

# EKI-7716G-4F4C

# EKI-7716G-4F4CI

## 8GE+4SFP+4G Combo port Managed Redundant Industrial Switch



### Features

- 8 Gigabit 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
- -40 ~ 75°C wide-range operating temperature (EKI-7716G-4F4CI)
- Dual 12 ~ 48 V<sub>DC</sub> power input and 1 relay output

### Introduction

EKI-7716G-4F4C/4F4CI supports 8 Gigabit Ethernet, 4 Gigabit SFP (mini-GBIC), and 4 Gigabit combo ports. It provides abundant ports to connect many devices. EKI-7716G-4F4C/4F4CI is embedded with Advantech IXM function for fast deployment that can dramatically save engineering time and cost. EKI-7716G series also supports NMS to help IT managers with networking maintenance and failure prevention. Finally, the EKI-7716G series is equipped with X-Ring Pro redundancy for ultra high-speed recovery times of less than 20 ms. The switch also features -40 to 75 °C wide temperature operation and NEMA TS2 rating, making the switch an ideal solution for use in traffic applications. EKI-7716G-4F4C/4F4CI also passes 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** 10/100/1000Base-T (X), 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** Gigabit Ethernet: 10/100/1000 Mbps  
Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation  
Gigabit Fiber: Up to 1000 Mbps

#### Interface

- **Connectors** 8 x RJ45 (Gigabit 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.  
10/100/1000T (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 Access Security, Port Security, DHCP Client, Port and IP Binding, 802.1X Port Access Control
- **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

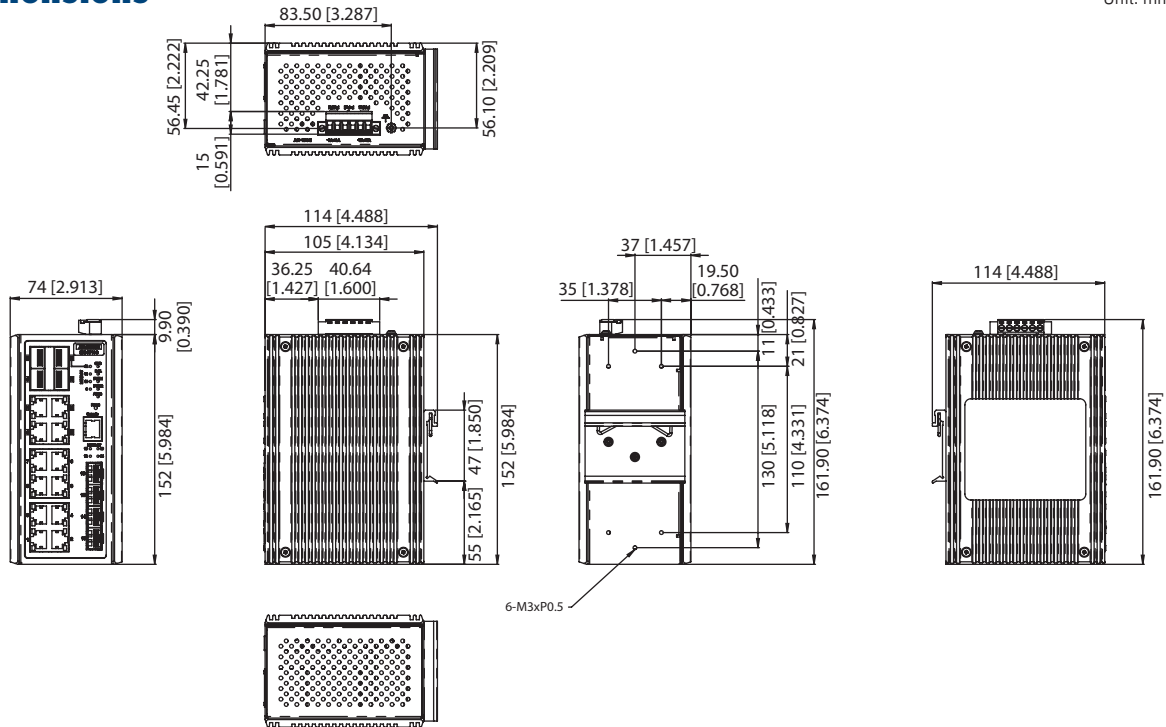
- **Power Consumption** 15W @ 48V (Full Load)
- **Power Input** 12-48 V<sub>DC</sub>, Redundant Dual Power Input
- **Fault Output** 1 Relay Output

#### 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-7716G-4F4C)  
-40~75°C (-40~167°F) (EKI-7716G-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
- **Security** IEC 62443-4-2 SL2
- **Railway Track Side** EN 50121-4
- **Patent** <http://www.advantech.com/legal/patent>

### Ordering Information

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