



RLH Industries, Inc.

fiberopticklink.com

PRODUCT
DATA SHEET

DS-171 2025-0718

1+1 Slimline 10/100 Ethernet DIN Media Converter

RLH-ES2-XX-1

Compact Ethernet Over Fiber Solution

The RLH 1+1 Slimline 10/100 Ethernet Media Converter system is a hardened, DIN mountable multifunction converter that supports 10/100M Ethernet communications over fiber optic cable. Fiber optics not only provides long distance Ethernet transmission capability up to 74 miles (120km), but also provides immunity to EMI/RFI and transient surges. They are ideal for data communications near large electrical equipment or where radio interference can be an issue.

The Slimline converter is a compact unit that requires only 32mm of DIN rail space, and requires a local 12-36VDC power to operate.

Features

System

- Fully compliant with IEEE 802.3, IEEE 802.3x, and IEEE 802.3u
- RJ45 UTP port with 10/100 auto-negotiation
- MDI/MDI-X auto detection
- Power Isolation and Short Circuit Protection for Power Input
- Auto protection for Over Voltage Power Input
- Dual and Single (bi-directional) fiber models available
- Convenient LED status indicators (power, link, bandwidth)

Environment

- Hardened to operate in -40°F to +158°F (-40°C to +70°C)
- DIN rail mountable

Power

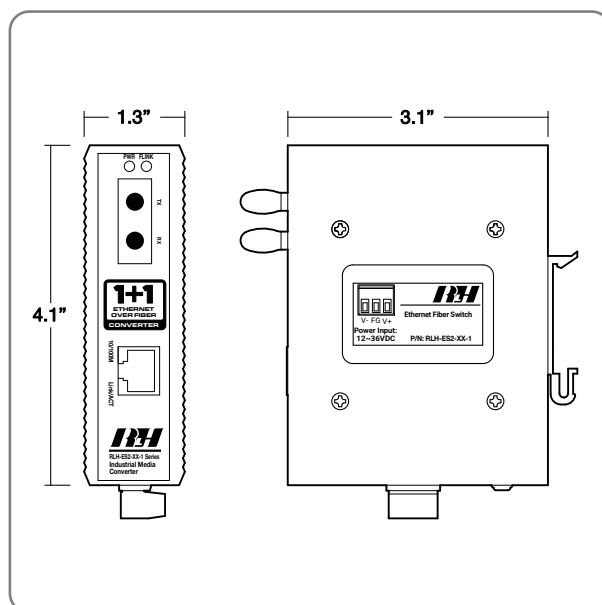
- Power Input (12~36VDC), 1A, 3W max

Quality

- Covered by our 5 Year Warranty



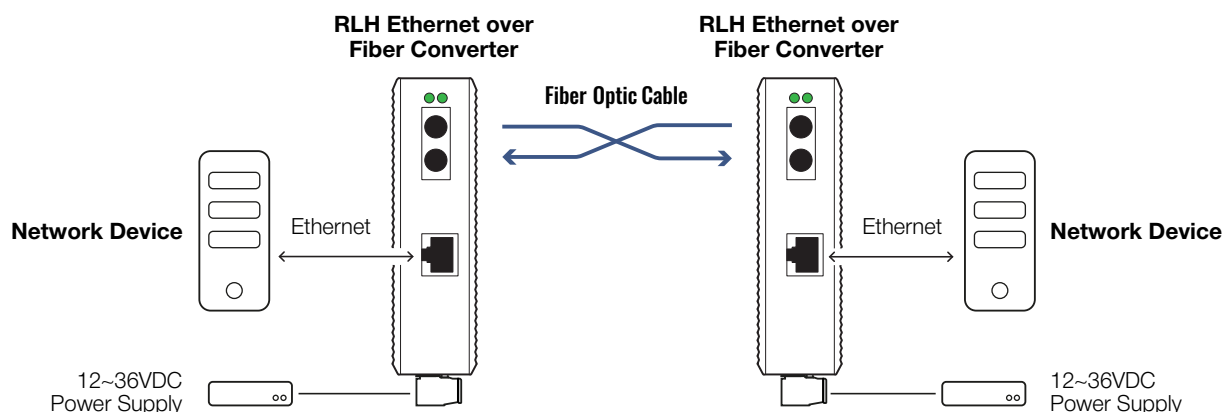
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Dimensions



Application



System Diagram

General Specifications

Standards	10Base-T, 100Base-TX, 100Base-FX				
	IEEE 802.3, IEEE 802.3x, IEEE 802.3u compliant				
Copper Connector	RJ45 UTP				
Copper Distance	100m / 328 feet				
Connector Type	SC (Multimode)				
	ST or SC (Single-mode)				
Dual Fiber Optics	Fiber Type	Multimode	Single-mode		
	Wavelength TX/RX (nm)	1310	1310	1310	1550
	Distance	2km / 1.2 mi.	20km / 12 mi.	60km / 36 mi.	120km / 74 mi.
	Min. TX PWR (dBm)	-18	-15	-6	0
	Max. TX PWR (dBm)	-10	-8	-3	+5
	RX Sensitivity (dBm)	-31	-34	-34	-34
	Link Loss Budget (dBm)	13	19	28	34
Single Fiber Optics (Bi-directional)	Fiber Type	Multimode	Single-mode		
	Wavelength (nm)	1310/1550	1310/1550		1310/1550
	Distance	2km / 1.2 mi.	20km / 12 mi.		60km / 36 mi.
	Min. TX PWR (dBm)	-17	-14		-5
	Max. TX PWR (dBm)	-10	-8		-3
	RX Sensitivity (dBm)	-31	-34		-34
	Link Loss Budget (dBm)	14	20		29
LED Indicators	PWR	System power - ON: power OK, OFF: no power			
	FLNK	Fiber port link - ON: Link OK, Blink: Port Activity, OFF: Link Fail			
	10/100M	10/100 TP port speed - ON: 100M, OFF: 10M			
	LINK/ACT	TP link - ON: Connection is OK, Blink: Port Activity, OFF: No network connection present			
Power Input	12~36VDC, 1A, 3W max., Screw-down terminal block				
Temperature	Operating	-40°C to +70°C (-40°F to +158°F)			
	Storage	-45°C to +85°C (-49°F to +185°F)			
Humidity	10~95% non-condensing				



General Specifications (continued...)

Construction	Powder coated galvanized steel, IP30 Protection
Dimensions	(H) 4.1" x (W) 1.3" x (D) 3.1" (103mm x 32mm x 78mm) not including DIN mount bracket
Mounting	Standard T-35 DIN rail mounting
Compliance	CE, FCC, RoHS, Reach
Warranty	5 Years - Visit www.fiberopticlink.com for warranty details

- Multimode bi-directional fiber optics available with SC connectors only

Ordering Information

Description	Side	Distance	Wavelength	Fiber	Part Number
Multimode ST	-	2 km/1.2 mi	1310 nm	62.5 µm	RLH-ES2-04-1
Multimode SC	-	2 km/1.2 mi	1310 nm	62.5 µm	RLH-ES2-03-1
Bi-Directional Multimode SC	A	2 km/1.2 mi	TX 1310 nm / RX 1550nm	62.5 µm	RLH-ES2-01-1
	B	2 km/1.2 mi	TX 1550 nm / RX 1310nm	62.5 µm	RLH-ES2-02-1
Single-mode ST	-	20km/12.4mi.	1310 nm	8~9 µm	RLH-ES2-50-1
	-	60km / 37mi.	1310 nm	8~9 µm	RLH-ES2-51-1
	-	120km / 74 mi.	1550 nm	8~9 µm	RLH-ES2-55-1
Single-mode SC	-	20km/12.4mi.	1310 nm	8~9 µm	RLH-ES2-40-1
	-	60km / 37mi.	1310 nm	8~9 µm	RLH-ES2-41-1
	-	120km / 74 mi.	1550 nm	8~9 µm	RLH-ES2-45-1
Bi-Directional Single-mode SC	A	20km/12.4mi.	TX 1310 nm / RX 1550nm	8~9 µm	RLH-ES2-10-1
	B	20km/12.4mi.	TX 1550 nm / RX 1310nm	8~9 µm	RLH-ES2-11-1
	A	60km / 37mi.	TX 1310 nm / RX 1550nm	8~9 µm	RLH-ES2-14-1
	B	60km / 37mi.	TX 1550 nm / RX 1310nm	8~9 µm	RLH-ES2-15-1

- Bidirectional single fiber models require a Side **A** unit and a Side **B** unit for a complete system
- Add **-A** to the end of the part number for 125VDC powering option
- Please contact your RLH sales representative for pricing and delivery information

Contact

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