# VOLKTEK

# NXF-742E

## 10/100 RJ45 to 100FX Converter
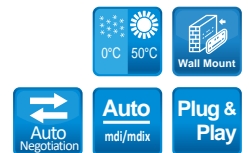
## Description

The NXF-742E Fast Ethernet Media Converter is specifically designed for medium and large workgroups which demand extended reach, and engineered to offer a solution for networks that are ready to expand or migrate from copper-based to Fiber-based networks. Along with the capability of converting media transmissions, the NXF-742E features enhanced functions like local and remote Loopback, Auto MDI/MDIX, LFS (Link Fault Signalling), LEDs, DIP switches etc to provide high reliability, easy plug-and-play, continuous monitoring and thereby minimize downtime for mission-critical networks.

Featuring an RJ45 port and a fiber port, the NXF-742E converts 10/100Base-TX network to 100Base-FX fiber network or vice versa by easily integrating copper with fiber and allowing them to operate smoothly. This gives the utmost flexibility in installing various connections over fiber and extend the reach of Fast Ethernet connectivity over single-mode or multi-mode fiber. The NXF-742E offers you the most economic and cost-effective solution to meet your need for long distance transmissions up to 100km and provide a gradual migration path from existing copper-based network to Fiber-based network.

## Features Highlight

### Versatile and Reliable Technology

Network administrators can now flexibly monitor and diagnose issues associated with device or network functionality and link activity using the NXF-742E enhanced features. With Loopback function, the converter allows administrators to perform network diagnostics from local or remote location and quickly pinpoints problem areas of links by testing a particular segment. LFS (Link Fault Signalling) feature on the device provides critical information about link status and enables you to easily detect optical signal strengths and faulty links on copper and fiber ports, and significantly minimizes outage.
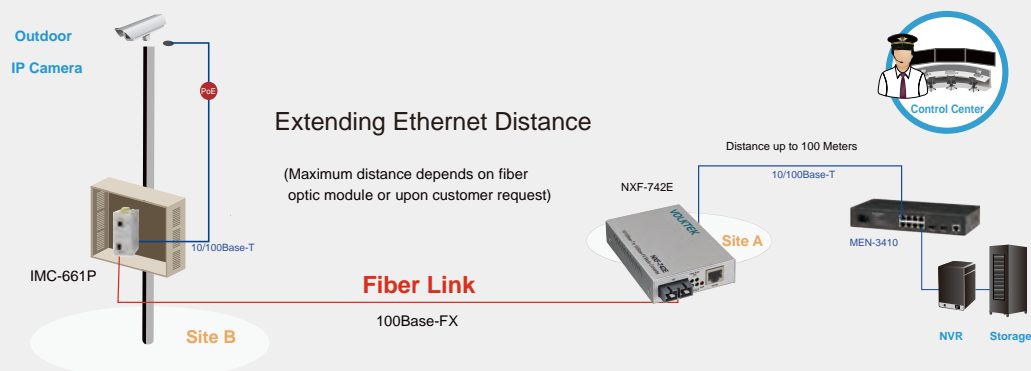
### Economic and Space-saving Design

Responding to the issues of design in mission-critical environments, the NXF-742E is designed in a space-saving, compact and slim housing. This standalone low-cost media converter provides transparent conversion at 100Mbps without data stream interference and inexpensively connects both 10/100Mbps copper port and 100Mbps Fiber port in a small enclosure. Compact in size, the media converter easily fits in smaller infrastructures that have little space available. The NXF-742E is extremely simple to install and operate, and thus saves your valuable time and money.

### Easy Plug-and-play Operation

Being a compact, lightweight media converter, the NXF-742E is an easy-to-setup and ready-to-use solution for dispersed or emerging networks. Featuring Auto-MDI/MDIX and Auto-negotiation, the media converter automatically detects and configures the best mode of operation over a link. This eliminates the need of user setup or configuration procedure and simplifies installation. And once installed the media converter operates automatically. In addition, the DIP switches on the NXF-742E provides a simplest and quickest way to enable or disable various functions on the device.

## Applications

**Fiber-Optic Link Capability Enables Extension of Network Deployment**



* The diagram illustrates a typical application for the NXF-742E media converter. The actual distances will depend on several factors, including the quality of cables used and the terminal equipment employed.

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## Specifications

### Features

| DIP Functions | 1: Link Fault Signal |
|---|---|
| | 2: LLB (Local Loopback) |
| | 3: RLB(Remote Loopback) |

### Standards

| IEEE 802.3 | 10BASE-T |
|---|---|
| IEEE 802.3u | 100BASE-TX/FX |

### Interface

| Ports | 1 x 10/100BASE-T (RJ45) |
|---|---|
| | 1 x 100BASE-TX/FX |
| LED Panel | PWR, LNK/ACT, 100 |

### Fiber Optics

| Model Name | NXF-742E-MT | NXF-742E-MC | NXF-742E-SC | NXF-742E-TS | NXF-742E-RS |
|---|---|---|---|---|---|
| Connector Type | ST | SC | SC | TX | RX |
| Interface Type | 100Base-FX | 100Base-FX | 100Base-FX | 100Base-FX | 100Base-FX |
| Fiber Mode | Multi-Mode | Multi-Mode | Single-Mode | Single-Mode | Single-Mode |
| Distance | Up to 2km | Up to 2km | Up to 100km | Up to 40km | Up to 40km |
| | (Upon customer request) | | | | |

### Features

| Performance | Packet buffer size: 512Kbits |
|---|---|
| | Jumbo Frame size: 16KB |

### Power

| Power Input | 12VDC/1A, via external power adapter |
|---|---|
| Power Consumption | 1.8W |
| Connector Type | DC Jack |

### Mechanical and Environment

| Housing | Aluminum |
|---|---|
| Mounting | Wall-Mount, DIN-Rail (Optional) |
| Operating Temperature | 0ºC~50ºC (32°F~122°F) |
| Storage Temperature | -25ºC~70ºC (-13°F~158°F) |
| Operating Humidity | 10 to 95% RH (non-condensing) |
| Storage Humidity | 5 to 95% RH (non-condensing) |
| Weight | 138 g (0.3 lb) |
| Dimension (WxHxD) | 73.8 x 23.4 x 109.2 mm (2.9 x 0.92 x 4.3 in) |

*Specifications subject to change without notice.*

### Standards and Certifications

| EMI | FCC Part 15 of Class A & CE Approved<br>EN55032 Class A<br>EN 61000-3-2<br>EN 61000-3-3 |
|---|---|
| EMS | EN 55024<br>IEC/EN 61000-4-2 (ESD)<br>IEC/EN 61000-4-3 (RS)<br>IEC/EN 61000-4-4 (EFT)<br>IEC/EN 61000-4-5 (Surge)<br>IEC/EN 61000-4-6 (CS)<br>IEC/EN 61000-4-8 (PFMF)<br>IEC/EN 61000-4-11 |

### Ordering Information

| NXF-742E-MT | 10/100BASE-TX to 100BASE-FX (ST) Multi-mode 2km Media Converter |
|---|---|
| NXF-742E-MC | 10/100BASE-TX to 100BASE-FX (SC) Multi-mode 2km Media Converter |
| NXF-742E-SC | 10/100BASE-TX to 100BASE-FX (SC) Single mode 30km Media Converter |
| NXF-742E-SC40 | 10/100BASE-TX to 100BASE-FX (SC) Single mode 40km Media Converter |
| NXF-742E-SC60 | 10/100BASE-TX to 100BASE-FX (SC) Single mode 60km Media Converter |
| NXF-742E-SC100 | 10/100BASE-TX to 100BASE-FX (SC) Single mode 100km Media Converter |
| NXF-742E-TS20 | 10/100BASE-TX to 100BASE-FX Single FiberMedia Converter, 20km TX 1310nm/RX 1550nm Transmitter |
| NXF-742E-TS40 | 10/100BASE-TX to 100BASE-FX Single Fiber Media Converter, 40km TX 1310nm/RX 1550nm Transmitter |
| NXF-742E-RS20 | 10/100BASE-TX to 100BASE-FX Single Fiber Media Converter, 20km TX 1550nm/RX 1310nm Receiver |
| NXF-742E-RS40 | 10/100BASE-TX to 100BASE-FX Single Fiber Media Converter, 40km X 1550nm/RX 1310nm Receiver |

## Dimension