

# EKI-9510E-2GMH EKI-9510E-2GML

## EN 50155 10-port Managed M12 Ethernet Switch 72/96/110 V<sub>DC</sub> EN 50155 10-port Managed M12 Ethernet Switch 24/48 V<sub>DC</sub>



CE FCC

### Features

- Complies with EN50155
- 8 x M12 D-Coded 10/100Mbps ports + 2 x M12 X-Coded 10/100/1000Mbps ports with Bypass function
- Power Input  
EKI-9510E-2GMH: 72/96/110 V<sub>DC</sub>  
EKI-9510E-2GML: 24/48 V<sub>DC</sub>
- Operating Voltage  
EKI-9510E-2GMH: 50.4~137.5 V<sub>DC</sub>  
EKI-9510E-2GML: 16.8~60 V<sub>DC</sub>
- X-Ring Pro supports rapid and predictable convergence
- M12 connector with IP40 protection

### Introduction

EKI-9500 series switch is designed for railway application, with rugged and high EMC performance. EKI-9500 series is the suitable networking solution for rolling stock and wayside applications. EKI-9500 series provide M12 connectors for Ethernet/ console/ relay/ power-input connections to ensure tight & robust connectivity, to guarantee reliable operation against environmental disturbances, such as vibration and shock on train. EKI-9510E-2GMH & EKI-9510E-2GML is a Managed Ethernet switch, it provides 8 x Fast Ethernet M12 D-code interface. It also provides 2 x Gigabit Ethernet M12 X-code interface with Bypass function, to increase the reliability of the network. EKI-9510E-2GMH/ ML features a "flat" design, can be easy deployed with its slender size and let network deployment more simple in crowded carriage/ cabinet.

### Specifications

#### Interface

- I/O Port** 8 x M12 D-Coded 10/100Mbps ports +  
2 x M12 X-Coded 10/100/1000Mbps ports with  
Bypass function
- Console port** M12 A-Coded
- Power Connector** M12 A-Coded

#### Physical

- Enclosure** Aluminum Shell
- Protection Class** IP 40
- Installation** Wall Mount
- Dimensions (W x D x H)** 216 x 132 x 59.3 mm
- Weight** 1.5kg

#### LED Display

- System LEDs** PWR1, PWR2, SYS, R.M., Alarm

#### Environment

- Operating Temperature** -40 ~ 70°C (-40 ~ 158°F)
- Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- Ambient Relative Humidity** 10~ 95% (non-condensing)

#### Power

- Power Consumption** 10 Watts
- Power Input** EKI-9510E-2GMH: 72/96/110 V<sub>DC</sub>  
EKI-9510E-2GML: 24/48 V<sub>DC</sub>
- Operating Voltage** EKI-9510E-2GMH: 50.4~137.5 V<sub>DC</sub>  
EKI-9510E-2GML: 16.8~60 V<sub>DC</sub>  
Dual inputs Supports Overload Current Protection  
Supports Reverse Polarity Protection

#### Certification

- EMI** FCC Part 15 Subpart B Class A  
CE EN55032 (CISPR)  
EN55024 Class A
- EMS** EN61000-4-2 (ESD); EN61000-4-3 (RS);  
EN61000-4-4 (EFT); EN61000-4-5 (Surge);  
EN61000-4-6 (CS)
- Shock** IEC 61373
- Freefall** IEC 60068-2-32
- Vibration** IEC 61373
- Certificate** EN 50155; EN50121-3-2

#### L2 Features

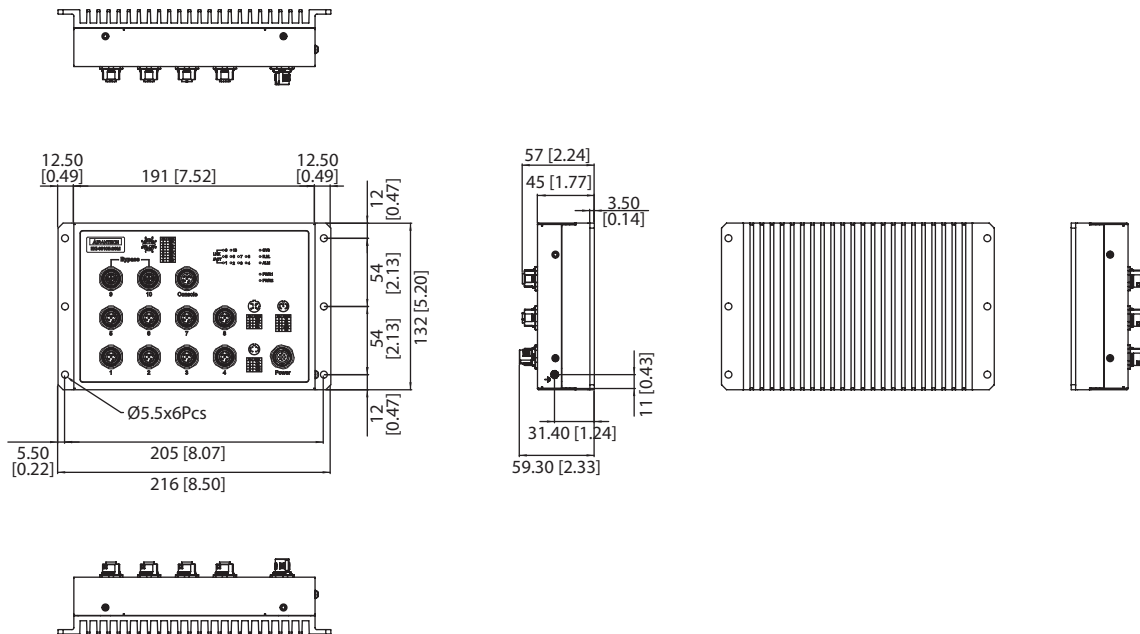
- L2 MAC Address** 8K
- Jumbo Frame** 9KB
- VLAN Group** 256 (VLAN ID 1~4093)
- VLAN** 802.1Q VLAN, GVRP
- Port Mirroring** Per port, Multi-source port
- IP Multicast** IGMP Snooping v1/v2/v3, MLD Snooping, IGMP  
Immediate leave
- Storm Control** Broadcast, Multicast, Unknown unicast
- Redundancy Protocol** 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
- Link Aggregation** IEEE 802.3ad Dynamic Port Trunking, Static Port  
Trunking

## Dimensions

Unit: mm [inch]



### Security

- **Port Security** Static, Dynamic
- **Authentication** 802.1x (Port-Based, MAC-Based), RADIUS, TACACS+
- **Advanced Security** IP Source Guard

### Management

- **DHCP** Client, Server, 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 server/client

### Ordering Information

- **EKI-9510E-2GMH-AE** 8 x M12 D-Coded + 2 x M12 X-Coded Managed Ethernet Switch, 72/96/110V<sub>DC</sub> dual power input
- **EKI-9510E-2GML-AE** 8 x M12 D-Coded + 2 x M12 X-Coded Managed Ethernet Switch, 24/48V<sub>DC</sub> dual power input

### Accessories

| PN                 |  | Description  |
|--------------------|--|--|
| OPT1-M12-CRP-4MD   |  | Phoenix Contact M12 D-code 4 pin Male crimp type connector   |
| OPT1-M12-CRP-8MX   |  | Phoenix Contact M12 X-code 8 pin Male crimp type connector   |
| OPT1-M12-CRP-5MA   |  | Phoenix Contact M12 A-code 5 pin Male crimp type connector   |
| OPT1-M12-CRP-4FA   |  | Phoenix Contact M12 A-code 4 pin Female crimp type connector |
| OPT1-M12C-4MD-150R |  | M12 D-code 4 pin Male to RJ45, cable length:1.5m             |
| OPT1-M12C-8MX-150R |  | M12 X-code 8 pin Male to RJ45, cable length:1.5m             |
| OPT1-M12C-5MA-DB9  |  | M12 A-code 5 pin Male to DB9 console, cable length:1.5m      |
| OPT1-M12C-4FA-100  |  | M12 A-code 4 pin Female to 1m cable                          |
| 1990023703S000     |  | M12 waterproof CAP (1pc.)                                    |