

4+2 Managed Fiber PoE+ Switch

INDUSTRIAL, RUGGED, & COMPACT

RLH industrial switches are engineered to provide reliable network performance in harsh environments. The 4+2 Managed Fiber PoE+ switch provides both copper and fiber Ethernet access, along with PoE+ powering capabilities. This environmentally hardened layer 3 switch is manageable and offers a wide array of configuration and monitoring options.

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 feature rich industrial switch meets the demands of a variety of applications, and are an ideal solution for a wide range of utility and automation environments.



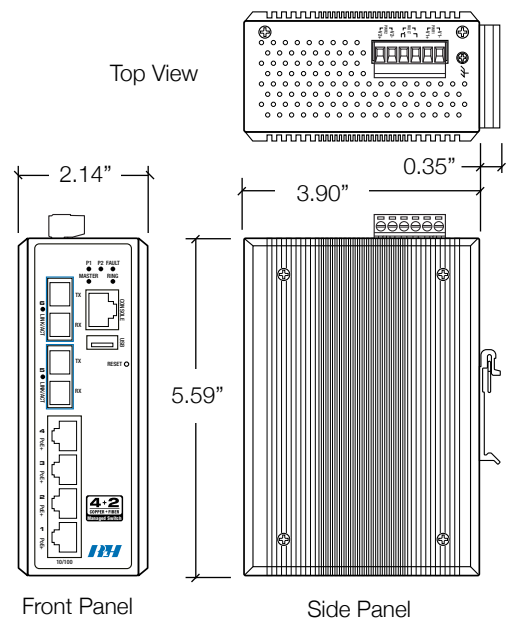
4+2 Managed Fiber PoE+ Switch

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)
- 2 Fiber 100BaseFX ports
- 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)
- 12-55VDC redundant power inputs with built-in alarm
- 2kV surge protection
- DIN rail & wall mountable

Management Features

- Layer 3 Switch
- Static Routing
- Configuration via Web, Serial, Telnet, & SSH
- Supports SNMPv3
- Supports IEEE 802.1q VLANs
- PoE Port Control & Monitoring



Dimensional Information

General Specifications

Data Process	Store & Forward, CSMA/CD			
Standards	IEEE 802.3 10BaseT Ethernet	IEEE 802.1w RSTP (Rapid Spanning Tree Protocol)		
	IEEE 802.3u 100BaseTX Fast Ethernet	IEEE 802.1s MSTP (Multiple Spanning Tree Protocol)		
	IEEE 802.3af/at Power over Ethernet	IEEE 802.1Q Virtual Local Area Network (VLAN)		
	IEEE 802.3x flow control	IEEE 802.1ad Stacked VLAN, Q-in-Q		
	IEEE 802.1d STP (Spanning Tree Protocol)	IEEE 802.1p QoS/CoS Protocol for Traffic Prioritization		
	IEEE 802.1X Network Authentication	OSI Layer 3 Switch		
	ITU-TG.8032 / Y.1344 ERPS (Ethernet Ring Protection Switch)			
Protocols	IGMP v1/v2, SNMP v1/v2c/v3, TFTP, SNMP, SMTP, RARP, Syslog, STP, RSTP			
Transfer Rate(s)	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 μ m		
	Single-mode	9/125 μ m		
Fiber Type / Connector / Distance	Single Fiber (Bi-directional)	Single-mode	SC	20km / 12.4 miles 60km / 36 miles
		Dual Fiber	Multimode	ST,SC
	Single-mode		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+ (2) Fiber 100BaseFX			
PoE Power	30 Watts (Mode A / End Span)			
Flex Power	PoE output voltage remains constant when switch is powered with less than 48VDC			
PoE Pin Assignment	Positive (VCC+): Pins 1, 2 Negative (VCC-): Pin 3, 6 Data: Pin 1, 2, 3, 6			
LED Status Indicators	Power 1 (P1), Power 2 (P2), Fault, Master, Ring Ethernet Ports (Link and Activity), PoE+ (On and Off)			
Power Protection	Over Current, Power Reversal, Polarity Protection			
Power Input	12~55VDC 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)			
Construction	Powder coated IP30 steel housing			
Case Dimension	2.14" (W) x 3.91" (D) x 5.60" (H), (55mm x 100mm x 1423mm) *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 61010-1 3rd Edition and UL 61010-2-201 1st Edition, File Number: E480850			
Warranty	Limited 5 years Visit www.fiberopticklink.com for warranty details			

Ordering Information

Each 4+2 Managed Fiber PoE+ switch is identified with a part number.

Standard Options

Optics	Distance	Wavelength	Fiber	Part Number
Multimode SC	2 km/1.2 mi	1310nm	62.5/50 μ m	ETH-42MP-03-2
Multimode ST	2 km/1.2 mi	1310nm	62.5/50 μ m	ETH-42MP-04-2
Single-mode SC	20km/12.4mi.	1310nm	8~9 μ m	ETH-42MP-40-2
Single-mode ST	20km/12.4mi.	1310nm	8~9 μ m	ETH-42MP-50-2

Extended Distance & Single Fiber Bi-directional Options

Optics	Side	Distance	Wavelength	Fiber	Part Number
Single-mode SC	-	60km / 37mi.	1310nm	8~9 μ m	ETH-42MP-41-2
	-	120km / 74 mi.	1550nm	8~9 μ m	ETH-42MP-45-2
Single-mode ST	-	60km / 37mi.	1310nm	8~9 μ m	ETH-42MP-51-2
	-	120km / 74 mi.	1550nm	8~9 μ m	ETH-42MP-55-2
Bi-Directional Single-mode SC	A	20km/12.4mi.	Tx 1310nm / Rx 1550nm	8~9 μ m	ETH-42MP-10-2
	B	20km/12.4mi.	Tx 1550nm / Rx 1310nm	8~9 μ m	ETH-42MP-11-2
	A	60km / 37mi.	Tx 1310nm / Rx 1550nm	8~9 μ m	ETH-42MP-14-2
	B	60km / 37mi.	Tx 1550nm / Rx 1310nm	8~9 μ m	ETH-42MP-15-2

- ▶ Bi-directional single fiber models require an **A** Side and **B** Side unit for a complete system.
- ▶ Please contact your RLH sales representative for pricing and delivery information.