

# KIEN3016

## Overview

KIEN3016 economical unmanaged industrial Ethernet switch is specially designed for star networking structure, and developed for such harsh industrial environments as Telecommunication, Electric Power, Factory Automation, Industrial Automation DCS System etc, where you may be using Business Switch painfully.

KIEN3016 offers sixteen 10Base-T/100Base-TX RJ45 ports, in addition, 4 optical fiber slots provide 0 to 4 pair of 100Base-FX for multimode or single mode fiber, which make it possible to get the equipment connected.



## Features

### Economical Industrial Ethernet Switch

- 1.10/100Base-T/TX Ethernet ports, adaptive, full/half duplex, auto MDI/MDI-X connection.
- 2.100Base-FX fiber ports, single mode/multimode, full duplex.
- 3.Store-and-forward switching mode conforms to IEEE802.3/802.U/802.3X

### Optional Industrial Power

- 1.Industrial power supply of AC220V
- 2.Industrial DC power supply at various level(DC+24V、DC-48V,DC110V)
- 3.Reliable protection for EMC and against over-current/over-voltage.

### Rugged Design

- 1.Solid IP40 housing
- 2.Operation at -35°C to +75°C
- 3.Air humidity 10% to 95%
- 4.Stable rack-mounting.

## Main Functions

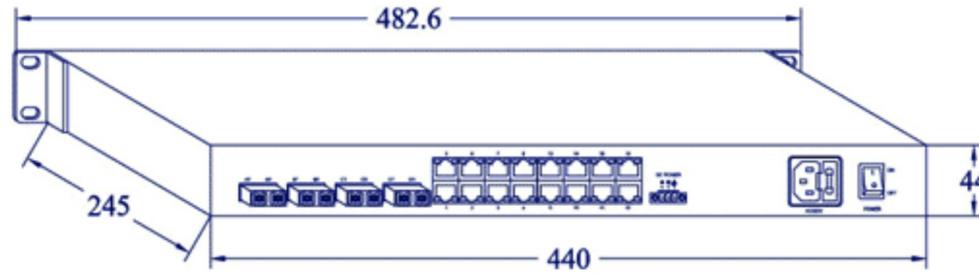
### LED Indicator

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 further 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. KIEN3016 employs Store-and-Forward that is a switching mode widely used.

Dimensions: 482.6mm x 44mm x 245mm (W x H x D)



## Parameters

### Product Description

Model: KIEN3016

Description: Economical, unmanaged Industrial Ethernet Switch, store and forward switching mode, Ethernet (10 Mbit/s) and Fast-Ethernet (100 Mbit/s)

Port Type and Quantity:

0-4 x 100Base-FX, optical fiber, full-duplex  
16 x 10 /100Base-T(X), TP cable, RJ45 Socket, adaptive, auto MD/MDI-X connection

### More Interface

Power Terminal: 11 x AC220V power terminal

### Network size – length of cable

Twisted pair (TP): 100m

Multimode fiber: Distance: 2-5km,

Wavelength: 1310nm Optical power: >-20dbm

Singlemode fiber: Distance: 40km(60km, 80km for special requirement)

Wavelength: 1310/1550nm Optical power: >-13dbm

### Network size – cascability

Line / star topology: Any

### Power requirements

Power input: AC220V, DC-48V, DC+24V, DC110V

Power consumption: <25W

### Performance

Transfer Rate: 148810pps

MAC Address Table Size: 8K

### Service

Diagnostics: LEDs(power, link status, port rate,)

Security: Port security (MAC based and IP based)

Other services: Broadcastlimiter

### Ambient conditions

Operating temperature: -35°C to +75°C

Storage/transport temperature: -45°C to +85°C

Relative humidity (non-condensing): 10% to 95%

MTBF: 10 years

### Mechanical construction

Dimensions (W x H x D): 482.6mm x 44mm x 245mm

Mounting: Rack-mounting (19' 1U)

Protection class: IP40

### EMC interference immunity

EN 61000-4-2 electrostatic discharge (ESD): ±4 kV contact discharge, ±8 kV air discharge

EN 61000-4-3 electromagnetic field: 10 V/m (80 – 1000 MHz)

EN 61000-4-4 fast transients (burst): ±2 KV power line, ±1 kV data line

EN 61000-4-5 surge voltage: Power line: ±2 kV (line/earth), ±1 kV (line/line), ±1 kV data line

EN 61000-4-6 conducted immunity: 3 V (10 kHz – 150 kHz), 10 V (150 kHz – 80 MHz)

### EMC emitted immunity

FCC CFR47 Part 15: FCC CFR47 Part 15 Class A

EN 55022: EN 55022 Class A

### Approvals

Certificate: FCC, CE,

## Order Information

Model	Description	Model	Description
KIEN3016-4S	4 x 100Base-FX, single mode	KIEN3016	No fiber port
KIEN3016-3S	3 x 100Base-FX, single mode	KIEN3016-4M	4 x 100Base-FX, multimode
KIEN3016-2S	2 x 100Base-FX, single mode	KIEN3016-3M	3 x 100Base-FX, multimode
KIEN3016-1S	1 x 100Base-FX, single mode	KIEN3016-2M	2 x 100Base-FX, multimode
		KIEN3016-1M	1 x 100Base-FX, multimode