



## KIEN1000

8 Port Unmanaged  
Industrial Ethernet Switch

CE, FCC, UL, RoHS

### Overview

The KIEN1000 8-port unmanaged industrial Ethernet rail switch is specially designed for industrial applications. It provides two redundant TP ports that can be connected into a self-healing ring network, and six common TP ports. With the plug-and-play feature, it can be started up shortly. The KIEN1000 offers dual redundant 24VDC power inputs.

### Features

- 10/100Base-T/TX Ethernet ports, adaptive, full/half duplex, Auto MDI/MDI-X connection
- DT-Ring, high speed redundant ring network (recovery time <100ms)
- Alarm relay output for power.
- Store-and-forward switching mode conforms to IEEE802.3/802.U/802.3X
- EMC industrial level 4, complies with IEC61850 standard.
- Dual redundant 24VDC power supply (DC 18V~36V)
- Redundant power input.
- Ribbed Aluminum housing for heat dissipation (fanless); Operation at -40 to 75°C(-40 to 167°F)
- IP40 protection class
- Easy DIN-Rail mounting or optional wall-mounting

### Functions

#### 100Mbit/s TP Cable Redundancy

KIEN1000 offers 2 redundant Ethernet ports to be connected into a redundant ring network through TP cable. The system will be able to re-configure within 300ms once disconnection occurs.

#### LED Indicator

The LEDs of the front panel indicate the port status correctly including transmission rate, link status and system status.

#### Layer-2 Switching

Switches work in two ways: Cut-Through and Store-and-Forward. In Cut-Through, a data packet is immediately relayed after detecting the target address; in Store-and-Forward, a data packet is first read-in completely and checked for errors before the switch relays the same. KIEN1000 employs Store-and-Forward—a switching mode widely used.

#### Power Alarm

In the event of power failure in the KIEN1000, an alarm signal will be sent out through an alarm terminal. The terminal is open when there is no alarm and is closed when the alarm sounds.

### Technical Specifications

#### Standard

IEEE802.3  
IEEE802.3U  
IEEE802.3X  
Store and forward switching mode

#### Network

Ring, chain and star network topology.

#### Service

Diagnostics: LEDs (power, link status, port rate) fault relays (24VDC/1A)

#### Interface

2 x 100Mbit/s, TP cable, RJ45 socket (shielded), redundant, auto-Negotiation  
6 x 10/100Base-T/TX, TP cable, RJ45 socket (shielded), Auto-Negotiation, auto MDI/MDI-X connection

#### Power Requirements

Power input: 24VDC (18-36VDC) dual redundant, 110VDC, 220VAC  
Power consumption: <6W

#### Physical Characteristics

Casing: IP40 protection  
Ribbed Aluminum housing fanless design  
Dimensions(WxHxD): 55.4x142x120.5 mm (2.18x5.59x4.74 in.)  
Weight: 1000g (2.205 pounds)  
Installation: DIN-Rail or wall mounting

#### Environmental Limits

Operating Temperature: -40 to 75°C(-40 to 167°F)  
Storage Temperature: -45 to 85°C (-49 to 185°F)  
Ambient Relative Humidity: 0 to 95% (non-condensing)

#### Approvals

EMC interference immunity:  
IEC61000-4-2(ESD): ±4KV contact discharge, ±8KV air discharge  
IEC61000-4-3(RS): 10V/M (80-1000MHz)  
IEC61000-4-4(EFT): ±2KV power line, ±1KV data line  
IEC61000-4-5(Surge): ±2KV(line/earth), ±1KV (line/line)power line, ±1KV data line  
IEC61000-4-6(CS): 3V(10KHZ~150KHZ), 10V(150KHZ~80KHZ)

#### EMC emitted immunity:

FCC CFR47 Part15: FCC CFR47 Part 15 Class A  
EN55022: EN55022 Class A  
UL60950, CE, FCC, UL, ROHS

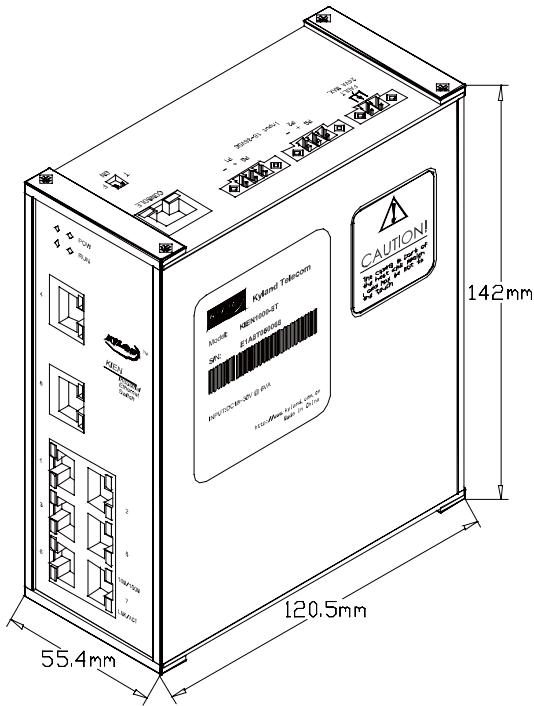
#### MTBF

35 years

#### Warranty

5 Years

### Mechanical Drawing



### Ordering Information

Model	Description
KIEN1000-8TX	2 x 100Mbit/s, redundant, TP cable 6 x 10/100Base-T/TX, TP cable