

2 Channel POTS with I/O DIN Fiber Link System

The RLH 2 Channel Plain Old Telephone Service (POTS) DIN Fiber Link system transports two analog phone lines over fiber optic cable. Each unit also features bi-directional contact closure for remote relay transportation. The system will operate over a wide temperature range and has been designed to provide reliability in harsh environments.

Common applications include extending analog lines over fiber for the benefit of electrical isolation, to achieve long distances, or through noisy environments to reduce EMI. The system is compatible with all traditional analog phone services, dial-up modems, meters, and fax machines.

A comprehensive set of LED's on the front panel indicate the status of the power, fiber, phone lines, and contact closure. The standard system powering requirement is 24-48VDC, with an optional 125VDC available. This rugged system features dual redundant power inputs with a system alarm contact relay, and comes standard with DIN clip and wall mount ears. RLH Fiber Link systems are designed and Made in the USA, and are covered by our Limited Lifetime Warranty.



2 Channel POTS with I/O DIN Fiber Link System

Key Features

Environment

Hardened to operate in -40°C to +70°C environment

Power

Redundant power capable, 24-56VDC or 125VDC depending on model

Application

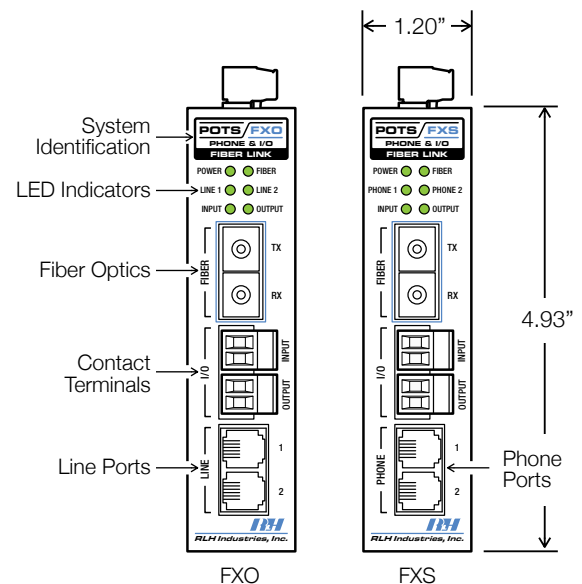
Available with ST or SC connectors for single-mode or multimode fiber
Supports Caller ID
Supports Call-Forward Disconnect (Hook Flash)
Ringdown Function (FXS to FXS Hotline Phone)
Bi-Directional Contact Closure

Compatibility

Standard 2 wire analog phone lines, dial-up modems, and fax machines

Quality

Made in the USA and covered by our Limited Lifetime Warranty



Feature & Dimensional Information

General Specifications

Fiber Connector Options	ST or SC				
Wavelength	Multimode	1310nm			
	Single-mode	1310nm/1550nm			
Maximum Fiber Attenuation / Distance*	Dual Fiber	Multimode (50/125µm & 62.5/125µm):	1.25mi./2 km range		
		Single-mode (9/125µm):	12.4 mi./20km range	37 mi./60km range	
	Single Fiber, Bi-directional	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>					
Phone Connectors	(2) RJ-11 Female				
Audio Bandwidth	300Hz to 3400Hz				
Analog Phone (POTS) Interface	FXO Device	Impedance	600 ohms		
		Ring Frequency	Acceptable 20 ~50Hz		
	FXS Device	Impedance	600 ohms		
		Dial	DTMF and Pulse		
		Battery Source	48VDC ± 4V		
		Ring Voltage	80Vrms at 20Hz (Depending on the ringing load)		
		REN	REN 3.0 (Ring Equivalence Number)		
	*REN value is per channel.				
Ringing Waveform	Sine wave				
Ring Cadence	FXS to FXS	On → 2 sec, Off → 4 sec			
	FXO to FXS	Reproduces the cadence detected by FXO			
Return Loss	40dB				
Supports	Caller ID & Call Forward Disconnect				
Bi-Directional Contact Closure (I/O)	Inputs	Dry contact (1-100 ohms)			
	Outputs	Relay - Normally Open			
		Relay Max. Rating	125VAC	0.5A	62.5VA
		30VDC	2.0A	60 Watts	
Relay Response Time	20ms				
LED Indicators	Power, Fiber, Phone or Line 1~2, Input, Output (See <i>User Guide</i> for more details)				
Power Input	24~48VDC or 125VDC nominal (Depending on model)				
	Dual redundant power inputs				
Power Consumption	FXO Device	2.5 Watts			
	FXS Device	5 Watts			
System Alarm Output	Normally Open / Closed Relay				
	Alarm condition triggered by:	Loss of Power input to the device Loss of fiber signal from the distant device			
DC Input Isolation (In/Out)	1.5KV				
Voltage Reversal Protection	Will operate with V+ or V- in either power terminal				
Over Current Protection	1.0A (Automatic Recovery)				
Temperature	Storage	-40°C to +85°C (-40°F to +185°F)			
	Operating	-40°C to +70°C			
Dimensions	H 4.93" x W 1.20" x D 3.93" (not including DIN clip)				
Mounting	Includes standard T-35 DIN rail clip and wall mount ears				
Humidity	95% non-condensing				
Warranty	Limited Lifetime	Visit www.fiberopticlink.com for warranty details			

Ordering Information

Each 2 Channel POTS with I/O Fiber Link device is identified with a part number.

Optics	Distance	Fiber	Side	Type	Part Number
Multimode SC	2.4km / 1.5 mi.	62.5/50µm	-	FXO	PD-2FXO-IO-03-1
				FXS	PD-2FXS-IO-03-1
Multimode ST	2.4km / 1.5 mi.	62.5/50µm	-	FXO	PD-2FXO-IO-04-1
				FXS	PD-2FXS-IO-04-1
Single-mode SC (Single Fiber)	20km / 12.4 mi.	8-9µm	A	FXO	PD-2FXO-IO-10-1
			B	FXS	PD-2FXS-IO-11-1
	60km / 37 mi.	8-9µm	A	FXO	PD-2FXO-IO-14-1
			B	FXS	PD-2FXS-IO-15-1
Single-mode SC	20km / 12.4 mi.	8-9µm	-	FXO	PD-2FXO-IO-40-1
				FXS	PD-2FXS-IO-40-1
	60km / 37 mi.	8-9µm	-	FXO	PD-2FXO-IO-41-1
				FXS	PD-2FXS-IO-41-1
	120km / 74 mi.	8-9µm	-	FXO	PD-2FXO-IO-45-1
				FXS	PD-2FXS-IO-45-1
Single-mode ST	20km / 12.4 mi.	8-9µm	-	FXO	PD-2FXO-IO-50-1
				FXS	PD-2FXS-IO-50-1
	60km / 37 mi.	8-9µm	-	FXO	PD-2FXO-IO-51-1
				FXS	PD-2FXS-IO-51-1
	120km / 74 mi.	8-9µm	-	FXO	PD-2FXO-IO-55-1
				FXS	PD-2FXS-IO-55-1

- ▶ A complete system requires 2 devices of either configuration:
 - One (1) **FXO** device paired with one (1) **FXS** device for a typical phone line extension, or
 - Two (2) **FXS** devices paired for a ringdown hotline.
- ▶ Bi-directional single fiber models require an **A** Side and **B** Side unit for a complete system.
- ▶ Add **-A** to the end of the part number for 125VDC input power option.
- ▶ Please contact your RLH sales representative for pricing and delivery information.



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Specifications subject to change without notice.