

KIEN1009**9 Port 100M Unmanaged Industrial Ethernet Switch**

- Green Ethernet Solution with ultra low power consumption design;
- As low as 4.4 watts full load power consumption;
- 6 10/100Base-T(X) RJ45 ports and 3 100Base-FX SC/ST/FC ports;
- Standard 0 to 60°C or wide -40 to 85°C operating temperature;
- EMC performance reaches industrial level 4;
- IP40 protection class;
- Rugged hardware design with UL508 and Class I Div 2 certifications

**Overview**

The KIEN1009 series are Kyland new ultra low power consumption Green Ethernet solution. Its full load power consumption is as low as 4.4 watts. The KIEN1009 switches are available with a standard operating temperature range from 0 to 60°C, or with a wide operating temperature range from -40 to 85°C. All models are with IP40 protection class and meet EMC industrial level 4 requirements.

KIEN1009 series support IEEE 802.3i, IEEE802.3u and IEEE802.3x with 10/100M full/half-duplex, MDI/MDI-X auto-sensing. The KIEN1009 switches provide 9-36VDC, 18-72VDC/13-51VAC redundant power inputs. These switches are specially designed for harsh industrial environments certified by UL508 and UL Class I Div 2 certifications.

Technical Specifications**Standard**

IEEE802.3i
IEEE802.3u
IEEE802.3x

Interface

100Base-FX ports: up to 3 100Base-FX, single mode/multimode ports (SC/ST/FC connector)
10/100Base-TX ports: up to 8 10/100Base-T(X) Ethernet RJ45 ports

Switch Properties

MAC Table: 8K
Packet Buffer: 1Mbit
Packet Forwarding Rate: 1.4Mpps
Switching Delay: <5μs

LED

LEDs in front panel:
Power LED: PWR (KIEN1009-8T-E); PWR1, PWR2 (others)
Interface LED: Link/ACT, Speed (RJ45 port)

Transmission Distance

Twisted Pair: 100m (standard CAT5, CAT5e network cable)
Multimode Fiber: 1310nm, 5km (100M)
Single Mode Fiber: 1310nm, 40km/60km (100M);
1550nm, 60km/80km

Physical Characteristics

Housing: Metal, fanless
Protection Class: IP40
Dimensions: 53.6×135×106.5 mm (W×H×D) (2.11×5.31×4.19 in)
Weight: 0.76kg (1.676 pound)
Mounting: DIN-Rail or wall mounting

Environmental Limits

Operating Temperature: 0 to 60°C (32 to 140°F) (KIEN1009-8T-E)
-40 to 85°C (-40 to 185°F) (others)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Power Requirements

Power Input:
12VDC/24VDC (9-36VDC),
24VDC/48VDC/24VAC (18-72VDC/13-51VAC)
Power terminal:
3-pin 5.08mm-spacing plug-in terminal block (KIEN1009-8T-E)
5-pin 5.08mm-spacing plug-in terminal block (others)
Power Consumption:
KIEN1009-8T: 3.5W
KIEN1009-8T-E: 3.5W
KIEN1009-1S/M-7T: 3.8W
KIEN1009-2S/M-6T: 4.1W
KIEN1009-3S/M-6T: 4.4W

Overload Protection: Support
Reverse Connection Protection: Support
Redundancy Protection: Support

MTBF

397,000 hrs

Warranty

5 years

Approvals

Safety: UL508 (Pending)
Hazardous Location: Class 1 Div 2 (Pending)
EMC: CE, FCC

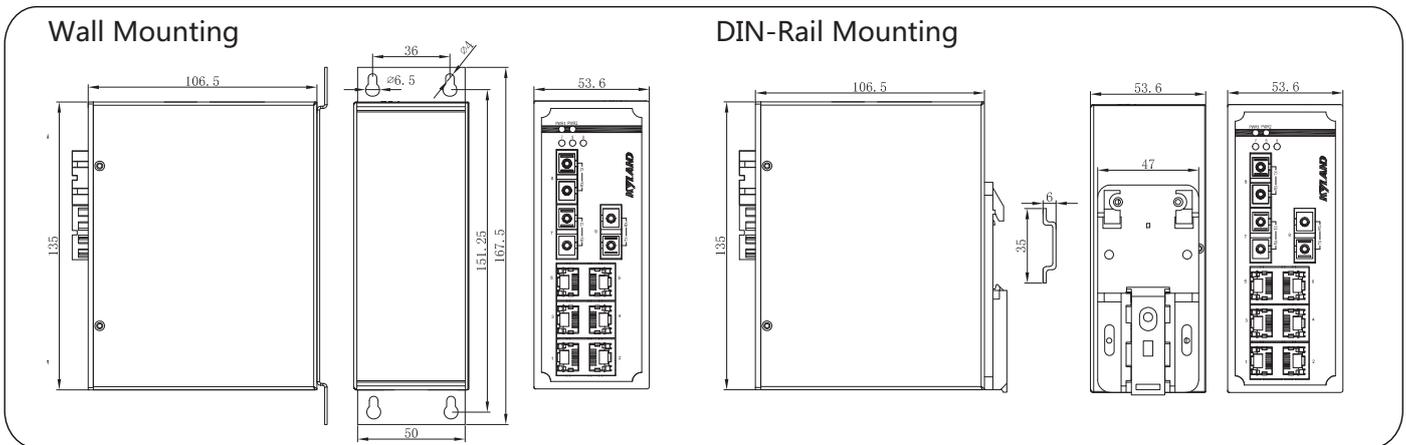
Industrial Standard

EMI:
FCC CFR47 Part 15, EN55022/CISPR22, Class A
EMS:
IEC61000-4-2(ESD): ±8kV (contact), ±15kV (air)
IEC61000-4-3(RS): 10V/m (80MHz-2GHz)
IEC61000-4-4(EFT): Power Port ±4kV; Data Port ±2kV
IEC61000-4-5(Surge): Power Port: ±2kV/DM, ±4kV/CM, Data Port: ±2kV
IEC61000-4-6(CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)
IEC61000-4-16(Common mode conduction): 30V (cont.); 300V (1s)

Machinery:
IEC68-2-6 (vibration)
IEC68-2-27 (shock)
IEC68-2-32 (free fall)

Industry: IEC61000-6-2
Railway: EN50155, EN50121-4

Mechanical Drawing



Ordering Information

Please Select

Model	Standard Temperature (0 to 60°C)	Wide Temperature (-40 to 85°C)	Port Interface			Fiber Connector			Power Supply	
			10/100BaseTX	100BaseFX Multi-mode	100BaseFX Single-mode	SC	ST	FC	9-36 VDC	18-72VDC/ 13-51VAC
KIEN1009-8T-E	✓	-	8	-	-	-	-	-	-	Single power input
KIEN1009-8T	-	✓	8	-	-	-	-	-	-	Dual power inputs
KIEN1009-1S-7T	-	✓	7	-	1	-	-	-	-	Dual power inputs
KIEN1009-1M-7T	-	✓	7	1	-	-	-	-	-	Dual power inputs
KIEN1009-2S-6T	-	✓	6	-	2	-	-	-	-	Dual power inputs
KIEN1009-2M-6T	-	✓	6	2	-	-	-	-	-	Dual power inputs
KIEN1009-3S-6T	-	✓	6	-	3	-	-	-	-	Dual power inputs
KIEN1009-3M-6T	-	✓	6	3	-	-	-	-	-	Dual power inputs

Accessories

DT-BGAZ-A-02 Wall mounting panel
DT-JJAZ-A-01 Rack mounting panel
DT-FCZ-RJ45-01 RJ45 dustproof cover

Order Codes

KIEN1009A- _____ - _____ - _____ - _____ - _____ - _____
FX Connector Distance TX Economic PS

FX: Fiber Ports

1M= 1 multi mode fiber port
1S= 1 single mode fiber port
2M= 2 multi mode fiber ports
2S= 2 single mode fiber ports
3M= 3 multi mode fiber ports
3S= 3 single mode fiber ports
(Please refer to the order information on available port combinations.)

Connector: Fiber Connector

FC= FC connector
SC= SC connector
ST= ST connector
SD= single fiber bi-direction, only for single mode, only SC connector (different price)

Distance: Fiber Distance

2= multi mode, 850nm, 2km
5 (or None)= multi mode, 1310nm, 5km (multi mode default)
40 (or None)= single mode, 1310nm, 40km (single mode default)
60= single mode, 1310nm, 60km (different price)
60L= single mode, 1550nm, 60km (different price)
80L= single mode, 1550nm, 80km (different price)
5T3R= single fiber bi-direction, 1550T/1310R, 20km (different price)
5R3T= single fiber bi-direction, 1550R/1310T, 20km (different price)
40/5T3R= single fiber bi-direction, 1550T/1310R, 40km (different price)
40/5R3T= single fiber bi-direction, 1550R/1310T, 40km (different price)
80/5T3R= single fiber bi-direction, 1550T/1310R, 80km (different price)
80/5R3T= single fiber bi-direction, 1550R/1310T, 80km (different price)

TX: Copper Ports

6T= 6 10/100Base-T(X) ports, RJ45 connector
7T= 7 10/100Base-T(X) ports, RJ45 connector
8T= 8 10/100Base-T(X) ports, RJ45 connector
(Please refer to the order information on available port combinations.)

Economic: Economic Version

E= 0 to 60°C standard operating temperature, power supply is single power input (only KIEN1005-5T has E version)
None= -40 to 85°C wide operating temperature, power supply is dual power inputs

PS: Power Supply

12W=12VDC/24VDC (9-36VDC)
24A= 24VDC/48VDC/24VAC (18-72VDC/13-51VAC)
Economic version has single power input, others have dual power inputs.

Example order codes

KIEN1009A-1M-SC-7T-24A
1 multi mode fiber ports, SC connectors, 1310nm 5km, 7 10/100Base-TX RJ45 ports, 24VDC/48VDC/24VAC (18-72VDC/13-51VAC)
power supply, dual power inputs, -40 to 85°C wide operating temperature