts MSA compliant 1.25Gbps SFPs (Sold separately)			
LED Indicators:	Power, Fiber, Input/Outputs 1~4			
	Standard Model 12~48VDC (11~53V)			
Power Input:	-A powering option 125VDC (42~160V)			
	Dual redundant power options - Polarity insensitive			
Power Consumption:	8 Watts Maximum			
DC Input Isolation (In/Out):	1.5KV			
Overcurrent Protection:	1.0A Automatic Recovery			
System Alarm:	Normally Open / Closed Relay			
Tomporatura	Storage -40°C to +85°C (-40°F to +185°F)			
Temperature:	Operating -40°C to +70°C (-40°F to +158°F)			
Humidity:	95% non-condensing			
Weight:	1.6 lbs. (0.73kg)			
Mounting:	Includes standard T-35 DIN rail clip and wall mount ears			
Dimensions:	(W) 2.2" x (D) 4" x (H) 5.2", (56mm x 102mm x 131mm) *Not including DIN clip			
Compliance:	NDAA, TAA, FCC Class A, CE, RoHS and Reach			
Warranty:	Lifetime - Visit www.fiberopticlink.com for warranty information and coverage details			



## **RLH Certified Transceivers**

Description	Mode	Conn.	Distance	Fibers	Wavelength	Part Number
Multimode, LC, 550m/1804 feet, Dual Fiber, 850nm	MM	LC	550m/1804 feet	Dual Fiber	850nm	SFP-1G-03-2
Multimode, LC, 2km/1.2 miles, Dual Fiber, 1310nm	MM	LC	2km/1.2 miles	Dual Fiber	1310nm	SFP-1G-04-2
Singlemode, LC, 20km/12.4 miles, Dual Fiber, 1310nm	SM	LC	20km/12.4 miles	Dual Fiber	1310nm	SFP-1G-30-2
Singlemode, LC, 60km/37 miles, Dual Fiber, 1550nm	SM	LC	60km/37 miles	Dual Fiber	1550nm	SFP-1G-31-2
Singlemode, LC, 120km/74 miles, Dual Fiber, 1550nm, with Digital Diagnostic Monitoring	SM	LC	120km/74 miles	Dual Fiber	1550nm	SFPD-1G-34-2
Singlemode, LC, 20km/12.4 miles, Single Fiber – Side A, Tx1310/Rx1550	SM	LC	20km/12.4 miles	Single Fiber Side A	T-1310/ R-1550	SFP-1G-20-2
Singlemode, LC, 20km/12.4 miles, Single Fiber – Side B, Rx1310/Tx1550	SM	LC	20km/12.4 miles	Single Fiber Side B	T-1310/ R-1550	SFP-1G-21-2
Singlemode, LC, 60km/37 miles, Single Fiber – Side A, Tx1310/Rx1550, with Digital Diagnostic Monitoring	SM	LC	60km/37 miles	Single Fiber Side A	T-1310/ R-1550	SFPD-1G-24-2
Singlemode, LC, 60km/37 miles, Single Fiber – Side B, Rx1310/Tx1550, with Digital Diagnostic Monitoring	SM	LC	60km/37 miles	Single Fiber Side B	T-1310/ R-1550	SFPD-1G-25-2

<sup>•</sup> Single fiber (bi-directional) SFP transceivers must always be paired, side A and side B

## **Ordering Information**

Description	Part Number
4 Channel Bi-Directional Contact Closure Fiber Optic Converter, Dry Contact Inputs, 1 SFP Slot, Powered by 12~48VDC	FBX-CC-BIDI-DR-1
4 Channel Bi-Directional Contact Closure Fiber Optic Converter, 5VDC Wet Inputs, 1 SFP Slot, Powered by 12~48VDC	FBX-CC-BIDI-05-1
4 Channel Bi-Directional Contact Closure Fiber Optic Converter, 12-24VDC Wet Inputs, 1 SFP Slot, Powered by 12~48VDC	FBX-CC-BIDI-24-1
4 Channel Bi-Directional Contact Closure Fiber Optic Converter, 24-48VDC Wet Inputs, 1 SFP Slot, Powered by 12~48VDC	FBX-CC-BIDI-48-1

- A complete system requires **TWO** units
- Add -A to the end of the part number for 125VDC powering option

## **Contact**

By Mail:	ATTN: Sa	lles		
	RLH Industries, Inc. 936 N. Main Street Orange, CA 92867			
By Phone:	Local	714-532-1672		
Sales/Service	Toll Free	800-877-1672		
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By Fax:	714-532-1885			

## **Support**

By Email:	support@fiberopticlink.com		
By Phone:	Toll Free	855-754-2497	
		855-RLH-24X7	