

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



Henrich Electronics Corporation

Main Office

Tel: 860-487-9869

Fax: 860-487-9478

www.henrich-inc.com

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	
Standard :	IEEE802.3, 802.3u, 802.3x
Processing Type :	Store and forward
Broadcast Storm :	Automatic Broadcast Storm Control
Flow Control :	Full Duplex Flow Control, Half Duplex Back Pressure Control
Protocols :	CSMA/CD (Carrier Sense Multiple Access/Collision Direct)
Switch Properties	
MAC Table Size :	8K
Interface	
RJ45 Port :	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
Fiber Port :	100BaseFX ports (SC/ST connector)
LED Indicators :	Power, Port Status, 10/100M
Power Requirements	
Input Voltage :	HES16:
	12~36VDC @ 11W MAX
	10~24VAC @ 11VA MAX
	HES24:
	12~36VDC @ 17W MAX
	10~24VAC @ 17VA MAX
Input Connection :	Standard four terminal power input
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)

Optical Fiber		
Mode	Multi-mode	Single Mode
Transmission Distance	2km	20km
Centre Wavelength	1310nm	1310nm
Cable Size	62.5/125um	9/125um
TX Power(dBm)	-20~-10dBm	-15~-8dBm
RX Power(dBm)	< -32dBm	< -32dBm
Transmission Rate	100Mbps	100Mbps
Standards and Certifications		
EMI :	FCC Part15, CISPR(EN55022) Class A	
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	
Shock :	IEC 60068-2-27	
Freefall :	IEC 60068-2-32	
Vibration :	IEC 60068-2-6	
Warranty		
Warranty Period :	3 years	

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