

EKI-2741 Series

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



Features

- Provides 1 x 1000 Mbps Ethernet port with RJ45 connector
- Provides 1 x 1000 Mbps fiber port with SC or SFP (mini-GBIC) type connector for 1000Base-SX/LX device
- Provides DIP switch for full/half duplex setting
- 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: 9K bytes



Introduction

EKI-2741 is designed to convert Gigabit Ethernet networks to Gigabit fiber networks by transparently converting Ethernet signals to optic signals. Therefore, 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}. Besides, it also provides 3,000 V_{DC} surge (EFT) protection against over-voltage, so it is suitable for harsh operating environments.

EKI-2741 is an enhanced gigabit Ethernet to fiber optic converter. Aside from its standard features, the versatile EKI-2741 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. EKI-2741 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, 802.3ab, 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)
Up to 1000 Mbps
- Transmission Speed** Up to 1000 Mbps
- Optical Fiber** Multi-mode (EKI-2741SX)
Single-mode (EKI-2741LX/LXI)
Wavelength: 850 nm
Tx Power: -4/-9.5 dBm
Rx Sensitivity: -18 dBm
Parameters: 50/125 um, 62.5/125 um
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
Port Alarm, LFP
- DIP Switch**

Power

- Power Consumption** 5.28 W (EKI-2741F)
5.18 W (EKI-2741SX)
5.30 W (EKI-2741LX)
- Power Input** 12 ~ 48 V_{DC}, redundant dual inputs

Mechanism

- Dimensions (W x H x D)** 37 x 140 x 95 mm (1.46" 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** 5 ~ 95% (non-condensing)
- Storage Humidity** 0 ~ 95% (non-condensing)
- MTBF** 515,600 hours (EKI-2741F)
525,300 hours (EKI-2741SX/LX)

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
- Shock** IEC 60068-2-27
- Freefall** IEC 60068-2-32
- Vibration** IEC 60068-2-36

Ordering Information

- EKI-2741F** Giga Ethernet to SFP Fiber Converter
- EKI-2741SX** Giga Ethernet to 1000Base-SX Fiber Converter
- EKI-2741LX** Giga Ethernet to 1000Base-LX Fiber Converter