EKI-7716E-4F4C
EKI-7716E-4F4CI

8FE+4SFP+4G Combo Port Managed Redundant Industrial Switch

Features

- 8 x fast Ethernet + 4 x Gigabit SFP + 4 x Gigabit Copper/SFP combo ports
- SFP socket for easy and flexible fiber expansion
- Redundancy: X-Ring Pro (ultra-high-speed recovery time, <20 ms), RSTP/STP, and MSTP (802.1w/1D/1s)
- IXM function enables fast deployment
- Security: 802.1x (port-based, MD5/TLS/TTLS/PEAP encryption), RADIUS
- Management: SNMP v1/v2c/v3, WEB, Telnet, standard MIB, private MIB
- NEMA TS2 for traffic control
- EN50121-4 approval for railway trackside deployment
- Wide operating temperature range of -40 ~ 75°C (EKI-7716E-4F4CI)
- Dual 12 ~ 48 V_{DC} power input and 1 x relay output

Introduction

The EKI-7716E-4F4C and EKI-7716E-4F4CI offer 8 fast Ethernet, 4 Gigabit SFP (mini-GBIC), and 4 Gigabit combo ports. These switches provide abundant port options for connecting to various device types. They are also embedded with Advantech IXM function for fast deployment, which can dramatically save on engineering time and costs. The EKI-7716E series also support NMS to help IT managers with networking maintenance and failure prevention. Finally, they are equipped with X-Ring Pro redundancy for ultra-high-speed recovery times of <20 ms. The EKI-7716E-4F4CI also features a wide operating temperature range of -40 to 75°C and a NEMA TS2 rating, making it ideal for use in traffic applications. These switches also meet the EN50121-4 European railway standard for emissions and EMI immunity for railway platforms and trackside deployment.

Specifications

Communications

- **Standard**
  IEEE 802.3, 802.3u, 802.3x, 802.3ad, 802.3ab, 802.3z, 802.1D, 802.1w, 802.1s, 802.1P, 802.1Q, 802.1X
- **LAN**
  10/100BASE-TX, 10/100/1000BASE-TX, optional 100BASE-FX, 1000BASE-SX/LX/LHX/XD/ZX/EZX
- **Transmission Distance**
  Ethernet: Up to 100 m (4- wire Cat.5e, Cat.6 RJ45 cable suggested for both Fast Ethernet/Gigabit port)
  SFP: Up to 110 km (depends on SFP)
- **Transmission Speed**
  Fast Ethernet: 10/100 Mbps
  Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation
  Gigabit Fiber: Up to 1000 Mbps

Interface

- **Connectors**
  8 x RJ45 (Fast Ethernet)
  4 x SFP (mini-GBIC)
  4 x RJ45/SFP (mini-GBIC) combo ports
  6-pin screw terminal block connector
  (4-pin for Power, 2-pin for Relay)
- **LED Indicators**
  PWR1, PWR2, SYS, Alarm and R.M.
  10/100T (X): Link/Activity,
  Gigabit Copper: Link/Activity, Speed (1000 Mbps)
  SFP: Link/Activity
- **Console**
  RS-232 (RJ45)

Network Management

- **Configuration**
  Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
- **VLAN**
  IEEE 802.1Q, GVRP, Port-based VLAN
- **Redundancy**
  Advantech X-Ring, 802.1w/1D/1s RSTP/STP/MSTP
- **Security**
  IP Security, SSH, SSL, SNMPV3, HTTPS, IP Source Guard, DHCP Snooping, ARP Spoofing Prevention, 802.1X, TACACS+, Access Control List
- **Traffic Control**
  IGMP Snooping/Query for Multicast Group Management, Port Trunking, Static/802.3ad, LACP Rate Limit and Storm Control, IEEE 802.1p QoS CoS/TOS/DSCP Priority Queuing, IEEE 802.3x Flow Control
- **Diagnostics**
  Port Mirroring, Real-Time Traffic Statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON

Mechanism

- **Enclosure**
  IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 74 x 152 x 105 mm (2.91" x 5.98" x 4.13")
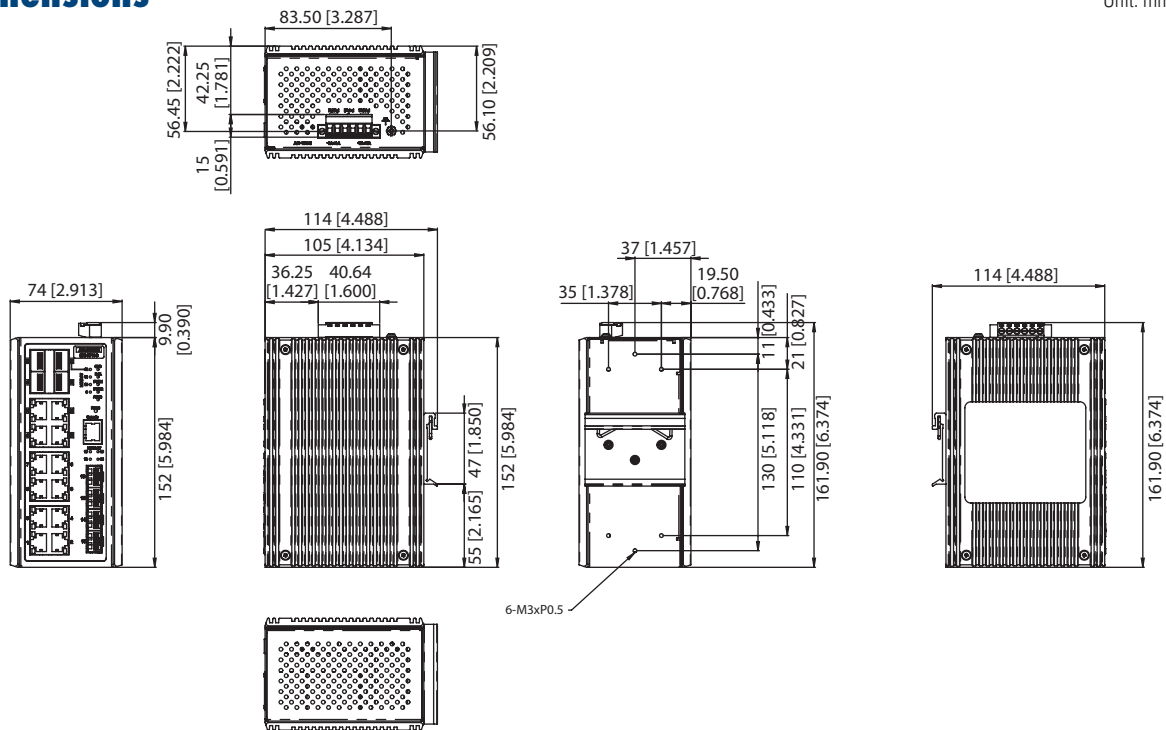- **Mounting**
  DIN-rail, Wall mount

Power

- **Power Consumption**
  15W @ 48V (Full Load)
- **Power Input**
  12-48 V_{DC}, Redundant Dual Power Input
- **Fault Output**
  1 Relay Output

Protection

- **Power Reverse**
  Present
- **Overload Current**
  Present

Dimensions

Unit: mm [inch]

Panel Cut-out Dimensions: 74 x 152 x 105 mm (2.91" x 5.98" x 4.13")

Environment

- **Operating Temperature** -10~60°C (14~140°F) (EKI-7716E-4F4C)
  -40~75°C (-40~167°F) (EKI-7716E-4F4CI)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity** 10 ~ 95% (non-condensing)
- **Storage Humidity** 10 ~ 95% (non-condensing)

Certification

- **Safety** UL 61010
- **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
  EN 50121-4
  NEMA TS2
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6
- **Railway Track Side** EN 50121-4
- **Patent** http://www.advantech.com/legal/patent

Ordering Information

- **EKI-7716E-4F4C-AE** 8FE+4SFP+4G Combo port Managed Industrial Switch
- **EKI-7716E-4F4CI-AE** 8FE+4SFP+4G Combo port Managed Industrial Switch w/Wide Temp.