# EKI-3541M EKI-3541S

## 10/100T (X) to Multi-Mode SC Type Fiber Optic Industrial Media Converter 10/100T (X) to Single-Mode SC Type Fiber Optic Industrial Media Converter



#### **Features**

- Provides 1 x 10/100 Mbps Ethernet port with RJ45 connector
- Provides 1 x 100 Mbps Multi-mode/Single-mode SC type fiber port
- Supports Link Fault Pass-through (LFP) function
- Supports full/half duplex flow control
- Supports store and forward transmission
- Supports Auto-Negotiation
- Supports MDI/MDI-X auto crossover
- Supports redundant 12-48 V<sub>DC</sub> power input
- Provides flexible mounting: DIN-rail and Wall mount

### Introduction

EKI-3541M/3541S is designed to convert Ethernet networks to fiber networks by transparently converting Ethernet signals to optic signals. The advantages of fiber optics are wide bandwidth, EMI immunity and long-distance transmissions. Therefore, EKI-3541M/3541S is an ideal solution for "fiber to building" applications at central offices or local sites. EKI-3541M/3541S supports MDI/MDIX auto detection, so you don't need to use crossover wires. Furthermore, the EKI-3541M/3541S can work normally from -10 to 60°C and accepts a wide voltage range from  $8.4 \sim 52.4 \text{ V}_{DC}$ . Besides, it also provides 4,000 V<sub>DC</sub> surge (EFT) protection against over-voltage, so it is suitable for harsh operating environments.

#### Link Fault Pass-Through (LFP)

EKI-3541M/3541S is an enhanced Ethernet to fiber-optic converter. Aside from its standard features, the versatile EKI-3541M/3541S also has the LFP (Link Fault Pass-through) feature. When one side of the link fails, the other side continues transmitting packets, and waiting for a response that never arrives from the disconnected side. Use the internal jumper to enable the LFP function, then EKI-3541M/3541S will force the link to shut down as soon as noticed that the other link has failed, giving the application software a chance to react to the situation.

## **Specifications**

#### **Communications**

Standard IEEE 802.3, 802.3u, 802.3x
 LAN 10/100Base-T (X), 100Base-FX
 Transmission Distance Ethernet: Up to 100 m

Fiber: Multi-mode: up to 2 km Fiber: Single-mode: up to 30 km

Transmission Speed Up to 100 Mbps

Optical Fiber

Multi-mode Wavelength: 1310 nm (EKI-3541M) Tx Power: -14/-20 dBm Rx Sensitivity: -31 dBm

Parameters: 50/125 um,62.5/125 um

Single-mode Wavelength: 1310 nm (EKI-3541S) Tx Power: -8/-15 dBm

Rx Sensitivity: -34 dBm Parameters: 9/125 um

Interface

• Connectors 1 x RJ45

1 x SC type fiber connector

6-pin removable screw terminal (power)

• **LED Indicators** P1, P2, P-Fail

LFP, LNK/ACT (FX), FDX/COL (FX)

T(X):Speed and HDX/FDX, LFP
Fiber: HDX/FDX, T(X):Auto-Negociation

Power

Power Consumption Max. 2.4 W

Power Input
 12 ~ 48 V<sub>DC</sub>, redundant dual inputs

#### Mechanism

Dimensions (W x H x D) 28.5 x 120 x 85.3 mm (1.02" x 4.73" x 3.35")

Mounting DIN-rail, Wall

• **Enclosure** IP40, plastic and metal shell with solid mounting kits

#### **Protection**

Power Reverse PresentOverload current Present

#### **Environment**

Operating Temperature
 Storage Temperature
 Operating Humidity
 Storage Humidity
 Storage Humidity
 Operating Humidity
 Operating Humidity
 Operating Humidity
 Operating Humidity
 Operating Humidity
 Operating Humidity

MTBF 597,488 hours (EKI-3541M and EKI-3541S)

#### Certification

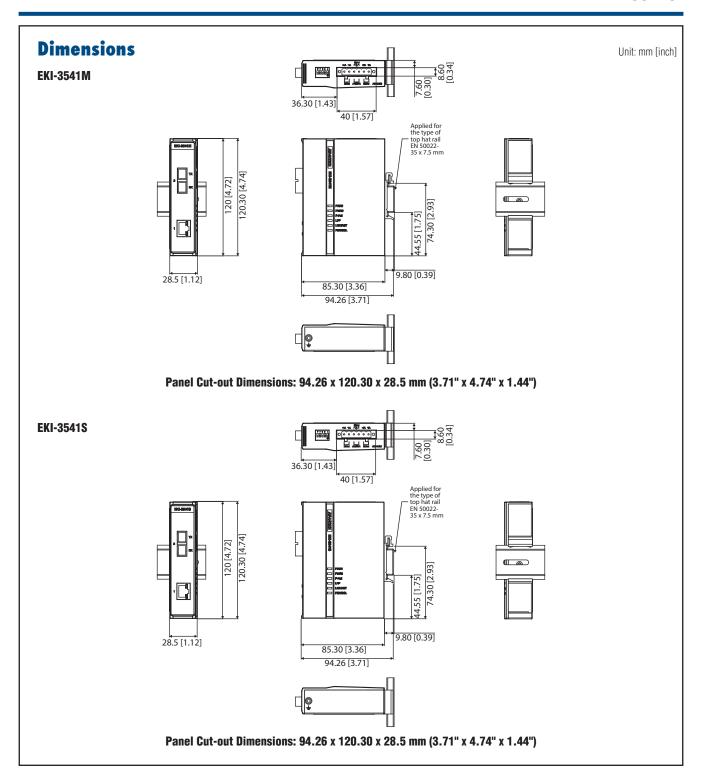
Safety
 EMI
 UL 60950-1, CAN/CSA-C22.2 No.60950
 FCC Part 15 Subpart B Class A, EN 55011/55022

Class A

**EMS** EN 61000-4-2 (Level 3)

EN 61000-4-3 (Level 3) EN 61000-4-4 (Level 4) EN 61000-4-5 (Level 3) EN 61000-4-6 (Level 3) EN 61000-4-8 (Level 4)

■ Shock IEC 60068-2-27
■ Freefall IEC 60068-2-32



## **Ordering Information**

EKI-3541M 10/100T (X) to Multi-Mode SC Type Fiber Optic

Industrial Media Converter

**EKI-3541S** 10/100T (X) to Single-Mode SC Type Fiber Optic

Industrial Media Converter



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