EKI-9228G-8CMI

Industrial Rackmount L2 Managed Switch with 48 V$_{DC}$

EKI-9228G-8COI

Industrial Rackmount L2 Managed Switch with AC/$_{DC}$

Features

- 16 x Gigabit RJ-45 ports + 4 Gigabit x SFP ports + 8 x Gigabit combo 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 x relay output
- Wide-range operating temperature of -40 ~ 85°C

Introduction

The EKI-9228G series are designed for power substation automation applications requiring IEC 61850-3 certification. Thanks to its -40 ~ 85°C wide operating temperature range, these switches can operate reliably in extremely harsh environments. Designed with 16 Gigabit ports, 4 Gigabit SFP ports, and 8 Gigabit ports, it provides abundant and flexible connection options. Finally, the EKI-9228G series feature dual power inputs to ensure system stability and 2 relay outputs 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**　Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps

Interface

- **Connectors**　16 x RJ45 (Ethernet) 8 x RJ45/SFP (mini-GBIC) combo ports 4 x SFP Ports 3-pin removable screw terminal (Power) 4-pin removable screw terminal (Relay)
- **LED Indicators**　10/100T (X): 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 kits
- **Dimensions (W x H x D)**　442 x 44 x 352 mm (17.4" x 1.73" x 13.85")
- **Mounting**　1U 19" Rack mount

Power

- **Power Consumption**　EKI-9228G-8CMI: 19.21 W @ 48V EKI-9228G-8COI: 19.24 W @ 110V$_{AC}$
- **Power Input**　EKI-9228G-8CMI: 48V$_{DC}$ EKI-9228G-8COI: 90 ~ 264AC/88 ~ 370V$_{DC}$
- **Fault Output**　2 Relay Outputs

Protection

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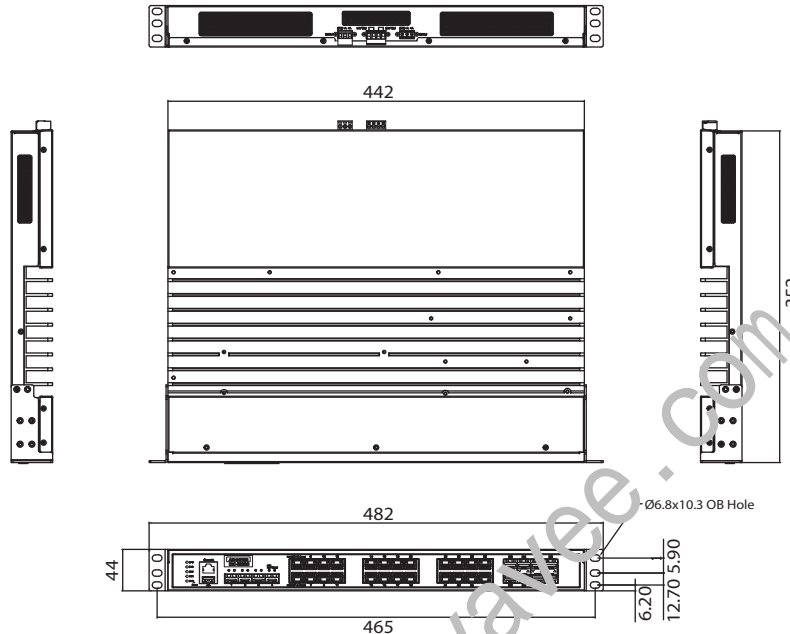- **Overload Current**　Present

Environment

- **Operating Temperature**　-40 ~ 85°C (-40 ~ 185°F)
- **Storage Temperature**　-40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity**　10 ~ 95% (non-condensing)
- **Storage Humidity**　10 ~ 95% (non-condensing)

Certification

- **Safety**　UL 60950
- **EMI**　CE FCC EN55022 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
- **Shock**　IEC 60068-2-27
- **Freefall**　IEC 60068-2-32
- **Vibration**　IEC 60068-2-6
- **Power Automation**　IEC 61850-3

ADVANTECH　Industrial Ethernet Solutions

All product specifications are subject to change without notice.　　　　　Last updated: 27-Jun-2018

Dimensions

Unit: mm

442

352

482

44

465

Ø6.8x10.3 OB Hole

5.90

6.20

12.70

L2 Features

- **L2 MAC Address**   16K
- **Jumbo Frame**   9KB
- **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 (Weighted Round Robin), SP (Strict Priority)
- **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-9228G-8CMI-AE**   Ind. Rackmount L2 Managed Switch with 48VDC
- **EKI-9228G-8COI-AE**   Ind. Rackmount L2 Managed Switch with AC/DC