



4+1 Fiber PoE+ Switch

ETH-41P-XX-1

Industrial Rugged and Compact

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.

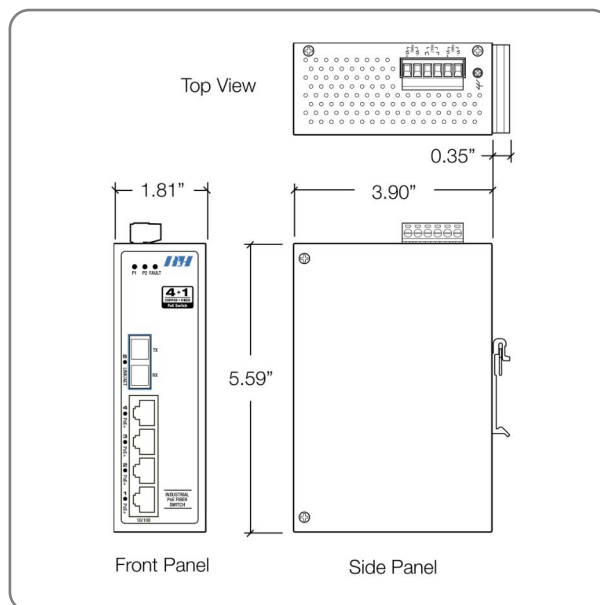
Features

- Wide operating temperature range of -40°C to +75°C (-40°F to +167°F)
- 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
- 12-55VDC redundant power inputs with built-in alarm
- 2kV surge protection
- DIN rail & wall mountable
- UL Listed



4+1 Fiber PoE+ Switch

Dimensions





Specifications

Switch Characteristics

Data Process: Store & Forward, CSMA/CD, IEEE 802.3x flow control, back pressure flow control

Standards: IEEE 802.3 10BaseT Ethernet
IEEE 802.3u 100BaseTX Fast Ethernet
IEEE 802.3af Power over Ethernet (PoE)
IEEE 802.3af Power over Ethernet Plus (PoE+)
IEEE 100BaseFX 100Mbps Fiber

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 Specifications:	Fiber Type	Mode	Fiber Diameter	Connector Type	Distance
	Single Fiber Bi-Directional	Singlemode	9/125 μ m	SC	20km / 12.4miles 60km / 36 miles
		Multimode	62.5/125 μ m 50/125 μ m	ST/SC	2km / 1.2 miles
	Dual Fiber	Single Mode	9/125 μ m	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 Speed & Duplex Negotiation

Ethernet Ports: (4) 10/100 Mbps PoE+
(2) Fiber 100BaseFX

PoE Power: 30 Watts (Mode A / End Span)

PoE Pin Assignment: Positive (VCC+) – RJ-45 Pins 1, 2
Negative (VCC-) – RJ-45 Pins 3, 6
Data: Pin 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: 48~55VDC redundant power inputs (pluggable terminal block)

Power Consumption: 130 Watts Max. (assuming full PoE load)

Fault Output: 1 Relay output rated for 24VDC @ 1 Amp

Operating Temperature: -40°C to 75°C (-40°F to 167°F)

Storage Temperature: -40°C to 85°C (-40°F to 185°F)

Operating Humidity: 5% to 95% (Non-Condensing)

Construction: Powder coated IP30 steel housing



Specifications (cont.)

Switch Characteristics	
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 Part 15 Subpart B Class A, CE EN55022 Class A, IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8 (Magnetic Field)
Stability Testing:	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
Safety:	CE, FCC Class A, UL508 File Number: E480850, UL Class 1/Div.2, ISA 12.12.01
Compliance:	NDAA, TAA, NEMA TS2 (ITS), RoHS and REACH compliant
Warranty:	5 Years Visit www.fiberopticlink.com for warranty details

Ordering Information

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

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