

DATA SHEET

4+1 Fiber PoE+ Switch

Industrial PoE+ Fiber Switch

RLH industrial switches are engineered to provide reliable network performance in demanding environments. The 4+1 Fiber PoE+ switch provides four Ethernet ports providing PoE+ power to networked equipment and one fiber port. It is environmentally hardened to operate in a wide temperature range, which is the standard for RLH equipment.

The PoE+ ports provide up to 30 Watts of power to end devices following the IEEE 802.3af/at standard. The unique Flex Power feature allows the device to maintain a consistent PoE+ voltage to end devices regardless of the DC powering voltage provided.

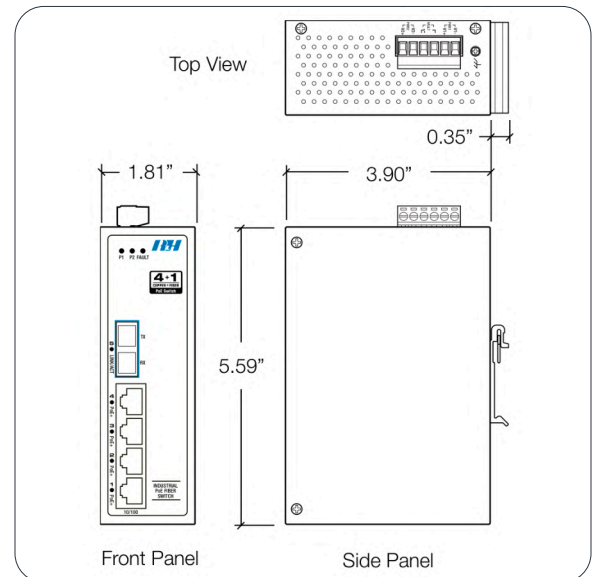
Our industrial switches robust construction and features meet the demands of a variety of applications, and are an ideal solution for a wide range of utility and automation environments.



4+1 Fiber PoE+ Switch

Key Features

- Hardened design has a wide operating temperature range -40°F to +167°F (-40°C to +75°C)
- Flex Power – Constant 48VDC PoE+ power (at low input voltages)
- 1 Fiber 100BaseFX port
- Multimode and single-mode fiber, ST or SC connectors
- Extend Ethernet over fiber, up to 74 miles (120km)
- 4 PoE+ ports with up to 30 watts per port
- IEEE 802.3af/at Power Over Ethernet
- PoE Mode A (End Span)
- Auto MDI/MDI-X
- 12-36VDC redundant power inputs with built-in alarm
- 2kV surge protection
- DIN rail & wall mountable
- UL Listed



Dimensions

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Key Specifications

Data Process:	Store & Forward, CSMA/CD			
Standards:	IEEE 802.3 10BaseT Ethernet	IEEE 802.3u 100BaseTX Fast Ethernet		
	IEEE 802.3af/at Power over Ethernet	IEEE 100BaseFX		
Transfer Rates:	14,880pps - Ethernet port, 148,800pps - Fast Ethernet port			
Transmission Distance:	Up to 100 Meters over twisted pair			
Transmission Speed:	Up to 100Mbps			
MAC Address:	8K table size			
Fiber:	multimode:	62.5/125, 50/125 μm		
	singlemode:	9/125 μm		
Fiber Type / Connector / Distance:	Single Fiber (bi-directional):	singlemode	SC	20km / 12.4 miles 60km / 36 miles
	Dual Fiber:	multimode	ST/SC	2km / 1.2 miles
		singlemode	ST/SC	20km / 12.4 miles 60km / 36 miles 120km / 74 miles
	Note: 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 PoE+, (1) Fiber 100BaseFX			
PoE Power:	30 Watts (Mode A / End Span)			
Flex Power:	Constant 48VDC PoE+ power throughout input voltage range			
PoE Pin Assignment:	Positive (VCC+) – Pins 1, 2; Negative (VCC-) – Pins 3, 6; Data – Pins 1, 2, 3, 6			
LED Status Indicators:	Power 1 (P1), Power 2 (P2), Fault Ethernet Ports (Link and Activity), PoE+ (On and Off)			
Power Protection:	Over Current, Power Reversal, Polarity Protection			
Power Input:	12~36VDC redundant power inputs (6 position pluggable terminal block)			
Max Power Consumption:	145 Watts (assuming full PoE load)			
Fault Output:	1 Relay output rated for 24VDC @ 1 Amp			
Operating Temperature:	-40°F to 167°F (-40°C to 75°C)			
Storage Temperature:	-40°F to 185°F (-40°C to 85°C)			
Operating Humidity:	5% to 95% (Non-Condensing)			

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Key Specifications (cont'd)

Construction:	Powder coated IP30 steel housing
Case Dimensions:	1.81" (W) x 3.90" (D) x 5.59" (H), (46mm x 99mm x 142mm) *Not including connectors or DIN bracket
Installation:	Standard DIN rail (TS-35) or wall mount *Wall mount brackets included
EMI:	FCC Class A, CE EN61000-4-2/3/4/5/6/8/11/12, CE EN61000-6-2, CE EN61000-6-4
Stability Testing:	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
Safety:	CE, FCC Class A, UL 508 File Number: E480850
Warranty:	5 Years

Ordering Information

Mode	Connector	Distance	Fibers	Wavelength	Part Number
Multimode	ST	2km/1.2 miles	Dual Fiber	1310nm	ETH-41P-04-1
Multimode	SC	2km/1.2 miles	Dual Fiber	1310nm	ETH-41P-03-1
Singlemode	ST	20km/12.4 miles	Dual Fiber	1310nm	ETH-41P-50-1
Singlemode	ST	60km/37 miles	Dual Fiber	1310nm	ETH-41P-51-1
Singlemode	ST	120km/74 miles	Dual Fiber	1550nm	ETH-41P-55-1
Singlemode	SC	20km/12.4 miles	Dual Fiber	1310nm	ETH-41P-40-1
Singlemode	SC	60km/37 miles	Dual Fiber	1310nm	ETH-41P-41-1
Singlemode	SC	120km/74 miles	Dual Fiber	1550nm	ETH-41P-45-1
Singlemode	SC	20km/12.4 miles	Single Fiber – Side A	T-1310/R-1550	ETH-41P-10-1
Singlemode	SC	20km/12.4 miles	Single Fiber – Side B	R-1310/T-1550	ETH-41P-11-1
Singlemode	SC	60km/37 miles	Single Fiber – Side A	T-1310/R-1550	ETH-41P-14-1
Singlemode	SC	60km/37 miles	Single Fiber – Side B	R-1310/T-1550	ETH-41P-15-1

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

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