EKI-2541M/MI EKI-2541S/SI

10/100-TX to Multi-Mode SC-Type Fiber **Optic Hardened Medial converter** 10/100-TX to Single-Mode SC-Type Fiber **Optic Hardened Medial converter**



Features

- 1 x 10/100 Mbps Ethernet port with RJ45 connector
- 1 x 100 Mbps multi-mode/single-mode SC-type fiber port
- Internal jumper for link fault pass-through
- Supports full/half duplex flow control
- Supports store and forward transmission
- Supports auto-negotiation
- Supports MDI/MDI-X auto-crossover
- Redundant 12 ~ 48 V_{DC} power input
- Flexible mounting options: DIN rail and panel mount
- Wide operating temperatures range of -40 ~ 75°C (EKI-2541MI/SI)

Introduction

The EKI-2541M/2541S are designed to transparently convert Ethernet networks to fiber networks. The advantages of fiber optics are the wide bandwidth, EMI immunity, and longdistance transmission. Therefore, the EKI-2541M/2541S are ideal for fiber-to-building applications at central offices or local sites. These converters support MDI/MDIX auto detection, thus eliminating the need to use crossover wires. Furthermore, they can operate normally at temperatures of -10 ~ 60°C and they accept a wide voltage range of 12 ~ 48 Vpc. They also feature 3,000 V_{DC} surge protection (EFT) against overvoltage, making them highly suitable for harsh operating environments. The EKI-2541M/2541S are enhanced Ethernet to fiber-optic converters. Aside from their standard features, these versatile converters also feature link fault pass-through. Typically, 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. However, the EKI-2541M/2541S will force the link to shut down as soon as the link failure is detected, thus giving the application software a chance to correct the problem.

Specifications

Communications

Standard IEEE 802.3, 802.3u, 802.3x LAN 10/100BASE-TX, 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

Wavelength: 1310 nm Multi-mode (EKI-2541M/MI) Tx Power: -14/-20 dBm Rx Sensitivity: -31 dBm

Parameters: 50/125 um,62.5/125 um

Wavelength: 1310 nm Single-mode (EKI-2541S/SI) 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

Ethernet: 10/100 m, LNK/ACT Fiber: HDX/FDX, LNK/ACT

 DIP Switch Port/Power Alarm, LFP Fiber: HDX/FDX, Converter/Switch **Power**

 Power Consumption Max. 2.7 W

Power Input $12 \sim 48 V_{DC}$, redundant dual inputs

Mechanism

Dimensions (W x H x D) 30 x 140 x 95 mm (1.18"x5.51"x3.74")

 Mounting DIN-rail, Wall (optional)

 Enclosure IP30, Metal shell with solid mounting

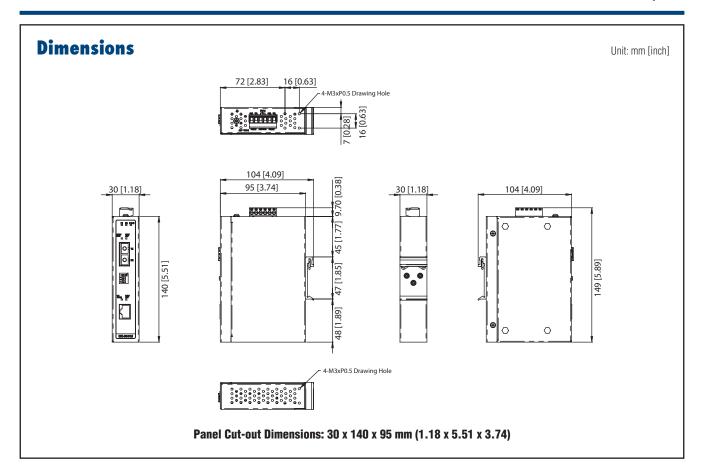
Protection

 Power Reverse Present Overload current Present

Environment

• Operating Temperature $-10 \sim 60^{\circ}\text{C} (14 \sim 140^{\circ}\text{F})$ Wide Temp. model -40 ~ 75°C (-40 ~ 167°F) Storage Temperature -40 ~ 85°C (-40 ~ 185°F) Operating Humidity 5 ~ 95% (non-condensing) Storage Humidity 0 ~ 95% (non-condensing)

MTBF 577,175 hours



Certification

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

- EMS EN 61000-4-2

EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8

IEC 60068-2-27 Shock IEC 60068-2-32 Freefall IEC 60068-2-6 Vibration

Ordering Information

■ EKI-2541M-BE

■ EKI-2541MI-BE

Ethernet to Multi-mode Fiber Converter

Ethernet to Multi-mode Fiber Converter w/ Wide Temp.

■ EKI-2541S-BE

Ethernet to Single-mode Fiber Converter

■ EKI-2541SI-BE

Ethernet to Single-mode Fiber Converter w/ Wide

Temp.