EKI-9226G-20FMI
EKI-9226G-20FOI

IEC-61850-3 Industrial Rackmount L2 Managed Switch with 48 V$_{DC}$

IEC-61850-3 Industrial Rackmount L2 Managed Switch with AC/DC

Features

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

- ③ **Standard** IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
- ③ **LAN** 10/100/1000BASE-TX, optional 100BASE-FX, 1000BASE-SX/LX/LHX/XD/ZX/EZX
- ③ **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)
- ③ **Transmission Speed** Gigabit copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit fiber: Up to 1000 Mbps

Interface

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

Mechanism

- ③ **Enclosure** IP30, metal shell with solid mounting kit
- ③ **Dimensions (W x H x D)** 438 x 44 x 315.2 mm
- ③ **Mounting** 1U 19" rack mount

Power

- ③ **Power Consumption** 35W
- ③ **Power Input** EKI-9226G-20FMI: 48V$_{DC}$ EKI-9226G-20FOI: 90 ~ 264V$_{AC}$/88 ~ 370V$_{DC}$
- ③ **Fault Output** 2 relay outputs

Protection

- ③ **Power Reverse** Present
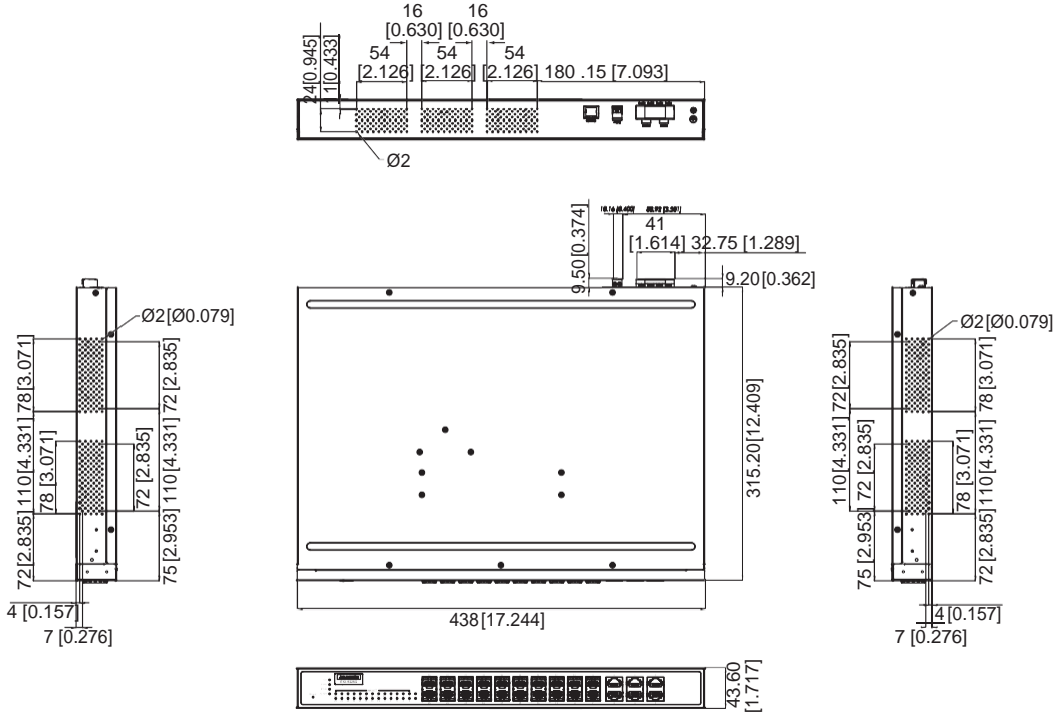- ③ **Overload Current** Present

Environment

- ③ **Operating Temperature** -40 ~ 85°C (-40 ~ 185°F)
- ③ **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- ③ **Operating Humidity** 5 ~ 95% (non-condensing)
- ③ **Storage Humidity** 5 ~ 95% (non-condensing)

Certification

- ③ **Safety** UL 60950
- ③ **EMI** CE FCC Class A
- ③ **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
- ③ **Shock** IEC 60068-2-27
- ③ **Freefall** IEC 60068-2-32
- ③ **Vibration** IEC 60068-2-6
- ③ **Power Automation** IEC 61850-3 , IEEE1613
- ③ **Railway Application** EN50121-4

Dimensions

Unit: mm [in.]

16 [0.630] 16 [0.630]
54 [2.126] 54 [2.126] 54 [2.126] 180 .15 [7.093]
24 [0.945]
110 [0.433]
Ø2

Ø2 [Ø0.079]

9.50 [0.374] 10.16 [0.400] 89.92 [3.50"] 41 [1.614] 32.75 [1.289]
9.20 [0.362]

78 [3.071] 72 [2.835] 72 [2.835] 110 [4.331] 110 [4.331] 78 [3.071] 72 [2.835] 75 [2.953] 315.20 [12.409]

4 [0.157]
7 [0.276]

438 [17.244]

Ø2 [Ø0.079]

110 [4.331] 72 [2.835] 72 [2.835] 78 [3.071] 110 [4.331] 78 [3.071] 72 [2.835] 75 [2.953]

4 [0.157]
7 [0.276]

43.60 [1.717]

L2 Features

③   **L2 MAC Address**   8K
③   **Jumbo Frame** 9 KB
③   **VLAN Group**   4093 (VLAN ID 1~4093)
③   **VLAN**   Mac-based VLAN, protocol-based VLAN, IP subnet-based VLAN, port-based VLAN, GVRP
③   **Port Mirroring** Per port, multi-source port
③   **IP Multicast**   IGMP snooping v1/v2/v3, MLD snooping, IGMP immediate leave
③   **Storm Control** Broadcast, multicast, unknown unicast
③   **Spanning Tree** IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE 802.1w-RSTP, X-Ring Pro

QoS

③   **Priority Queue** WRR, SP Scheduling
③   **Class of Service**   IEEE 802.1p-based CoS, IP TOS, DSCP-based CoS
③   **Rate Limiting** Egress rate limit, ingress rate limit
③   **Link Aggregation**   IEEE 802.3ad dynamic port trunking, static port trunking

Security

③   **Port Security** Static, dynamic
③   **Authentication** 802.1x (port-based), RADIUS, TACACS+
③   **ACL**   550 rules
③   **Advanced Security**   IP Source Guard

Management

③   **DHCP**   Client, server, relay, option 66/67
③   **Access**   SNMP v1/v2c/v3, WEB, Telnet, RMON, standard MIB, private MIB
③   **Security Access**   SSH 2.0, SSL
③   **Software Upgrade**   TFTP, HTTP, dual image
③   **NTP** NTP client

Ordering Information

③   **EKI-9226G-20FMI-AE**   Industrial Rackmount L2 Managed Switch with 48 V_{DC}
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Note: For SFP copper type, only 1000Mbps supported.

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