RLH Industries, Inc.

fiberopticlink.com

#### PRODUCT DATA SHEET

DS-081 2025-0528

ETH-42-XX-1

# 4+2 Fiber Switch

### Industrial, Rugged, & Compact

RLH industrial switches are engineered to provide reliable network performance in harsh environments. The 4+2 Fiber switch provides both copper and fiber Ethernet access. It is environmentally hardened to operate in a wide temperature range, which is the standard for RLH equipment.

Our industrial switches robust features and construction meet the demands of a variety of applications, and are an ideal solution for a wide range of utility and automation environments.

#### Features

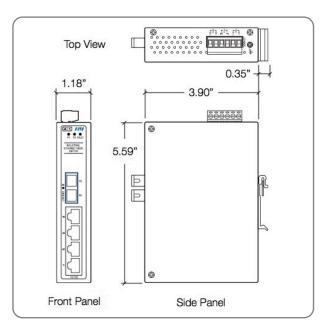
- 4 Fast Ethernet ports
- 2 Fiber 100BaseFX ports
- Wide operating temperature range of -40°C to +75°C (-40°F to +167°F)
- 12-48VDC Dual redundant power inputs
- Power fault alarm relay
- Rugged IP30 housing, DIN rail & wall mountable
- UL, CE, and FCC certification
- TAA and NDAA compliant
- NEMA TS2 (ITS) compliant
- Hazardous Location UL Class 1/Div.2 certified
- 5 Year Warranty





Industrial 4+1 Fiber Switch

#### Dimensions





### Specifications

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Data Process:	Store and Forward, CSMA/0	CD				
Standards:	IEEE 802.3 10Base-T (Ethernet) IEEE 802.3u 100Base-TX (Fast Ethernet) IEEE 100BaseFX Ethernet over Fiber					
Transfer Rates:	14,880pps for Ethernet port					
	148,800pps for Fast Ethernet port					
Transmission Distance:	Up to 100 Meters over twisted pair					
Transmission Speed:	Up to 100Mbps					
MAC Address:	8K table size					
Fiber Specifications:	Fiber Type	Mode	Fiber Diameter	Connector Type	Distance	
	Single Fiber Bi-Directional	Singlemode	9/125 µm	SC	20km / 12.4miles 60km / 36 miles	
	Dual Fiber	Multimode	62.5/125 50/125 μm	ST/SC	2km / 1.2 miles	
		Singlemode	9/125 µm	ST/SC	20km / 12.4 miles 60km / 36 miles 120km / 74 miles	
	<b>Note:</b> Distances equated using industry standard fiber and connector attenuation of 3dB/Km. Fiber condition splices and connectors may affect actual range.					
Ethernet Interface:	Auto MDI/MDI-X, Auto-Negotiation					
Ethernet Ports:	(4) 10/100 Mbps					
	(2) Fiber 100BaseFX					
LED Status Indicators:	Power 1 (P1), Power 2 (P2), Fault					
LED Status mulcators.	Ethernet Ports (Link and Activity)					
Power Protection:	Over Current, Power Reversal, Polarity Protection					
Power Input:	12~48VDC redundant power inputs (6 position pluggable terminal block)					
-	12~48VDC redundant powe	er inputs (6 positi	ion pluggable termir	nal block)		
Max Power Consumption:	12~48VDC redundant powe 7 Watts	er inputs (6 positi	on pluggable termir	nal block)		
•	· ·		on pluggable termir	nal block)		
Max Power Consumption:	7 Watts	/DC @ 1 Amp	on pluggable termir	nal block)		
Max Power Consumption: Fault Output:	7 Watts 1 Relay output rated for 24	/DC @ 1 Amp /°F)	ion pluggable termir	nal block)		
Max Power Consumption: Fault Output: Operating Temperature: Storage Temperature:	7 Watts 1 Relay output rated for 24 -40°C to 75°C (-40°F to 167	/DC @ 1 Amp /°F) ;°F)	ion pluggable termir	nal block)		
Max Power Consumption: Fault Output: Operating Temperature: Storage Temperature:	7 Watts 1 Relay output rated for 24 -40°C to 75°C (-40°F to 167 -40°C to 85°C (-40°F to 185	/DC @ 1 Amp ?°F) ng)	ion pluggable termir	nal block)		
Max Power Consumption: Fault Output: Operating Temperature: Storage Temperature: Operating Humidity:	7 Watts 1 Relay output rated for 24V -40°C to 75°C (-40°F to 167 -40°C to 85°C (-40°F to 185 5% to 95% (Non-Condensin	/DC @ 1 Amp /°F) s°F) ng) ousing			rs or DIN bracket	
Max Power Consumption: Fault Output: Operating Temperature: Storage Temperature: Operating Humidity: Construction:	7 Watts 1 Relay output rated for 24V -40°C to 75°C (-40°F to 167 -40°C to 85°C (-40°F to 185 5% to 95% (Non-Condensin Powder coated IP30 steel h	/DC @ 1 Amp ?°F) is°F) iousing " (H), (30mm x 99)	9mm x 142mm) *No	t including connecto	rs or DIN bracket	
Max Power Consumption: Fault Output: Operating Temperature: Storage Temperature: Operating Humidity: Construction: Case Dimensions:	7 Watts 1 Relay output rated for 24W -40°C to 75°C (-40°F to 167 -40°C to 85°C (-40°F to 185 5% to 95% (Non-Condensin Powder coated IP30 steel h 1.18" (W) x 3.90" (D) x 5.59"	/DC @ 1 Amp ?°F) iousing " (H), (30mm x 99 r wall mount *Wa	9mm x 142mm) *No Ill mount brackets in	t including connecto		
Max Power Consumption: Fault Output: Operating Temperature: Storage Temperature: Operating Humidity: Construction: Case Dimensions: Installation:	7 Watts 1 Relay output rated for 24V -40°C to 75°C (-40°F to 167 -40°C to 85°C (-40°F to 185 5% to 95% (Non-Condensin Powder coated IP30 steel h 1.18" (W) x 3.90" (D) x 5.59" Standard DIN rail (TS-35) or	/DC @ 1 Amp 7°F) 5°F) ousing " (H), (30mm x 99 r wall mount *Wa 4-2/3/4/5/6/8/11	9mm x 142mm) *No Ill mount brackets in I/12, CE EN61000-6	t including connecto icluded i-2, CE EN61000-6-4		
Max Power Consumption: Fault Output: Operating Temperature: Storage Temperature: Operating Humidity: Construction: Case Dimensions: Installation: EMI:	7 Watts 1 Relay output rated for 24V -40°C to 75°C (-40°F to 167 -40°C to 85°C (-40°F to 185 5% to 95% (Non-Condensit Powder coated IP30 steel h 1.18" (W) x 3.90" (D) x 5.59" Standard DIN rail (TS-35) or FCC Class A, CE EN61000-	/DC @ 1 Amp ?°F) iousing " (H), (30mm x 99 r wall mount *Wa -4-2/3/4/5/6/8/11 EC60068-2-27 (S	9mm x 142mm) *No Ill mount brackets in I/12, CE EN61000-6 Shock), IEC60068-2-	t including connecto icluded i-2, CE EN61000-6-4 6 (Vibration)		
Max Power Consumption: Fault Output: Operating Temperature: Storage Temperature: Operating Humidity: Construction: Case Dimensions: Installation: EMI: Stability Testing:	7 Watts 1 Relay output rated for 24V -40°C to 75°C (-40°F to 167 -40°C to 85°C (-40°F to 185 5% to 95% (Non-Condensin Powder coated IP30 steel h 1.18" (W) x 3.90" (D) x 5.59" Standard DIN rail (TS-35) or FCC Class A, CE EN61000- IEC60068-2-32 (Free fall), IE	/DC @ 1 Amp /DC @ 1 Amp ?°F) iousing ?' (H), (30mm x 99 r wall mount *Wa 4-2/3/4/5/6/8/11 EC60068-2-27 (S D-1, UL 61010-2-	9mm x 142mm) *No Ill mount brackets in I/12, CE EN61000-6 Shock), IEC60068-2- -201, File Number: E	t including connecto icluded i-2, CE EN61000-6-4 6 (Vibration)		



# **Ordering Information**

Description	Connector	Fibers	Wavelength	Distance	Part Number	
Multimode ST	ST	Dual Fibers	1310nm	2km/1.2 miles	ETH-42-04-1	
	SC	Dual Fibers	1310nm	2km/1.2 miles	ETH-42-03-1	
Singlemode ST	Dual Fibers	1310nm —	20km/12.4 miles	ETH-42-50-1		
			60km/37 miles	ETH-42-51-1		
			1550nm	120km/74 miles	ETH-42-55-1	
			1310nm -	20km/12.4 miles	ETH-42-40-1	
Singlemode SC	Dual Fibers	13101111 -	60km/37 miles	ETH-42-42-1		
			1550nm	120km/74 miles	ETH-42-45-1	
Cinglemede	Singlemode SC	Single Fiber - Side A	T-1310/R-1550	20km/12.4 miles	ETH-42-10-1	
Singlemode		Single Fiber - Side B	R-1310/T-1550	20km/12.4 miles	ETH-42-11-1	
	80	Single Fiber - Side A	T-1310/R-1550	60km/37 miles	ETH-42-14-1	
Singlemode	emode SC		Single Fiber - Side B	R-1310/T-1550	60km/37 miles	ETH-42-15-1

• Single fiber (bi-directional) systems must always be paired, side A and side B

• Please contact your RLH sales representative for pricing and delivery information

### Contact

By Mail:	ATTN: Sales		
	RLH Industries, Inc. 936 N. Main Street Orange, CA 92867		
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