



2+1 Ethernet Media Converter

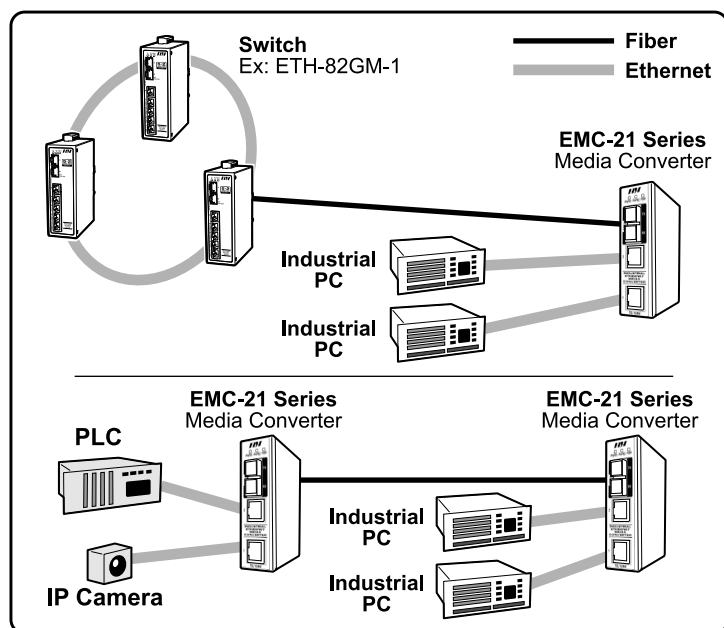
Transmit Ethernet up to 120km over Fiber

The RLH EMC-21 series is an industrial Ethernet media converter that transmits data between two 10/100Base-T(X) copper ports, and through a single 100Base-FX fiber port. The rugged IP-30 housing is designed to be either T35 DIN Rail or wall mounted, and is engineered to operate over a wide temperature range of -40°C to +70°C. It offers dual power inputs for redundant powering and is available with Multimode or Singlemode optics to satisfy the demands of most operating environments.

Features

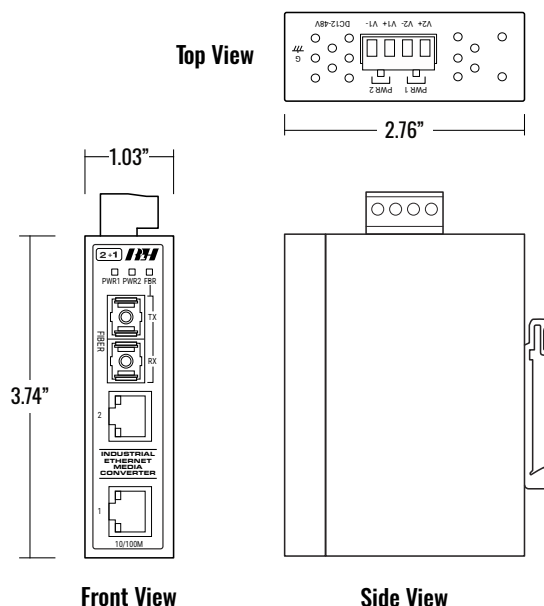
- 2 ports 10/100Base-T(X)
- Auto-negotiation and auto -MDI/MID-X
- 2x10/100 Base-T(X) ports to save the usage of copper ports
- Rugged IP-30 housing design
- DIN Rail mountable (wall mounts included)
- Hardened to operate in -40°F to +158°F (-40°C to +70°C)
- Dual 12~48VDC Power Input with redundant power terminals
- Covered by our limited 5 year warranty

Application



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Dimensional Information





General Specifications

Ethernet Standards	IEEE 802.3 10Base-T (Ethernet), IEEE 802.3u 100Base-FX (Fast Ethernet), IEEE 802.3x 100Base-TX (Flow Control)				
EMI/EMS	EMI FCC Part 15, CISPR (EN55022) class A, EMS EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11				
Stability Testing	IEC60068-2-27 (Shock), IEC60068-2-32 (Free Fall), IEC60068-2-6 (Vibration), EN60950-1 (Safety)				
Copper Connector	RJ45 UTP				
Copper Distance	100m / 328 feet				
Connector Types	ST or SC				
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	Power Indicator (PWR1/PWR2)		Green: Power LED x2		
	10/100Base-T(X) RJ45 Port Indicator		Green for port Link/Act. Amber for Duplex/Collision		
	100Base-FX Fiber Port Indicator (FBR)		Green for fiber port Link/Act		
Power Input	Dual Redundant 12~48VDC, 1A, 4.5W (typ.), 4 pin screw-down terminal block				
Dimensions	H 3.74in. x W 1.03in. x D 2.76 (H 95mm x W 26.1mm x D 70mm) not including DIN mount bracket				
Mounting	DIN Rail T35 per IEC 60715 (wall mounts included)				
Weight	.046lbs (210g)				
Temperature	Operating	-40°F to +158°F (-40°C to +70°C)			
	Storage	-40°F to +185°F (-45°C to +85°C)			
Humidity	5~95% non-condensing				
Warranty	Limited 5 years	Visit www.fiberopticlink.com for warranty details			



Ordering Information

Description	Side	Distance	Wavelength	Fiber	Part Number
Multimode ST	-	2 km/1.2 mi	1310 nm	50/62.5 µm	ETH-21-04-1
Multimode SC	-	2 km/1.2 mi	1310 nm	50/62.5 µm	ETH-21-03-1
Bi-Directional Multimode SC	A	2 km/1.2 mi	TX 1310 nm / RX 1550nm	50/62.5 µm	ETH-21-01-1
	B	2 km/1.2 mi	TX 1550 nm / RX 1310nm	50/62.5 µm	ETH-21-02-1
Single-mode ST	-	20km/12.4mi.	1310 nm	8~9 µm	ETH-21-50-1
	-	60km / 37mi.	1310 nm	8~9 µm	ETH-21-51-1
Single-mode SC	-	20km/12.4mi.	1310 nm	8~9 µm	ETH-21-40-1
	-	60km / 37mi.	1310 nm	8~9 µm	ETH-21-41-1
	-	120km / 74 mi.	1550 nm	8~9 µm	ETH-21-45-1
Bi-Directional Single-mode SC	A	20km/12.4mi.	TX 1310 nm / RX 1550nm	8~9 µm	ETH-21-10-1
	B	20km/12.4mi.	TX 1550 nm / RX 1310nm	8~9 µm	ETH-21-11-1
	A	60km / 37mi.	TX 1310 nm / RX 1550nm	8~9 µm	ETH-21-14-1
	B	60km / 37mi.	TX 1550 nm / RX 1310nm	8~9 µm	ETH-21-15-1

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