

KIEN1009**9 Port Gigabit Unmanaged Din-Rail Switch**

- Green Ethernet solution with ultra low power consumption design
- As low as 3.5 watts full load power consumption
- 1 Gigabit SFP slot, 6 10/100Base-TX ports and 3 Fast Ethernet fiber/RJ45 optional ports
- Redundant AC/DC power inputs with wide voltage range
- Both standard and wide operating temperature
- EMC performance reaches industrial level 4
- IP40 protection class
- UL508 (pending), Class 1 Div 2 (pending), CE, FCC certificates

**Overview**

The KIEN1009 series are Kyland new ultra low power consumption Green Ethernet solution. Its full load power consumption is as low as 3.5 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 24VDC (18-36VDC) (KIEN1009-8T-E), 24VAC/DC (18-50VAC/18-72VDC) (others). These switches are specially designed for harsh industrial environments certified by UL508 and UL Class 1 Div 2 certifications.

Technical Specifications**Standard**

IEEE 802.3i, IEEE 802.3u

Switch Properties

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

Interface

Gigabit Ethernet Ports: max 1 1000Base SFP slot
Fast Ethernet Fiber Ports: max 3 100Base-FX, SM/MM ports, FC/SC/ST connector
Fast Ethernet RJ45 Ports: max 8 10/100Base-TX RJ45 ports

LED

LEDs on Front Panel:
Power LED: PWR (KIEN1009-E-8T)
PWR1, PWR2 (other models)
Interface LED: Link/ACT, Speed (RJ45 port)

Transmission Distance

Twisted Pair: 100m (Standard CAT5, CAT5e network cable)

Multi Mode Fiber: 1310nm, 5km (100M)

850nm, 550m (1000M)

Single Mode Fiber: 1310nm, 40km/60km (100M)

1550nm, 60km/80km (100M)

1310nm, 10km/40km (1000M)

1550nm, 60km/80km (1000M)

Power Requirements

Power Input:

24VDC (18-36VDC) (KIEN1009-E-8T);

24VAC/DC (18-50VAC/18-72VDC) (other models)

Power Terminal:

3-pin 5.08mm-spacing plug-in terminal block (KIEN1009-E-8T);

5-pin 5.08mm-spacing plug-in terminal block (other models)

Power Consumption:

KIEN1009-8T: 3.5W

KIEN1009-E-8T: 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

Physical Characteristics

Housing: Metal, fanless

Protection Class: IP40

Dimensions (W×H×D): 53.6×135×106.5 mm (2.11×5.31×4.19 in.)

Weight: 0.76kg (1.676 pound)

Mounting: DIN-Rail or Panel mounting

Environmental Limits

Operating Temperature:

0 to 60°C (32 to 140°F) (KIEN1009-E-8T)

-40 to 85°C (-40 to 185°F) (other models)

Storage Temperature: -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

MTBF

454,730 hrs

Warranty

5 years

Approvals

UL508 (pending), Class 1 Div 2 (pending), CE, FCC

Industrial Standard

EMI:
FCC CFR47 Part 15, EN55022/CISPR22, Class A

EMS:

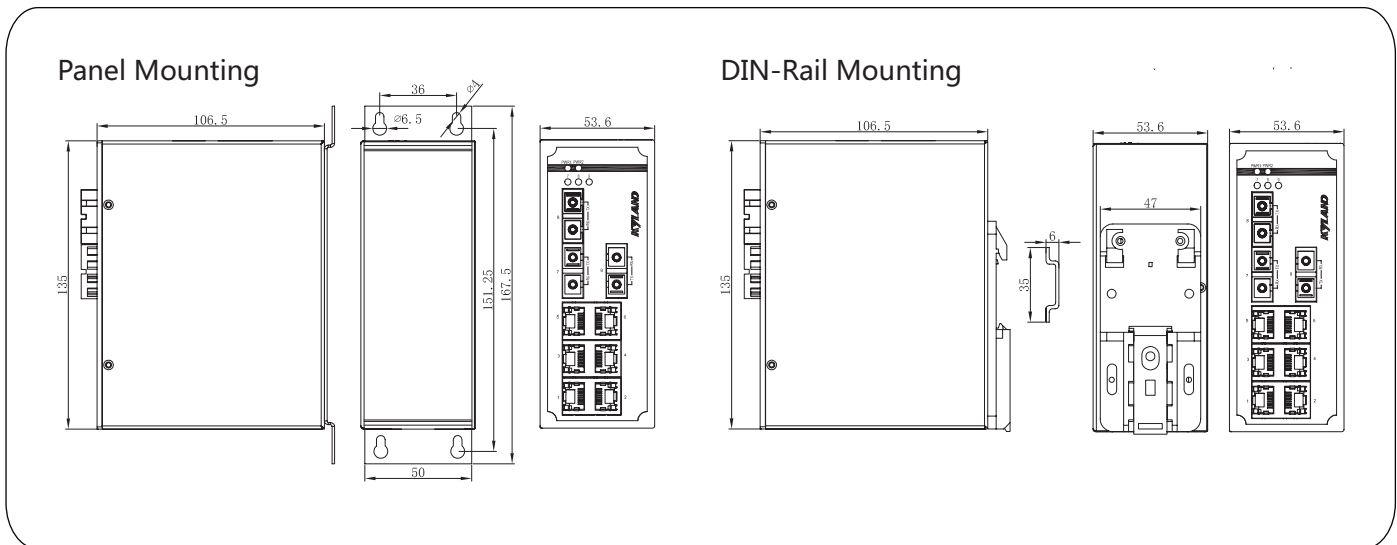
IEC61000-4-2 (ESD): ±8kV (contact), ±15kV (air)
IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)
IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV
IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV
IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)
IEC61000-4-16 (Common mode conduction):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

Machinery: IEC60068-2-6 (Vibration), IEC60068-2-27 (Shock), IEC60068-2-32 (Free Fall)

Industry: IEC61000-6-2

Railway: EN50155, EN50121-4

Mechanical Drawing



Ordering Information

Model	Port				Fiber Connector			Power Supply	
	1000Base SFP	100Base-FX Single Mode	100BaseFX Multi-mode	10/100Base-TX	SC	ST	FC	18-36VDC	18-50VAC/18-72VDC
KIEN1009-E-8T	--	--	--	8	--	--	--	Single power input	--
KIEN1009-8T	--	--	--	8	--	--	--	--	Dual power inputs
KIEN1009-1S-7T	--	1	--	7				--	Dual power inputs
KIEN1009-1M-7T	--	--	1	7				--	Dual power inputs
KIEN1009-2S-6T	--	2	--	6				--	Dual power inputs
KIEN1009-2M-6T	--	--	2	6				--	Dual power inputs
KIEN1009-3S-6T	--	3	--	6				--	Dual power inputs
KIEN1009-3M-6T	--	--	3	6				--	Dual power inputs
KIEN1009-1GX-2S-6T	1	2	--	6				--	Dual power inputs
KIEN1009-1GX-2M-6T	1	--	2	6				--	Dual power inputs
KIEN1009-1GX-8T	1	--	--	8	--	--	--	--	Dual power inputs

Note: The operating temperature of KIEN1009-E-8T model is 0 to 60°C.

Please Select

Accessories

Model	Description
DT-BGAZ-02	Panel mounting kit
DT-FCZ-RJ45-01	RJ45 dustproof shield

Order Codes

KIEN1009- _____ - _____ - _____ - _____ - _____ - _____ - _____
Economic GX FX Connector Distance TX PS

Economic: Economic Version

E= 0 to 60°C standard operating temperature, power supply is single power input (only KIEN1009-8T has E version, proceed to TX part)
 None= -40 to 85°C wide operating temperature, power supply is dual power inputs

GX: Gigabit SFP Ports

1GX= 1 1000Base-SFP port
 None= No 1000Base-SFP port

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.)

PS: Power Supply

24=24VDC (18-36VDC), single power input (only for Economic version)
 24A=24VAC/24VDC/48VDC (18-50VAC/18-72VDC), dual power inputs
 Economic version has single power input, others have dual power inputs.

Example order codes

KIEN1009-1M-SC-7T-24A
 1 multi mode fiber ports, SC connectors, 1310nm 5km, 7 10/100Base-TX RJ45 ports, 24VAC/24VDC/48VDC (18-50VAC/18-72VDC) power supply, dual power inputs, -40 to 85°C wide operating temperature