Industrial Gigabit Ethernet Media Converter

EGD-XX-4

Rugged, Compact, and Reliable
Gigabit Ethernet over Fiber Solution

The RLH Industrial Gigabit Ethernet media converter is a rugged, full featured media converter. It converts copper 10Base-T or 100/1000Base-T(X) Ethernet to fiber, and may be used to extend a copper Ethernet network up to 62 miles (100km) over fiber optic cable.

This system is designed to transport critical communications where reliability is paramount. It is environmentally hardened to operate over a wide temperature range and is standards compliant ensuring compatibility with existing network devices.

Features include link fault pass thru, auto MDI/MDI-X, auto speed and duplex negotiation, a small footprint, and mounting options including both T-35 DIN rail and wall mounting ears.
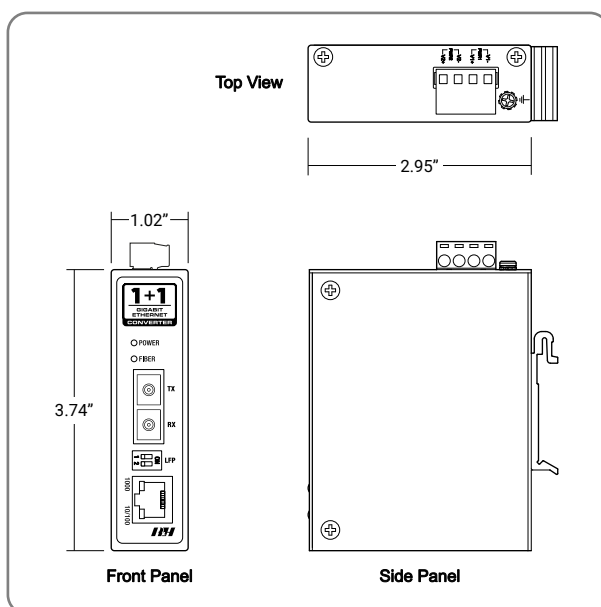
Features

- Rugged design – Extreme operating temperature rating

- Non-removable transceiver for ease of ordering and maximum operating reliability

- Available with ST or SC connectors

- Available in Single or Multimode fiber, supports fiber distances up to 100km/62 miles

- Dual and single (Bi-directional) fiber models available

- Auto negotiation for 10/100/1000 Mbps speeds on copper ethernet connections

- Link Fault Pass Through and Far End fault Detection supported

- Supports IEEE 802.1q VLAN traffic pass through

- IEEE802.3u 10/100/1000Base-Tx, 1000 Base-Fx compliant

- LED's for convenient status monitoring

- Accepts a wide range of power 12~48 VDC

- Built-in surge, static and circuit protection

- DIN rail or wall mount (Includes wall mount ears)

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Dimensions

Top View

2.95"

1.02"

3.74"

Front Panel

Side Panel

Specifications

Switch Characteristics	
Transmission Method:	Store and Forward, CSMA/CD
Standards:	**IEEE 802.3** 10BaseT (Ethernet) **IEEE 802.3u** 100BaseTX (Fast Ethernet) **IEEE 802.3ab** 1000BaseT (Gigabit Ethernet) **IEEE 802.3z** 1000Base-X (Gigabit Fiber) **IEEE 802.3x** flow control
Transfer Rates:	14,880pps - Ethernet port 148,800pps - Fast Ethernet port, 1,488,000pps - Gigabit Ethernet port
Transmission Distance:	Up to 100 Meters over twisted pair
Transmission Speed:	Up to 1000Mbps
MAC Address:	8k table size

Fiber Specifications:

Fiber Type	Mode	Fiber Diameter	Connector Type	Distance
Single Fiber Bi-Directional	Singlemode	9/125 µm	SC	20km / 12.4miles 40km/24.8 miles
Dual Fiber	Multimode	62.5/125 µm 50/125 µm	ST/SC	550m/1804 feet
	Singlemode	9/125 µm	ST/SC	20km / 12.4 miles 40km/24.8 miles 100km/62 miles

Note: Distances equated using industry standard fiber and connector attenuation of 3dB/Km. Fiber condition, splices and connectors may affect actual range.

Wavelength:		
Multimode	850/1310nm	
Singlemode	1310/1550nm	
Note: Wavelength will vary by model		

Ethernet Interface:	Auto MDI/MDI-X, Auto-Negotiation, Jumbo Frames up to 10K
Ethernet Ports:	(1) 10/100/1000 Mbps
	(1) Fiber 100BaseFX

LED Status Indicators:		
Power	Power - ON/OFF
Fiber	Fiber port link - ON: link Present, OFF: No Link, Blink: Link activity
10/100	Copper port speed - ON: 10/100, OFF: No 10/100 Connection, Blink: activity
1000	Copper port speed - ON: 1000, OFF: No 1000 Connection, Blink: activity

DIP Switch (LFP):	
Switch 1	Link Fault Pass Through (ON: Enable / OFF: Disable)
Switch 2	Link Fault Pass Through (ON: Enable / OFF: Disable)

Power Protection:	Over Current, Power Reversal, Polarity Protection
Power Input:	12~48VDC redundant power inputs (6 position pluggable terminal block)
Max Power Consumption:	1.8 Watts
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)

Specifications (cont.)

Switch Characteristics	
Construction:	Powder coated IP30 steel housing
Dimensions:	1" (W) x 3" (D) x 3.8" (H), (26mm x 75mm x 95mm) *Not including connectors, DIN clip, or wall mount ears
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, 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, UL 61010-2-201 1st Edition, File Number: E480850
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	550m/1804 feet	**EGD-04-4**
	SC	Dual Fibers	1310nm	550m/1804 feet	**EGD-03-4**
Multimode	ST	Dual Fibers	850nm	550m/1804 feet	**EGD-07-4**
	SC	Dual Fibers	850nm	550m/1804 feet	**EGD-06-4**
Singlemode	ST	Dual Fibers	1310nm	20km/12.4 miles	**EGD-50-4**
			1310nm	60km/37 miles	**EGD-51-4**
			1550nm	120km/74 miles	**EGD-55-4**
Singlemode	SC	Dual Fibers	1310nm	20km/12.4 miles	**EGD-40-4**
			1310nm	60km/37 miles	**EGD-41-4**
			1550nm	120km/74 miles	**EGD-45-4**
Singlemode	SC	Single Fiber - Side A	T-1310/R-1550	20km/12.4 miles	**EGD-10-4**
		Single Fiber - Side B	R-1310/T-1550	20km/12.4 miles	**EGD-11-4**
Singlemode	SC	Single Fiber - Side A	T-1310/R-1550	40km/24.8 miles	**EGD-14-4**
		Single Fiber - Side B	R-1310/T-1550	40km/24.8 miles	**EGD-15-4**

- Single fiber models require an A side and B side unit for a complete system

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