



# KFS-1640



## Industrial 16-Port L2 Fast Ethernet Switches

DIN-Rail Mounting



Panel Mounting Bracket  
KSD-8PB



### Key Features:

- Auto MDI/MDI-X crossover function on the TP copper port
- Support IEEE 802.3x flow control for full-duplex operation
- Support Back-pressure flow control for half-duplex operation
- Transparent forwarding for tagged/untagged, IGMP, RSTP/STP packets with no modification
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Wide operating temperature range for temperature critical environment
- Support DIN-Rail mounting and panel mounting
- Provide two power input types to meet more application needs
- DC power input options: +4.5 ~ +50VDC, 110VDC, 90 ~ 150VAC
- Accept wide power input voltage range for application flexibility
- Industrial-rated Emission and Immunity performance

### Specifications:

Standard	IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX std.
Network Ports	16 10/100 Fast Ethernet copper ports Shielded RJ-45 jacks with auto-negotiation, auto-MDI/MDI-X support
Flow control	IEEE 802.3x pause packet for full-duplex operation Back-pressure for half-duplex operation
Cables	10BASE-T: Cat. 3, 4, 5 or higher (100 meters max.) 100BASE-TX: Cat. 5, 5e or higher (100 meters max.)
LEDs	Power status Port link/activity status Port speed status
Forwarding rate	10Base-T: 10Mbps (Half-duplex) 20Mbps (Full-duplex) 100Base-TX: 100Mbps (Half-duplex) 200Mbps (Full-duplex)
MAC Table	8K entries
Packet Size	Up to 2K bytes
Environment	Operating Temperature: -20°C ~ 70°C (Device) Storage Temperature: -20°C ~ 85°C Relative Humidity: 10% ~ 90% non-condensing
Dimensions	40 x 106 x 140 mm (WxDxH)
Power Input Voltage	KFS-1640-L: +4.5 ~ +50VDC KFS-1640-H: +110VDC with polarity protection 90 ~ 150VAC



### Ordering Informations:

Model	DC IN	DC IN Voltage
KFS-1640-L	TB-5P, DC Jack	+4.5 ~ +50VDC
KFS-1640-H	TB-5P	+110VDC 90 ~ 150VAC

### EMI EMS Safety Environmental Tests:

Test	Standard	Specifications
FCC/EMI	FCC Rule Part 15	Class A
CE/EMC/EMI	EN55022, CISPR 22	Class A
CE/EMC/Harmonic	EN 61000-3-2	230VAC/50Hz Class A
CE/EMC/VFF	EN 61000-3-3	Clause 5
CE/EMC/EMS	EN 55024	
ESD Test	IEC 61000-4-2	Contact: +/-6KV Air: +/-8KV
RS Test	IEC 61000-4-3	Strength: 10V/m
EFT/BURST	IEC 61000-4-4	DC IN: +/-1KV RJ-45: +/-1KV
Surge Immunity	IEC 61000-4-5	DC IN: +/-1KV RJ-45: +/-1KV
CS Test	IEC 61000-4-6	Level 3
Magnetic Field Imm.	IEC 61000-4-8	50Hz 100A/m
Voltage Dips Imm.	IEC 61000-4-11	Interruption: C Dips: B
Safety	EN 60950, IEC 60950	
Dielectric Voltage	IEEE 802.3	TP, 1500VAC/60sec.
Insulation Resistance	IEEE 802.3	TP, 500VDC/10Mohm
Cold Test	IEC 68-2-1 Test Ad	-20°C, 72hrs
Dry Heat Test	IEC 68-2-2 Test Bd	+70°C 40%RH 72hrs
Damp Heat Test	IEC 68-2-3	+70°C 90%RH 72hrs
Storage Test	IEC 68-2-48	-20°C 96hrs +85°C 90%RH 96hrs

Power Input Connector	Industrial Terminal Block 5P: Vin +/-, PE, PF +/- (PF: Power failure relay output) DC Jack ( KFS-1640-L)
Power Consumption	3.4W max. (KFS-1640-L) 5.2W max. (KFS-1640-H)
Housing	Enclosed metal with no fan
Mounting Support	DIN-Rail, Panel mounting (optional)
Approval	FCC Class A, CE mark Class A, IEC60950-1 safety, C-Tick

### Optional Accessories:

KPW-1212-H-V	AC Power adapters for high temperature 60°C for Europe, Input 100 ~ 150VAC, Output 12VDC/1.0A, 12Watts
KPW-1212-H-U	AC Power adapters for high temperature 60°C for USA, Input 100 ~ 240VAC, Output 12VDC/1.0A, 12Watts
KPW-2012-D-E	DIN-Rail Power Supply, Input 100 ~ 240VAC, Output 12VDC/1.8A 20Watts, WT -20°C ~ 60°C
KPW-1012-D	DIN-Rail Power Supply, Input 100 ~ 240VAC, Output 12VDC / 0.85A 10Watts, WT -20°C ~ 70°C
KSD-8PB	Panel mounting bracket



FCC Part 15, Class A  
CISPR 22 Class A

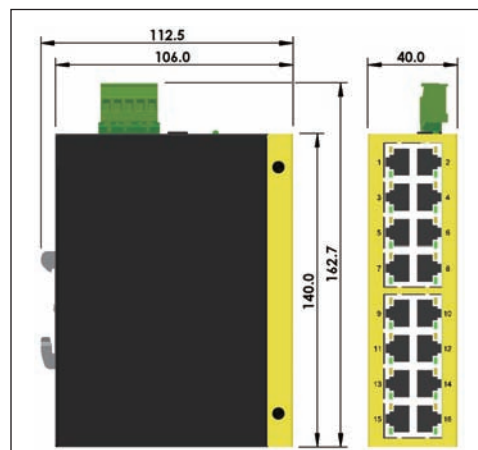
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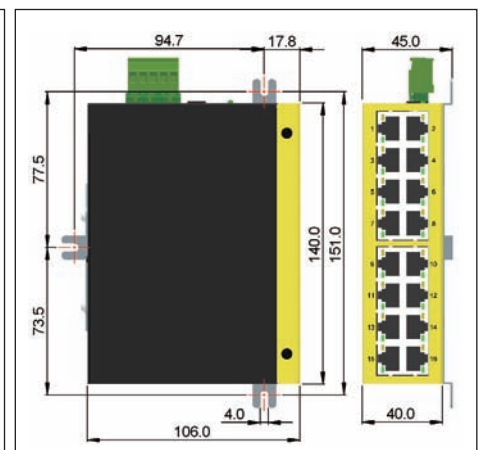
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DIN-Rail Mounting Dimension



Panel Mounting Dimension