EKI-7712G-4F
EKI-7712G-4FI

8G+4SFP Port Gigabit Managed Redundant Industrial Switch

Features

- 8 Gigabit ports + 4 SFP ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- 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-7712G-4FI)
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Support Security Pack to against internal and external cyber threats

Introduction

EKI-7712G-4F/4FI provides users with abundant ports to connect to many devices with 8 Gigabit ports and 4 SFP (mini-GBIC) ports. It is embedded with Advantech's IXM function, which can benefit users for fast deployment and can dramatically save engineers time and cost. The EKI-7712G series also support NMS to help IT managers with networking maintenance and failure prevention. Finally, the EKI-7712G series is equipped with X-Ring Pro which can achieve ultra high speed recovery time of less than 20 ms to ensure network stability. The switch also features a wide -40° to 75°C operating temperature (EKI-7712G-4FI) and NEMA TS2 rating, making the switch an ideal solution for use in traffic applications. EKI-7712G-4F/4FI has successfully passed the EN50121-4 European railway standard requirement for emissions and railway platform and trackside deployment.

Specifications

Interface

- **I/O Port** — 8 x 10/100/1000Base-T/TX RJ-45
  4 x SFP (mini-GBIC) port
- **Console port** — RS-232 (RJ45)
- **Power Connector** — 6-pin screw Terminal Block (including relay)

Physical

- **Enclosure** — Metal Shell
- **Protection Class** — IP 30
- **Installation** — DIN-Rail
- **Dimensions (W x H x D)** — 74 x 152 x 105 mm (2.91" x 5.98" x 4.13")

LED Display

- **System LED** — PWR1, PWR2, SYS, Alarm and R.M.
- **Port LED** — Link / Speed / Activity

Environment

- **Operating Temperature** — -40 ~ 75°C (-40 ~ 167°F) (7712G-4FI)
  -10 ~ 60°C (-40 ~ 140°F) (7712G-4F)
- **Storage Temperature** — -40 ~ 85°C
- **Ambient Relative Humidity** — 10 ~ 95% (non-condensing)
- **Humidity** — 10 ~ 95% (non-condensing)

Power

- **Power Consumption** — 12.1W @ 48V_{DC} (System)
- **Power Input** — 12 ~ 48 V_{DC}, redundant dual power input
- **Fault Output** — 1 Relay Output

Certification

- **EMI** — CE, FCC Class A
- **Safety** — UL61010-2-201
  IEC60950*
- **EMC** — EN 61000-4-2
  EN 61000-4-3
  EN 61000-4-4
  EN 61000-4-5
  EN 61000-4-6
  EN 61000-4-8
  EN50121-4*
- **Shock** — IEC 60068-2-27
- **Freefall** — IEC 60068-2-32
- **Vibration** — IEC 60068-2-6
- **Traffic control** — NEMA TS2*

*= Compliant

L2 Features

- **L2 MAC Address** — 8K
- **Jumbo Frame** — 9216 Bytes
- **VLAN Group** — 256 (VLAN ID 1 ~ 4094)
- **VLAN Arrange** — Port based VLAN, Q-in-Q (VLAN Stacking), GVRP
- **Port Mirroring** — Per port, Multi-source port,
- **IP Multicast** — IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave
- **Storm Control** — Broadcast, Multicast, Unknown unicast
- **Redundancy** — IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE 802.1w-RSTP, X-Ring Pro, with ultra high-speed recovery time less than 20ms

Dimensions

Unit: mm [inch]
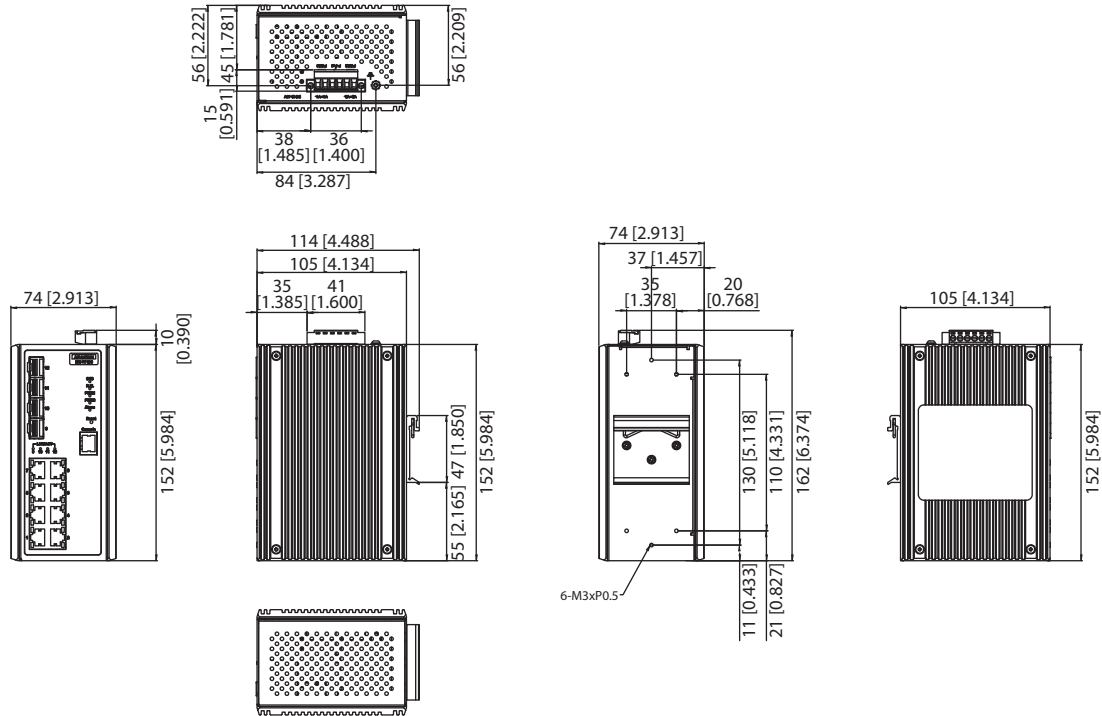
Panel Cut-out Dimensions: 105 (4.137) x 152 (5.984) x 74 (2.91)

QoS

- **Priority Queue Scheduling**: WRR (Weighted Round Robin), SP (Strict Scheduling Priority) Hybrid Priority
- **Class of Service**: IEEE 802.1p Based CoS, IP TOS, DSCP based CoS
- **Rate Limiting**: Ingress Rate limit, Egress Rate limit
- **Link Aggregation**: IEEE 802.3ad Dynamic Port Trunking, Static Port Trunking

Security

- **Port Security**: Static, Dynamic IP Source Guard, ARP Spoofing Prevention, Access Control List, DHCP Snooping
- **Authentication**: 802.1x (Port-Based, MD5/TLS/TTLS/PEAP Encryption), TACACS+

Management

- **DHCP**: Client, Server, Option66/67/82
- **Access**: SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
- **Security access**: SSH2.0, SSL
- **Software upgrade**: TFTP, HTTP, Dual Image
- **NTP**: SNTP client

Ordering Information

- **EKI-7712G-4FI-AE**: 8GE + 4SFP Port Managed Ethernet Switch w/Wide Temp
- **EKI-7712G-4F-AE**: 8GE + 4SFP Port Managed Ethernet Switch