EKI-2741 Series

10/100/1000TX to Fiber Optic Gigabit Industrial Media Converters

NEW

EKI-2741F ▲   EKI-2741LX ▲   EKI-2741SX ▲

CE FCC c(UL)us LISTED E180881 I.T.E.

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 3,000 V_{DC} surge (EFT) protection
- Supports 4,000 V_{DC} Ethernet ESD protection
- Supports redundant +12-48 V_{DC} power input
- Provides flexible mounting: DIN-rail & Wallmounting
- Provides Link Fault Pass-through (LFP)
- Supports wide Operating Temperature from -40 ~ 85° C

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** — IEEE802.3, 802.3u, 802.3ab, 802.3x, IEEE 802.3z
- **LAN** — 10/100/1000Base-TX, 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 (2741LX) or 110 km (2741F)
  SFP: Up to 110 km (2741F)
- **Transmission Speed** — Up to 1000 Mbps

Interface

- **Connectors** — 1 x RJ-45
  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** — Port Alarm, LFP

Power

- **Power Consumption** — 5.28 W (EKI-2741F)
  5.18 W (EKI-2741SX)
  5.30 W (EKI-2741LX)
- **Power Input** — 2 x Unregulated 12 ~ 48 V_{DC}

Mechanism

- **Dimensions (W x H x D)** — 37 x 140 x 95 mm
- **Enclosure** — IP30, Metal shell with solid mounting kits
- **Mounting** — DIN-rail, Wall

Protection

- **ESD (Ethernet)** — 4,000 V_{DC}
- **Surge (EFT for power)** — 3,000 V_{DC}
- **Power Reverse** — Present
- **Overload** — 0.9 A/12 Vdc (Re-settable Fuse)

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 hrs (EKI-2741F)
  525,300 hrs (EKI-2741SX/LX)

Certifications

- **Safety** — UL 60950-1, CAN/CSA-C22.2 No.60950
- **EMC** — U.S.A.: FCC Part 15 CISPR 22
  EU: EN55011, EN61000-6-4, EN55022 Class A,
       EN61000-3-s2/3, EN55024,
       IEC61000-4-2/3/4/5/6/8, EN61000-6-2
- **Shock** — IEC60068-2-27
- **Freefall** — IEC60068-2-32
- **Vibration** — IEC60068-2-6

Ordering Information

- **EKI-2741F** — Industrial Gigabit Ethernet to SFP Type Fiber Optic Converter
- **EKI-2741SX** — Industrial Gigabit Ethernet to 1000Base-SX SC Type Fiber Optic Converter
- **EKI-2741LX** — Industrial Gigabit Ethernet to 1000Base-LX SC Type Fiber Optic Converter
- **EKI-2741LXI** — Industrial Gigabit Ethernet to 1000Base-LX SC Type Fiber Optic Converter, Wide Temp.