

Product Introduction: Fully Rugged Fiber-to-Ethernet Media Converter

This device is an advanced and reliable solution for transmitting critical data in the **most demanding and harsh environments**. Engineered with military-grade components and a robust design, this converter guarantees stable, uninterrupted connectivity in industrial, military, and marine applications. It functions as a fully sealed communication node, converting Ethernet signals to fiber optic and protecting data from all forms of environmental damage.

Section 1: Key Features and Top Advantages

1. Extreme Environmental Resistance:

- **Military Standard (MIL-STD-810G):** Designed to withstand shock, vibration, and mechanical stress. The sturdy metal housing, secure locking connectors, and internal design make it ideal for use in military vehicles, aircraft, and battlefield equipment.
- **Complete Water and Dust Proofing (IP67):** This converter is completely protected against dust ingress and can be submerged in up to 1 meter of water for 30 minutes. This feature guarantees stable operation in marine environments, tunnels, and dusty or humid locations.

2. Secure and Reliable Connectivity:

- **High-Durability Fiber Optic Port:** The LC-Duplex fiber optic port features a metal body and a screw-lock mechanism, providing a secure and stable connection that resists pulling and intense vibration.
- **Industrial Ethernet Ports:** The RJ45 Ethernet ports, like the fiber optic port, are equipped with metal covers and screw locks. This design prevents accidental disconnection and ensures uninterrupted communication.

3. Wide Operating Temperature Range:

- **Exceptional Performance:** This device operates reliably in temperatures from **-40°C to +75°C**, making it suitable for any climate, from extreme cold to scorching heat.



Section 2: Technical Specifications

Specification	Details
Fiber Optic Ports	1, LC-Duplex, Multimode
Transmission Distance	Up to 2 km on fiber optic cable
Optical Wavelength	850 nm
Fiber Standard	IEEE 802.3u 100BASE-FX
Ethernet Ports	2, 10/100Mbps RJ45 with industrial connectors
Ethernet Standard	IEEE 802.3 10BASE-T and IEEE 802.3u 100BASE-TX
Features	Auto Negotiation, Half/Full Duplex, Auto MDI/MDI-X
Ingress Protection	IP67 (Dust and waterproof)
Resistance	Vibration & Shock: MIL-STD-810G compliant Shock: IEC 60068-2-27
Temperature Range	Operating: -40°C to +75°C Storage: -40°C to +85°C
Power Input	DC Power, 12 to 48V Via military-grade connector
Power Consumption	Max 3 Watts
Housing Material	Military-grade Aluminum with protective coating
Dimensions	100x75x40 mm (Approx.)
Weight	350 g

Section 3: Applications and Benefits

Applications:

- **Military Systems:** For communication networks in military vehicles, radar equipment, and surveillance systems.
- **Heavy Industry:** In manufacturing plants, mines, and construction sites with high levels of dust and vibration.
- **Oil, Gas, and Petrochemicals:** For hazardous environments with potential exposure to chemicals or explosive gases.
- **Surveillance and Security:** For outdoor or industrial security cameras exposed to harsh weather conditions.
- **Marine and Transportation:** For navigation and communication data in ships, submarines, and trains.

Key Customer Benefits:

- **Reduced Maintenance Costs:** The product's durability and long lifespan minimize the need for repairs and replacements.
- **Improved Network Security:** Converting copper signals to fiber optics enhances resistance to electromagnetic interference (EMI).
- **Guaranteed Performance in Critical Situations:** Your network will remain operational and stable, regardless of environmental factors.

