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## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Product Information

# HES16M/24M Series

## 16 and 24-Port Din-rail Managed Ethernet Switches



## Features

- ❖ RingOn (recovery time < 15ms), RSTP for Network Redundancy
- ❖ Automatic E-mail Notification for system events
- ❖ Port Mirror and Port Trunk with LACP
- ❖ -40 to +75°C Operating Temperature Range (W models)
- ❖ IP30 DIN Rail or Panel Mounting

**HENRICH**<sup>TM</sup>  
Henrich Electronics Corporation

Main Office

Tel: 860-487-9869

Fax: 860-487-9478

[www.henrich-inc.com](http://www.henrich-inc.com)

## Introduction

The HES16M/24M are 16-port and 24-port managed Ethernet switches. With their advanced RingOn technology (recovery time < 15 ms) and RSTP/STP, the HES16M/24M switches increase the reliability and availability of your industrial Ethernet network. Models with an wide operating temperature range of -40 to +75°C are also available, and the switches support several reliable and intelligent functions, including SNMP Inform, QoS, IGMP snooping, VLAN, IEEE 802.1X, HTTPS, SNMPv3, and SSH, making the HES16M/24M switches suitable for any harsh industrial environment.

## Specifications

Technology		
Standard :	IEEE802.3, 802.3u, 802.3x, 802.1Q, 802.1p	
Processing Type :	Store and forward	
Broadcast Storm :	Automatic Broadcast Storm Control	
Management :	by Web Browser	
RingOn :	Recovery Time within 15ms	
Flow Control :	Full Duplex Flow Control, Half Duplex Back Pressure Control	
Protocols :	SNMP V1/V2c/V3, RingOn/RingOpen, HTTP/HTTPS, LLDP, DHCP Client, IGMP Snooping/GMRP, Telnet, Syslog	
Switch Properties		
MAC Table Size :	8K	
Priority Queues :	4	
Max. Number VLANs :	64	
VLAN ID Range :	VID 1 to 4094	
IGMP Groups :	256	
Interface		
RJ45 Port :	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection	
Fiber Ports :	100BaseFX ports (SC/ST connector)	
LED Indicators :	Power, Port Status	
Console port :	DB9 male	
Output Warning :	Relay, Standard 2 Pin	
Power Requirements		
Input Voltage :	HES16M: 12~36VDC @ 12W MAX; 10~24VAC @ 12VA MAX HES24M: 12~36VDC @ 18W MAX 10~24VAC @ 18VA MAX	
Input Connection :	Standard four terminal power input	
Physical Characteristics		
Case :	Slim Metal Case, IP30 Design	
Dimensions :	HES16M: 70.4×149.1×132mm HES24M: 91.2×149.1×132mm	
Installation :	DIN Rail or Panel Mounting	
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
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)	
Standards and Certifications		
EMI :	FCC Part15, CISPR(EN55022) Class A 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	
EMS :		
Shock :	IEC 60068-2-27	
Freefall :	IEC 60068-2-32	
Vibration :	IEC 60068-2-6	
Warranty		
Warranty Period :	3 years	

## Ordering Information

### HES16M Series

HES16M-VL	Din-rail Managed, 16 x 100Mbps Copper Port, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES16M-VLW	Din-rail Managed, 16 x 100Mbps Copper Port, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES16M-2SC-VL	Din-rail Managed, 14 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
HES16M-2SC-VLW	Din-rail Managed, 14 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
HES16M-2SSC-VL	Din-rail Managed, 14 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
HES16M-2SSC-VLW	Din-rail Managed, 14 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
HES16M-4SC-VL	Din-rail Managed, 12 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
HES16M-4SC-VLW	Din-rail Managed, 12 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
HES16M-4SSC-VL	Din-rail Managed, 12 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
HES16M-4SSC-VLW	Din-rail Managed, 12 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

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

### HES24M Series

HES24M-VL	Din-rail Managed, 24 x 100Mbps Copper Port, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES24M-VLW	Din-rail Managed, 24 x 100Mbps Copper Port, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES24M-2SC-VL	Din-rail Managed, 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
HES24M-2SC-VLW	Din-rail Managed, 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
HES24M-2SSC-VL	Din-rail Managed, 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
HES24M-2SSC-VLW	Din-rail Managed, 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
HES24M-4SC-VL	Din-rail Managed, 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
HES24M-4SC-VLW	Din-rail Managed, 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
HES24M-4SSC-VL	Din-rail Managed, 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
HES24M-4SSC-VLW	Din-rail Managed, 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
HES24M-6SC-VL	Din-rail Managed, 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
HES24M-6SC-VLW	Din-rail Managed, 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
HES24M-6SSC-VL	Din-rail Managed, 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
HES24M-6SSC-VLW	Din-rail Managed, 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