EKI-9516D-WV

EN 50155 16-port Managed Ethernet Switch



Features

- Complies with EN50155
- All 10/100 Mbps connections support dual ring protection and non-blocking traffic forwarding
- X-Ring Pro supports rapid and predictable convergence
- Provides M12 connector with IP67 protection
- Operating Temperature: -40 ~ 70° C
- Wide Range Power Input (24/36/48/72/96/110 V_{DC})









Introduction

EKI-9516D M12 Managed Ethernet Switch is designed for railway applications, including rolling stock. EKI-9516D switch uses M12 connectors to ensure tight, robust connections, and to guarantee reliable operation against environmental disturbances, such as vibration and shock. EKI-9516D provides 16 10/100 Mbps Ethernet M12 ports. In addition, EKI-9516D provides a wide power input range of 24/36/48/72/96/110 V_{DC}; the dual, isolated power input increases the reliability of your communications system. The -40 to 70° C operating temperature and IP67-rated waterproof enclosure allow deployment in harsh environments. EKI-9516D is compliant with the essential sections of the European railway standard EN 50155, EN50121-3-2 covering operating temperature, power input voltage, surge, ESD, and vibration, making the switches suitable for a variety of industrial applications.

Specifications

Interface

 I/O Port 16 x 10/100Base-T M12 D-Code

 Console Port M12 A-Code F/W Backup Port USB (M12 A-Code) Power Connector M23 6 pin

Physical

 Enclosure Aluminum Shell Protection Class IP 67

Installation

Wall Mount, DIN Rail (Optional) **Dimensions (W x D x H)** 254 x 174 x 64.5 (mm)

Weight 3.6 kg

LED Display

System LEDs PWR1, PWR2, SYS, CFG, ALM

Port LED Data

Environment

• Operating Temperature $-40 \sim 70^{\circ}\text{C} (-40 \sim 158^{\circ}\text{F})$ Storage Temperature -40 ~ 85°C (-40 ~ 185°F) Ambient Relative 5 ~ 95% (non-condensing) Humidity

Power

 Power Consumption ~ 26.4 Watts (System)

 $24/36/48/72/96/110\ V_{DC}\ dual\ inputs$ Power Input

Supports Overload Current Protection Supports Reverse Polarity Protection

Certification

= EMI FCC Part 15 Subpart B Class A

CE EN55022 (CISPR) EN55024 Class A

EN61000-4-2 (ESD); EN61000-4-3 (RS); EN61000-4-4 EMS

(EFT); EN61000-4-5 (Surge); EN61000-4-6 (CS)

Shock IEC 61373 IEC 60068-2-32 Freefall Vibration IEC 61373

EN 50155; EN50121-3-2 Rail Traffic

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

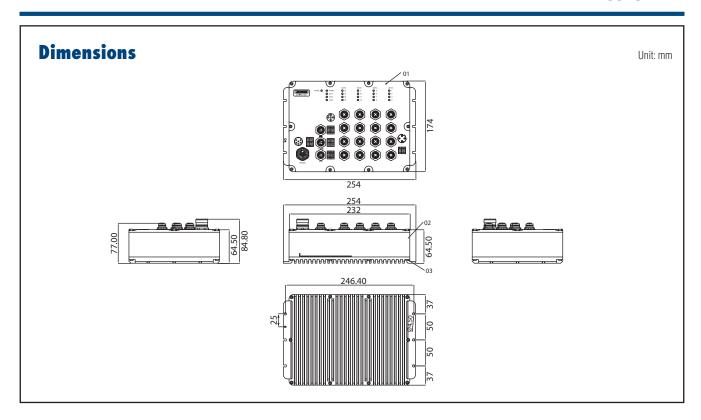
Port Mirroring Per port, Multi-source port

IGMP Snooping v1/v2/v3, MLD Snooping, IGMP IP Multicast

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



OoS

Priority Queue WRR (Weighted Round Robin), SP (Strict Priority)
Scheduling

• 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 rulesAdvanced 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-9516D-CFIDW10E 16x M12 Managed Ethernet Switch, including 24/36/48/72/96/110 V_{pc} dual power inputs

EKI-9516/9512 Series Selection Table

Products		Ports Combination				Power Input Range			Others
Model Name	Ordering P/N	PoE,10/100/ 1000 Mbps M12 X-Coded	10/100/ 1000 Mbps M12 X-Coded	PoE,10/100 Mbps M12 D-Coded	10/100 Mbps M12 D-Coded	HV (72V/96V/110 VDC)	LV (24V/36V/48 V _{DC})	WV (24/36/48/72V/ 96V/110 V _{DC})	Conformal Coating
EKI-9516P-HV	EKI-9516-P0IDH10E	12	4			✓			✓
EKI-9516P-LV	EKI-9516-P0IDL10E	12	4				✓		✓
EKI-9516-WV	EKI-9516-C0IDW10E		16					✓	✓
EKI-9512P-HV	EKI-9512-P0IDH10E	8	4			✓			✓
EKI-9512P-LV	EKI-9512-P0IDL10E	8	4				✓		✓
EKI-9512-WV	EKI-9512-C0IDW10E		12					✓	✓
EKI-9516DP-HV	EKI-9516-PFIDH10E			12	4	✓			✓
EKI-9516DP-LV	EKI-9516-PFIDL10E			12	4		✓		✓
EKI-9516D-WV	EKI-9516-CFIDW10E				16			✓	✓
EKI-9512DP-HV	EKI-9512-PFIDH10E			8	4	✓			✓
EKI-9512DP-LV	EKI-9512-PFIDL10E			8	4		✓		✓
EKI-9512D-WV	EKI-9512-CFIDW10E				12			✓	✓