

DATA SHEET

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DS-M107 2023-10-11

Industrial Gigabit Ethernet Media Converter

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.

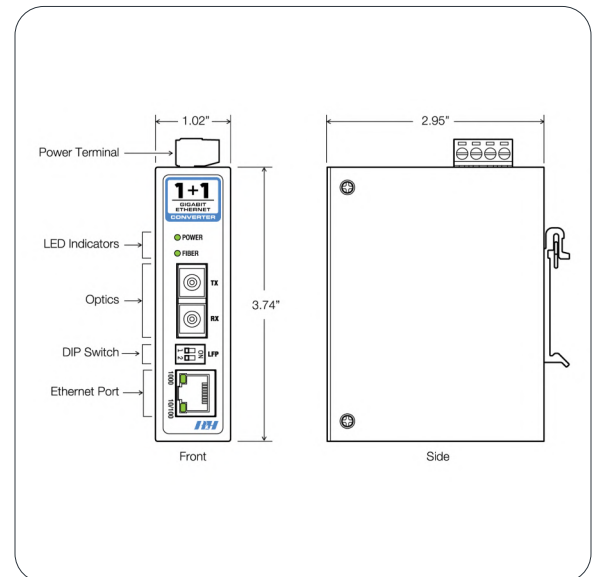
Features include link fault pass thru, auto MDI/MDI-X, auto speed and duplex negotiation, a small footprint, and mounting options including both T-35 DIN rail and wall mounting ears.

Key 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

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Key Specifications

| | | | | |
|---|---|--|--------|--|
| Transmission Method: | Store & Forward, CSMA/CD | | | |
| Data Process Standards: | IEEE 802.3 10BaseT Ethernet, IEEE 802.3u 100BaseTX Fast Ethernet, IEEE 802.3ab 1000BaseT, IEEE 802.3z 1000Base-X Gigabit Fiber | | | |
| Transfer Rate(s): | 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: | Multimode | 62.5/125, 50/125 μ m | | |
| | Singlemode | 9/125 μ m | | |
| Fiber Type / Connector / Distance: | Single Fiber (bi-directional) | Singlemode | SC | 20km/12.4 miles 40km/24.8 miles |
| | Dual Fiber | Multimode | ST, SC | 550m/1804 feet |
| | | Singlemode | 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 (4 position pluggable terminal block) | | | |
| Max Power Consumption: | 1.8 Watts | | | |

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Key Specifications (cont'd)

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| Operating Temperature: | -40°C to +70°C (-40°F to +158°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 |
| 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 (T-35) or wall mount (bracket included) |
| Warranty: | Limited 5 Year |

Ordering Information

| Mode | Connector | Distance | Fibers | Wavelength | Part Number |
|------------|-----------|-----------------|-----------------------|---------------|-------------|
| Multimode | ST | 550m/1804 feet | Dual Fiber | 1310nm | EGD-04-4 |
| Multimode | SC | 550m/1804 feet | Dual Fiber | 1310nm | EGD-03-4 |
| Multimode | ST | 550m/1804 feet | Dual Fiber | 850nm | EGD-07-4 |
| Multimode | SC | 550m/1804 feet | Dual Fiber | 850nm | EGD-06-4 |
| Singlemode | ST | 20km/12.4 miles | Dual Fiber | 1310nm | EGD-50-4 |
| Singlemode | ST | 40km/24.8 miles | Dual Fiber | 1310nm | EGD-51-4 |
| Singlemode | ST | 100km/62 miles | Dual Fiber | 1550nm | EGD-55-4 |
| Singlemode | SC | 20km/12.4 miles | Dual Fiber | 1310nm | EGD-40-4 |
| Singlemode | SC | 40km/24.8 miles | Dual Fiber | 1310nm | EGD-41-4 |
| Singlemode | SC | 100km/62 miles | Dual Fiber | 1550nm | EGD-45-4 |
| Singlemode | SC | 20km/12.4 miles | Single Fiber - Side A | T-1310/R-1550 | EGD-10-4 |
| Singlemode | SC | 20km/12.4 miles | Single Fiber - Side B | R-1310/T-1550 | EGD-11-4 |
| Singlemode | SC | 40km/24.8 miles | Single Fiber - Side A | T-1310/R-1550 | EGD-14-4 |
| Singlemode | SC | 40km/24.8 miles | Single Fiber - Side B | R-1310/T-1550 | EGD-15-4 |

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

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