

Product Information

HES16/24 Series

16 and 24-Port Din-rail Unmanaged Ethernet Switches



Features

- ❖ 10/100BaseT(X), 100BaseFX(multi/single-mode, SC or ST connector)
- ❖ Broadcast storm protection
- ❖ Redundant dual 12 to 36 VDC, 12 to 24VAC power inputs
- ❖ Relay output warning for power failure and port break alarm
- ❖ -40 to +75°C Operating Temperature Range (W models)
- ❖ IP30 aluminum housing



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Introduction

The HES16/24 are 16-port and 24-port unmanaged Ethernet switches that provide an economical solution for your industrial Ethernet connections. The built-in relay warning function alerts network engineers when power failures or port breaks occur, and the switches are designed for harsh industrial environments, such as in hazardous locations. The switches comply with FCC and CE standards, and come with two model types. Standard operating temperature range models (-10 to +60°C) and wide operating temperature range models (-40 to +75°C). Both models undergo a 100% burn-in test to ensure that they fulfill the special needs of industrial automation control applications.

Specifications

Technology		Optical Fiber	
Standard :	IEEE802.3, 802.3u, 802.3x	Mode	Multi-mode Single Mode
Processing Type :	Store and forward	Transmission Distance	2km 20km
Broadcast Storm :	Automatic Broadcast Storm Control	Centre Wavelength	1310nm 1310nm
Flow Control :	Full Duplex Flow Control, Half Duplex Back Pressure Control	Cable Size	62.5/125um 9/125um
Protocols :	CSMA/CD (Carrier Sense Multiple Access/Collision Direct)	TX Power(dBm)	-20~-10dBm -15~-8dBm
Switch Properties		RX Power(dBm)	< -32dBm < -32dBm
MAC Table Size :	8K	Transmission Rate	100Mbps 100Mbps
Interface		Standards and Certifications	
RJ45 Port :	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection	EMI :	FCC Part15, CISPR(EN55022) Class A
Fiber Port :	100BaseFX ports (SC/ST connector)	EMS :	EN61000-4-2(ESD) Level 3, EN61000-4-3(RS) Level 3, EN61000-4-4(EFT) Level 3, EN61000-4-5(Surge) Level 3, EN61000-4-6(CS) Level 3, EN61000-6-2
LED Indicators :	Power, Port Status, 10/100M		Shock :
Power Requirements		Freefall :	IEC 60068-2-32
Input Voltage :	HES16: 12~36VDC @ 11W MAX 10~24VAC @ 11VA MAX	Vibration :	IEC 60068-2-6
	HES24: 12~36VDC @ 17W MAX 10~24VAC @ 17VA MAX	Warranty	
Input Connection :	Standard four terminal power input	Warranty Period :	3 years
Physical Characteristics			
Case :	Slim Metal Case, IP30 Design		
Dimensions :	70.4×149.1×132mm (HES16) 91.2×149.1×132mm (HES24)		
Installation :	DIN Rail or Panel Mounting		
Environment Limits			
Operating Temp. :	Standard Models: -10 to 60°C Wide Temp. Models: -40 to 75°C		
Storage Temp. :	-40 to 85°C		
Ambient Relative Humidity :	5 to 95%(Non-condensing)		

Ordering Information

HES16

HES16-VL	Din-rail Unmanaged, 16 x 100Mbps Copper Port, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES16-VLW	Din-rail Unmanaged, 16 x 100Mbps Copper Port, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES16-2SC-VL	Din-rail Unmanaged, 14 x 100Mbps Copper Port, 2 x Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES16-2SC-VLW	Din-rail Unmanaged, 14 x 100Mbps Copper Port, 2 x Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES16-2SSC-VL	Din-rail Unmanaged, 14 x 100Mbps Copper Port, 2 x Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES16-2SSC-VLW	Din-rail Unmanaged, 14 x 100Mbps Copper Port, 2 x Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES16-4SC-VL	Din-rail Unmanaged, 12 x 100Mbps Copper Port, 4 x Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES16-4SC-VLW	Din-rail Unmanaged, 12 x 100Mbps Copper Port, 4 x Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES16-4SSC-VL	Din-rail Unmanaged, 12 x 100Mbps Copper Port, 4 x Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES16-4SSC-VLW	Din-rail Unmanaged, 12 x 100Mbps Copper Port, 4 x Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC

Note: All of the Above Products SC Connector can be replaced by ST Connector

HES24

HES24-VL	Din-rail Unmanaged, 24 x 100Mbps Copper Port, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES24-VLW	Din-rail Unmanaged, 24 x 100Mbps Copper Port, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES24-2SC-VL	Din-rail Unmanaged, 22 x 100Mbps Copper Port, 2 x 100Mbps Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES24-2SC-VLW	Din-rail Unmanaged, 22 x 100Mbps Copper Port, 2 x 100Mbps Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES24-2SSC-VL	Din-rail Unmanaged, 22 x 100Mbps Copper Port, 2 x 100Mbps Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES24-2SSC-VLW	Din-rail Unmanaged, 22 x 100Mbps Copper Port, 2 x 100Mbps Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES24-4SC-VL	Din-rail Unmanaged, 20 x 100Mbps Copper Port, 4 x 100Mbps Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES24-4SC-VLW	Din-rail Unmanaged, 20 x 100Mbps Copper Port, 4 x 100Mbps Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES24-4SSC-VL	Din-rail Unmanaged, 20 x 100Mbps Copper Port, 4 x 100Mbps Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES24-4SSC-VLW	Din-rail Unmanaged, 20 x 100Mbps Copper Port, 4 x 100Mbps Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES24-6SC-VL	Din-rail Unmanaged, 18 x 100Mbps Copper Port, 6 x 100Mbps Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES24-6SC-VLW	Din-rail Unmanaged, 18 x 100Mbps Copper Port, 6 x 100Mbps Multi-Mode Fiber Port with SC Connectors, 2KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES24-6SSC-VL	Din-rail Unmanaged, 18 x 100Mbps Copper Port, 6 x 100Mbps Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES24-6SSC-VLW	Din-rail Unmanaged, 18 x 100Mbps Copper Port, 6 x 100Mbps Single-Mode Fiber Port with SC Connectors, 20KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC

Note: All of the Above Products SC Connector can be replaced by ST Connector