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# Product Information

# **HES5M/8M Series**

#### 5 and 8-port Din-rail Managed Ethernet Switches











### **Features**

- RingOn (recovery time < 15ms), RSTP for Network Redundancy
- QoS (IEEE 802.1p/1Q) and TOS/DiffServ to increase determinism
- IGMP snooping and GMRP for filtering multicast traffic SNMPv1/v2c/v3 for network management of different levels
- Bandwidth management to prevent unpredictable network status
- > IP30 DIN Rail or Panel Mounting



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## Introduction

The HES5M/8M are 5-port and 8-port managed Ethernet switches. With their advanced RingOn technology (recovery time < 15 ms) and RSTP, the HES5M/8M 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 HES5M/8M 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, Telent, 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		
Іптеттасе		
RJ45 Port :	10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection	
	speed, Full/Half duplex mode, and auto	
RJ45 Port :	speed, Full/Half duplex mode, and auto MDI/MDI-X connection	
RJ45 Port : Fiber Ports :	speed, Full/Half duplex mode, and auto MDI/MDI-X connection 100BaseFX ports (SC/ST connector)	
RJ45 Port : Fiber Ports : LED Indicators :	speed, Full/Half duplex mode, and auto MDI/MDI-X connection 100BaseFX ports (SC/ST connector) Power, Port Status	
RJ45 Port :  Fiber Ports :  LED Indicators :  Console port :	speed, Full/Half duplex mode, and auto MDI/MDI-X connection  100BaseFX ports (SC/ST connector)  Power, Port Status  DB9 male	
RJ45 Port :  Fiber Ports :  LED Indicators :  Console port :  Output Warning :	speed, Full/Half duplex mode, and auto MDI/MDI-X connection  100BaseFX ports (SC/ST connector)  Power, Port Status  DB9 male	
RJ45 Port :  Fiber Ports :  LED Indicators :  Console port :  Output Warning :  Power Requirements	speed, Full/Half duplex mode, and auto MDI/MDI-X connection  100BaseFX ports (SC/ST connector)  Power, Port Status  DB9 male  Relay, Standard 2 Pin  HES5M:  12~36VDC @ 9W MAX;  10~24VAC @ 9VA MAX  HES8M:  12~36VDC @ 12W MAX	
RJ45 Port :  Fiber Ports :  LED Indicators :  Console port :  Output Warning :  Power Requirements  Input Voltage :	speed, Full/Half duplex mode, and auto MDI/MDI-X connection  100BaseFX ports (SC/ST connector)  Power, Port Status  DB9 male  Relay, Standard 2 Pin  HES5M:  12~36VDC @ 9W MAX;  10~24VAC @ 9VA MAX  HES8M:  12~36VDC @ 12W MAX  10~24VAC @ 12VA MAX  Standard four terminal power input	
RJ45 Port :  Fiber Ports :  LED Indicators :  Console port :  Output Warning :  Power Requirements  Input Voltage :  Input Connection :	speed, Full/Half duplex mode, and auto MDI/MDI-X connection  100BaseFX ports (SC/ST connector)  Power, Port Status  DB9 male  Relay, Standard 2 Pin  HES5M:  12~36VDC @ 9W MAX;  10~24VAC @ 9VA MAX  HES8M:  12~36VDC @ 12W MAX  10~24VAC @ 12VA MAX  Standard four terminal power input	
RJ45 Port :  Fiber Ports :  LED Indicators :  Console port :  Output Warning :  Power Requirements  Input Voltage :  Input Connection :  Physical Characteristi	speed, Full/Half duplex mode, and auto MDI/MDI-X connection  100BaseFX ports (SC/ST connector)  Power, Port Status  DB9 male  Relay, Standard 2 Pin  HES5M:  12~36VDC @ 9W MAX;  10~24VAC @ 9VA MAX  HES8M:  12~36VDC @ 12W MAX  10~24VAC @ 12VA MAX  Standard four terminal power input  cs	

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, CISF	R(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	IEC 60068-2-32	
Vibration :	IEC 60068-2-6	IEC 60068-2-6	
Warranty			
Warranty Period :	3 years		

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## **Ordering Information**

#### **HES5M Series**

HES5M-VL	Din-rail Managed, 5 x 100Mbps Copper Port, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES5M-VLW	Din-rail Managed, 5 x 100Mbps Copper Port, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES5M-SC-VL	Din-rail Managed, 4 x 100Mbps Copper Port, 1 x 100Mbps Multi-Mode Fiber Port with SC Connector, 2KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES5M-SC-VLW	Din-rail Managed, 4 x 100Mbps Copper Port, 1 x 100Mbps Multi-Mode Fiber Port with SC Connector, 2KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES5M-SSC-VL	Din-rail Managed, 4 x 100Mbps Copper Port, 1 x 100Mbps Single-Mode Fiber Port with SC Connector, 20KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
HES5M-SSC-VLW	Din-rail Managed, 4 x 100Mbps Copper Port, 1 x 100Mbps Single-Mode Fiber Port with SC Connector, 20KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
HES5M-2SC-VL	Din-rail Managed, 3 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
HES5M-2SC-VLW	Din-rail Managed, 3 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
HES5M-2SSC-VL	Din-rail Managed, 3 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
HES5M-2SSC-VLW	Din-rail Managed, 3 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

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

#### **HES8M Series**

Din-rail Managed, 8 x 100Mbps Copper Port, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
Din-rail Managed, 8 x 100Mbps Copper Port, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
Din-rail Managed, 7 x 100Mbps Copper Port, 1 x 100Mbps Multi-Mode Fiber Port with SC Connector, 2KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
Din-rail Managed, 7 x 100Mbps Copper Port, 1 x 100Mbps Multi-Mode Fiber Port with SC Connector, 2KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
Din-rail Managed, 7 x 100Mbps Copper Port, 1 x 100Mbps Single-Mode Fiber Port with SC Connector, 20KM, Industrial Temperature -10°C to +60°C, Power Input 12~36VDC or 10~24VAC
Din-rail Managed, 7 x 100Mbps Copper Port, 1 x 100Mbps Single-Mode Fiber Port with SC Connector, 20KM, Industrial Wide Temperature -40°C to +75°C, Power Input 12~36VDC or 10~24VAC
Din-rail Managed, 6 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
Din-rail Managed, 6 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
Din-rail Managed, 6 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
Din-rail Managed, 6 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
Din-rail Managed, 4 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
Din-rail Managed, 4 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
Din-rail Managed, 4 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
Din-rail Managed, 4 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

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