

# Product Information

## HES5A-4E60 Series

5 Port Unmanaged Ethernet Switches with  
4 IEEE 802.3bt PoE++ Ports



### Features

- ❖ Compact size design
- ❖ 4 IEEE 802.3bt compliant PoE++ ports
- ❖ each PoE++ Port can provide up to 60W of DC power
- ❖ 9~52VDC wide range redundant power inputs
- ❖ -40 to +60°C operating temperature range optional
- ❖ IP40 enclosure

## Introduction

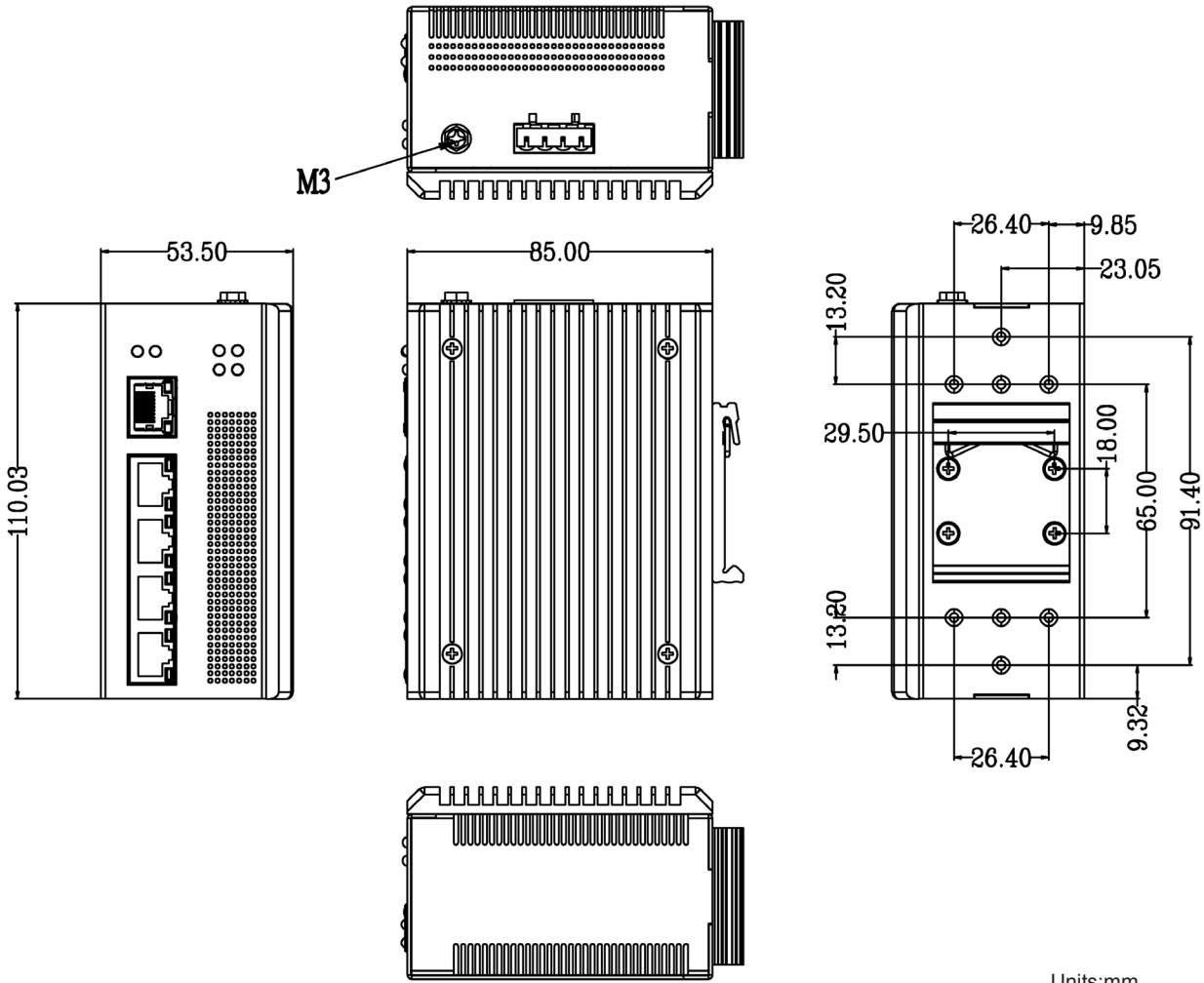
The HES5A-4E60 series are smart, 5-port, unmanaged Ethernet switches supporting 4 PoE++ ports, with each port can provide up to 60 watts of DC power. The switches can be used for the indicators, LEDs, cameras and media screens in railway or other industrial Internet applications. Compliant with IEEE802.3bt and the optional power class feature, HES5A-4E-60 allows the PD to indicate its power requirements at different voltages. The compact design makes HES5A-4E60 suitable for limited installing space. The switches can be easily installed on a DIN-rail or multi-directional panel mounting. The minimum 9VDC power input is designed for the emergency circumstances that the train starts its standby battery which is 9VDC output.

## Specifications

Technology	
Standard :	IEEE802.3, 802.3u, 802.3x, 802.3bt
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 :	1K
Interface	
RJ45 Port :	Auto-negotiation10/100Base-T, Full/Half Duplex, Auto-MDI/MDIX
Fiber Ports :	100Base-FX or SFP interface. SFP module is optional
LED Indicators :	Power, 10/100M, PoE
Power Requirements	
Input Voltage :	9~52VDC @ 240W MAX
Input Connection :	Standard four terminal power input
PoE Parameter	
Output:	60watts per port (90 watts per port are available per request)
Voltage	Power
9V	55W
12V	110W
24V	150W
36V	240W
52V	240W
Physical Characteristics	
Case :	Slim Metal Case, IP40 Design
Dimensions :	53.5×110×85mm
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. :	-40 to 60°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	
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	

## Dimension Drawing



Units:mm

## Ordering Information

### HES5A-4E60

HES5A-4E60-VL	Din-rail Unmanaged, 1 x 100Mbps Copper Port, 4 x PoE++ 100Mbps Copper Port, Operating Temperature -40 to +60°C, Power Input 9~52VDC
HES5A-4E60-SFP-VL	Din-rail Unmanaged, 1 x 100Mbps SFP Port, 4 x PoE++ 100Mbps Copper Port, Operating Temperature -40 to +60°C, Power Input 9~52VDC