EKI-2741 Series

10/100/1000T (X) to Fiber Optic Gigabit Industrial Media Converters

Features

- Provides 1 x 10/100/1000 Mbps Ethernet port with RJ45 connector
- Provides 1 x 1000 Mbps fiber port with SC type connector for 1000Base-SX/LX device
- Provides 1 x 100/1000 Mbps Ethernet port with SFP (mini-GBIC) type
- Provides DIP switch for power alarm & LFP
- Supports MDI/MDI-X auto crossover
- Supports auto-negotiation
- Supports redundant 12 ~ 48 V_{DC} power input
- Provides flexible mounting: DIN-rail and wall mount
- Provides Link Fault Pass-through (LFP)
- Jumbo Frame: 9216 bytes

Introduction

The EKI-2741 is designed to convert Gigabit Ethernet networks to Gigabit fiber networks by transparently converting Ethernet signals to optic signals. Therefore, the EKI-2741 is an ideal solution for "fiber to building" applications at central offices or local sites. EKI-2741 supports MDI/MDIX auto detection, so you don't need to use crossover wires. Furthermore, the EKI- 2741 accepts a wide voltage range from 12 ~ 48 V_{DC}. EKI-2741 is an enhanced gigabit Ethernet to fiber optic converter. Aside from its standard features, the versatile the EKI-2741 also has the LFP (Link Fault Pass-through) feature. So when one side of the link fails and the other side continues transmitting packets, waiting for a response that never arrives from the disconnected side, EKI-2741 will force the link to shut down as soon as it has noticed the other link has failed, giving the application software a chance to react to the situation.

Specifications

Communications

Standard	IEEE 802.3, 802.3u, 802.3ab, 802.3x, IEEE 802.3z
LAN	10/100/1000Base-T (X), 1000Base-SX or 1000Base-LX
Transmission Distance	Ethernet: Up to 100 m Fiber: Multi-mode: Up to 550 m Single-mode: Up to 10 km (EKI-2741LX) or up to 110 km (EKI-2741F) SFP: Up to 110 km (EKI-2741F)
Transmission Speed	Up to 1000 Mbps
Optical Fiber	
Multi-mode (EKI-2741SX/SXI)	Wavelength: 850 nm Tx Power: -4/-9.5 dBm Rx Sensitivity: -18 dBm Parameters: 50/125 um, 62.5/125 um
Single-mode (EKI-2741LX/LXI)	Wavelength: 1310 nm Tx Power: -3/-9.5 dBm Rx Sensitivity: -20 dBm Parameters: 9/125 um

Interface

Connectors	1 x RJ45 1 x SC type fiber connector (EKI-2741SX/LX) or 1 x SFP type fiber connector (EKI-2741F) 6-pin removable screw terminal (power & relay)
LED Indicators	P1, P2, P-Fail Fiber: LNK/ACT Ethernet: 1000M, LNK/ACT
DIP Switch	Power alarm, LFP

Power

Power Consumption	3.5W
Power Input	12 ~ 48 V_{DC}, redundant dual inputs

Mechanism

Dimensions (W x H x D)	30 x 140 x 95 mm (1.18" x 5.51" x 3.74")
Enclosure	IP30, metal shell with solid mounting kits
Mounting	DIN-rail, wall

Protection

Power Reverse	Present
Overload current	Present

Environment

Operating Temperature	-10 ~ 60 °C (14 ~ 140 °F)
Wide Temp Model	-40 ~ 75 °C (-40 ~ 167 °F)
Storage Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
Operating Humidity	10 ~ 95% (non-condensing)
Storage Humidity	10 ~ 95% (non-condensing)
MTBF	TBD

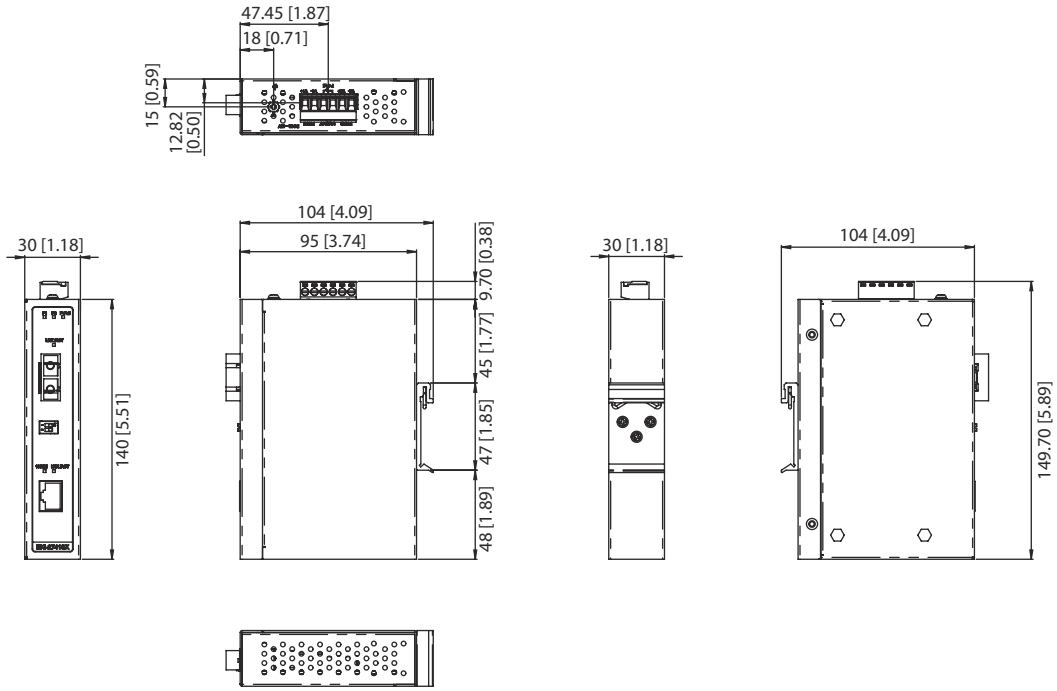
Certification

Safety	UL 60950
EMI	CE, FCC 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
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

Last updated: 18-Oct-2017

Dimensions

Unit: mm [inch]



Panel Cut-out Dimensions: 30 x 140 x 95 mm (1.18" x 5.51" x 3.74")

Ordering Information

- **EKI-2741F-BE** Giga Ethernet to SFP fiber converter
- **EKI-2741FI-BE** Giga Ethernet to SFP fiber converter with wide temp.
- **EKI-2741SX-BE** Giga Ethernet to 1000Base-SX fiber converter
- **EKI-2741SXI-BE** Giga Ethernet to 1000Base-SX fiber converter with wide temp.
- **EKI-2741LX-BE** Giga Ethernet to 1000Base-LX fiber converter
- **EKI-2741LXI-BE** Giga Ethernet to 1000Base-LX fiber converter with wide temp.