EKI-9226G-20FMI
IEC-61850-3 Industrial Rackmount L2 Managed Switch with 48 V_{DC}

EKI-9226G-20FOI
IEC-61850-3 Industrial Rackmount L2 Managed Switch with AC/DC

Features

- IEC-61850-3 and IEEE1613 certified for Power Energy.
- 20 x Gigabit SFP ports + 6 x Gigabit x RJ-45 ports
- SFP socket for easy and flexible fiber expansion
- Management: SNMP v1/v2c/v3, WEB, Telnet, standard MIB
- Security: 802.1x (port-based, MD5/TLS/TTLS/PEAP encryption), HTTPS, SSH, and SNMPv3
- Redundancy: Gigabit X-Ring Pro (ultra-high-speed recovery time, <20 ms), RSTP/STP (802.1w/1D), MSTP
- Dual Power input and 2 relay output
- Wide operating temperature range of -40 ~ 85˚C

Introduction

The EKI-9226G series are designed for power substation automation applications requiring IEC 61850-3 certification. Thanks to its -40 ~ 85˚C wide operating temperature, it can operate well in extremely harsh environments. Designed with 20 Gigabit SFP ports and 6 Gigabit RJ-45 ports, these this series of switches provide abundant and flexible connection options. Finally, the EKI-9226G series feature dual power inputs to ensure system stability and 2 relay output for greater user flexibility.

Specifications

Communications

- **Standard**: IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
- **LAN**: 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 Gigabit port) SFP: Up to 110 km (depends on SFP)
- **Transmission Speed**: Gigabit copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit fiber: Up to 1000 Mbps

Interface

- **Connectors**: 6 x RJ45 (Ethernet) 20 x SFP ports 3-pin removable screw terminal (power) 4-pin removable screw terminal (relay)
- **LED Indicators**: 10/100TX: Link/activity, duplex/collision Gigabit copper: Link/activity, speed (1000 Mbps) SFP: Link/activity
- **Console**: RS-232 (RJ45)

Mechanism

- **Enclosure**: IP30, metal shell with solid mounting kit
- **Dimensions (W x H x D)**: 438 x 44 x 315.2 mm
- **Mounting**: 1U 19" rack mount

Power

- **Power Consumption**: 35W
- **Power Input**: EKI-9226G-20FMI: 48V_{DC} EKI-9226G-20FOI: 90 ~ 264V_{AC}/88 ~ 370V_{DC}
- **Fault Output**: 2 relay outputs

Protection

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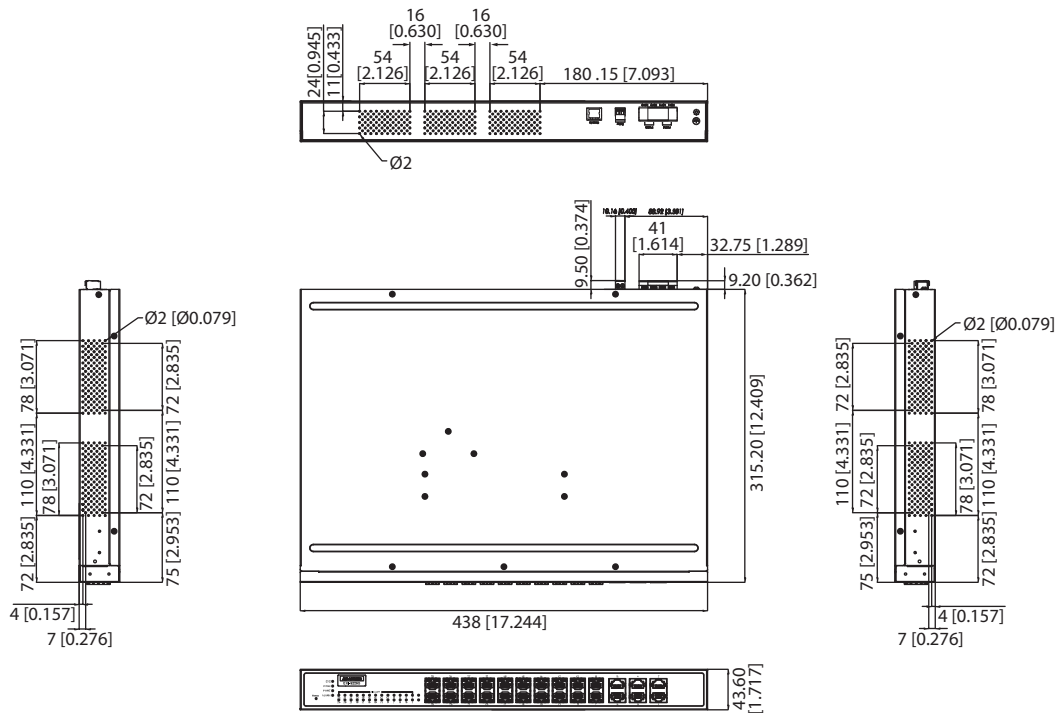- **Overload Current**: Present

Environment

- **Operating Temperature**: -40 ~ 85°C (-40 ~ 185°F)
- **Storage Temperature**: -40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity**: 5 ~ 95% (non-condensing)
- **Storage Humidity**: 5 ~ 95% (non-condensing)

Certification

- **Safety**: UL 60950
- **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 EN61000-6-2 EN61000-6-4
- **Shock**: IEC 60068-2-27
- **Freefall**: IEC 60068-2-32
- **Vibration**: IEC 60068-2-6
- **Power Automation**: IEC 61850-3 , IEEE1613
- **Railway Application**: EN50121-4

ADVANTECH | **Industrial Ethernet Solutions**

All product specifications are subject to change without notice.   Last updated: 7-Jul-2020

Dimensions

Unit: mm [in.]

L2 Features

- **L2 MAC Address** — 8K
- **Jumbo Frame** — 9 KB
- **VLAN Group** — 4093 (VLAN ID 1~4093)
- **VLAN** — Mac-based VLAN, protocol-based VLAN, IP subnet-based VLAN, port-based VLAN, 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
- **Spanning Tree** — IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE 802.1w-RSTP, X-Ring Pro

QoS

- **Priority Queue Scheduling** — WRR, SP
- **Class of Service** — IEEE 802.1p-based CoS, IP TOS, DSCP-based CoS
- **Rate Limiting** — Egress rate limit, ingress rate limit
- **Link Aggregation** — IEEE 802.3ad dynamic port trunking, static port trunking

Security

- **Port Security** — Static, dynamic
- **Authentication** — 802.1x (port-based), RADIUS, TACACS+
- **ACL** — 550 rules
- **Advanced Security** — IP Source Guard

Management

- **DHCP** — Client, server, relay, option 66/67
- **Access** — SNMP v1/v2c/v3, WEB, Telnet, RMON, standard MIB, private MIB
- **Security Access** — SSH 2.0, SSL
- **Software Upgrade** — TFTP, HTTP, dual image
- **NTP** — NTP client

Ordering Information

- **EKI-9226G-20FMI-AE** — Industrial Rackmount L2 Managed Switch with 48 V_{DC}
- **EKI-9226G-20FOI-AE** — Industrial Rackmount L2 Managed Switch with 90 ~ 264V_{AC}/88 ~ 370V_{DC}

Note: For SFP copper type, only 1000Mbps supported.