KYLAND

Industrializing the Ethernet
Simplifying Industrial Communication

KIEN1005A
5 Port 100M Unmanaged Industrial Ethernet Switch

Version: 110325

KIEN1005A
5 Port 100M Unmanaged Industrial Ethernet Switch

- Green Ethernet Solution with ultra low power consumption design;
- As low as 2.1 watts full load power consumption;
- 5 10/100Base-T(X) or 1 100Base-FX (multi/single-mode, FC/SC/ST connector) + 4 10/100Base-T(X) RJ45 ports;
- EMC performance reaches industrial level 4;
- IP40 protection class;
- Standard 0 to 60˚C or wide -40 to 85˚C operating temperature;
- Rugged hardware design with UL508, UL Class 1 Div 2 certifications

Overview

The KIEN1005A series are Kyland new ultra low power consumption Green Ethernet series, its full load power consumption is as low as 2.1 watts. The KIEN1005A 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.

KIEN1005A series support IEEE 802.3 and IEEE802.3u with 10/100M full/half-duplex, MDI/MDI-X auto-sensing. The KIEN1005A 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 1 Div 2 certifications.

Technical Specifications

Standard
IEEE802.3
IEEE802.3u
IEEE802.3x

Switch Properties
MAC Table: 2K
Packet Buffer: 1Mbit
Throughput: 1.5Mpps

Interface
100Base-FX ports: 1 100Base-FX, single mode/multimode ports (SC/ST/FC connector)
10/100Base-TX ports: 4 or 5 10/100Base-TX Ethernet RJ45 ports

LED
Power LED:PWR (KIEN1005A-5T-E);PWR1,PWR2 (others)
Interface LED: Link/ACT, Speed (RJ45 port)

Transmission Distance
Twisted Pair: 0-100m (standard CAT5, CAT5e network cable)
Multimode Fiber: 1310nm, 0-5km (100M)
Single Mode Fiber: 1310nm, 40km;1550nm, 60km/80km

Power Requirements
Power Input:
9-36VDC, 18-72VDC/13-51VAC

Power terminal:
5-pin 5.08mm-spacing plug-in terminal block
3-pin 5.08mm-spacing plug-in terminal block (KIEN1005A-5T-E)

Power Consumption:
KIEN1005A-1S/M-4T<2.64W
KIEN1005A-5T<2.16W
KIEN1005A-5T-E<2.16W

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

Physical Characteristics
Housing: Metal, fanless
Protection Class: IP40
Dimensions: 30×115×91.5 mm (W×H×D)
                (1.18x4.52x3.60 in)
Weight: 0.7kg (1.543 pound)
Mounting: DIN-Rail or wall mounting

Environmental Limits
Operating Temperature:
-40 to 85˚C (-40 to 185˚F)
0 to 60˚C (32 to 140˚F)(KIEN1005A-5T-E)
Storage Temperature: -40 to 85˚C (-40 to 185˚F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

MTBF
430,000 hrs

Warranty
5 years

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

Industrial Standard
EMI:
FCC Part 15, CISPR (EN55022) class A

EMS:
IEC61000-4-2(ESD): contact discharge ±8KV, air discharge ±15KV
IEC61000-4-3(RS): 10V/m, 80MHz-2GHz
IEC61000-4-4(EFT): power line ±4KV; data line ±2KV
IEC61000-4-5(Surge) N-N: 2kV; N-G: 4Kv (1.2/50us, 8/20us)
IEC61000-4-6(CS): 10V, 0.15 80MHz
IEC61000-4-16 common mode conduct interference immunity:
30V cont. 300V, 1s

Machinery
Shock:IEC68-2-27, duration of the half-sine pulse: 11ms, peak acceleration: 300m/s2
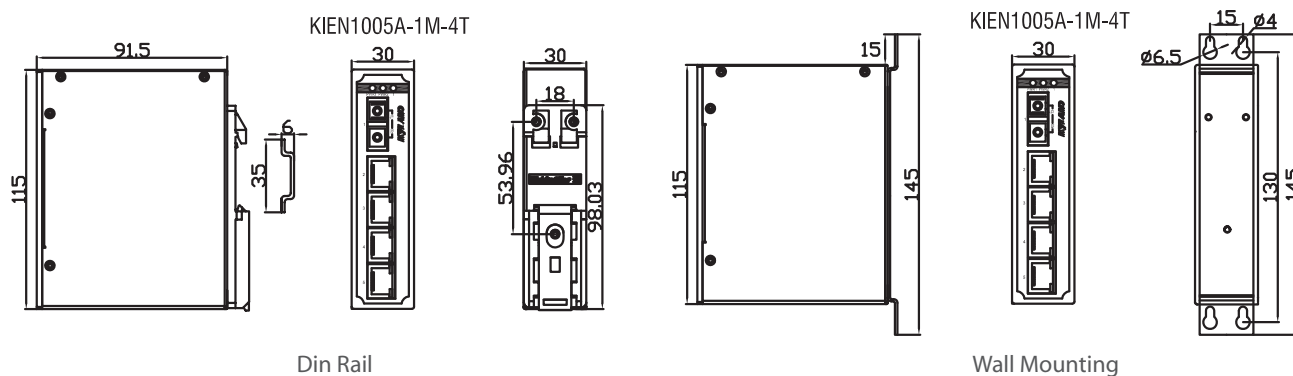Free Fall:IEC68-2-32, Mass<20Kg: 0.25m
Vibration:IEC68-2-6, vibration amplitude:7mm, acceleration:20-15, frequency range: 2-9HZ 9-200HZ 200-500HZ

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

Mechanical Drawing

KIEN1005A-1M-4T

KIEN1005A-1M-4T

Din Rail

Wall Mounting

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	9-36VDC	18-72VDC/ 13-51VAC
KIEN1005A-5T-E	√	–	5	–	–	–	–	–	Single power input	
KIEN1005A-5T	–	√	5	–	–	–	–	–	Dual power inputs	
KIEN1005A-1M-4T	–	√	4	1	–				Dual power inputs	
KIEN1005A-1S-4T	–	√	4	–	1				Dual power inputs	

Accessories

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

Please visit our website: www.kyland.cn for the latest updates.

Order Codes

KIEN1005A- ____ **-** _____ **-** _____ **-** _____ **-** _____ **-** ____

              FX   **Connector** **Distance**   **TX**   **Economic**   **PS**

FX: Fiber Ports
M= 1 multi mode fiber port
S= 1 single mode fiber port
(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
4T= 4 10/100Base-T(X) ports, RJ45 connector
5T= 5 10/100Base-T(X) ports, RJ45 connector
(Please refer to the order information on available port combinations.)

Economic: Economic Version
E= 0 to 60C standard operating temperature, power supply is single power input (only KIEN1005-5T has E version)
None= -40 to 85C 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
KIEN1005A-M-SC-5T-24A
1 multi mode fiber ports, SC connectors, 1310nm 5km, 5 10/100Base-TX RJ45 ports, 24VDC/48VDC/24VAC (18-72VDC/13-51VAC)
power supply, dual power inputs, -40 to 85˚C wide operating temperature

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