

IP68 10*1GE Copper EN50155 Unmanaged PoE++ Industrial Switch



10*1GE Copper EN50155 Unmanaged PoE Industrial Switch with Voltage Booster

Size: 186 x 121 x 30mm

Overview

MES-1310-M12-V9-36 is a 10 port fully gigabit unmanaged industrial Ethernet switch designed specifically for railway transportation. This product meets the industry standard requirements of EN50155 and the IEEE 802.3af/at/bt protocol standard. It has the boost function of DC12V~36V wide voltage input and supports POE, POE+, and POE++ functions. The Ethernet interface adopts a sturdy and reliable M12 format, suitable for scenarios with severe vibration and impact. This product provides 10 * 1GE M12 ports. The operating temperature range of this series of switches is -40 °C to +80 °C, with an IP68 rated housing and LED indicator lights. It is a plug and play industrial grade device. With its excellent waterproofing and durability, it can adapt to various harsh environments and provide reliable and convenient solutions for users to connect their Ethernet devices. Adopting wall mounted installation method can meet the needs of different application scenarios.

The hardware adopts a fan-less, low power consumption, wide temperature and wide voltage design. After undergoing rigorous testing in compliance with industry standards, it can adapt to industrial site environments with strict EMC requirements and is widely applicable to on-board PIS, train control, CCTV, video surveillance, and other rail transit subsystems.

Features

10*10/100/1000Base-T M12 copper ports

8 downlink Gigabit copper ports support PoE/PoE+/PoE++, compatible with IEEE 802.3af/at/bt standards

Supports 802.3af POE, IEEE802.3 at/POE+, IEEE802.3bt/POE++ protocol, with a maximum of 90W per port

Lightning surge Protection: 6KV common mode/2KV differential mode for network port, 4KV common mode/2KV differential mode for power

Electrostatic protection: 4KV touch discharge, 8KV air discharge

Can detect the PoE mode of the powered device and can intelligently manage the PD, such as Qos for POE port.

Can work in the temperature range -40°C ~ +80°C, there is also the ultra low working temperature version which allows working temperature up to -60°C

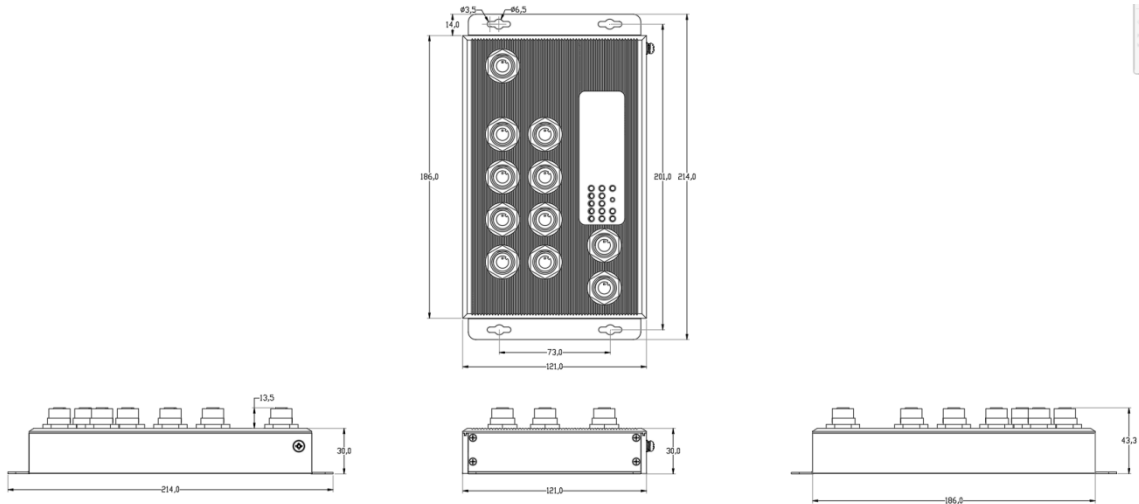
Specifications

Ports	10 * 10/100/1000 Base-T(X) M12 X coded female copper Ethernet ports Automatic detection, full/half duplex MDI/MDI-X self adaptive
	1 * M12 A coded male power input port, dual power redundancy
Ethernet Standards	IEEE 802.3: 10Base-T Ethernet IEEE 802.3u: 100Base-TX Fast Ethernet IEEE 802.3ab: 1000Base-T Gigabit Ethernet
Compliance	EN50155
MTBF	300,000 hours
Warranty	3 years
Industry Standards	
EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
EMS	IEC(EN)61000-4-2(ESD): $\pm 8\text{kV}$ touch discharge, $\pm 15\text{kV}$ air discharge
	IEC(EN)61000-4-3(RS): 10V/m (80~1000MHz)
	IEC(EN)61000-4-4(EFT) : power cable: $\pm 4\text{kV}$ Data cable: $\pm 2\text{kV}$
	IEC(EN)61000-4-5(Surge) : power cable: $\pm 2\text{kV CM}/\pm 4\text{kV DM}$ Data cable: $\pm 2\text{kV CM}/\pm 6\text{kV DM}$;
	IEC(EN)61000-4-6(Radio frequency conduction): 3V(10kHz~150kHz), 10V(150kHz~80MHz)
	IEC(EN)61000-4-16(Common-mode conduction) : 30V cont. 300V, 1s
	IEC(EN) 61000-4-8
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Switching Parameters	
Transmission Method	Store and forward
Backplane Bandwidth	20G
MAC capacity	16K
Switching Latency	<10 μs
	2 Mbit
Power Consumption	<5W

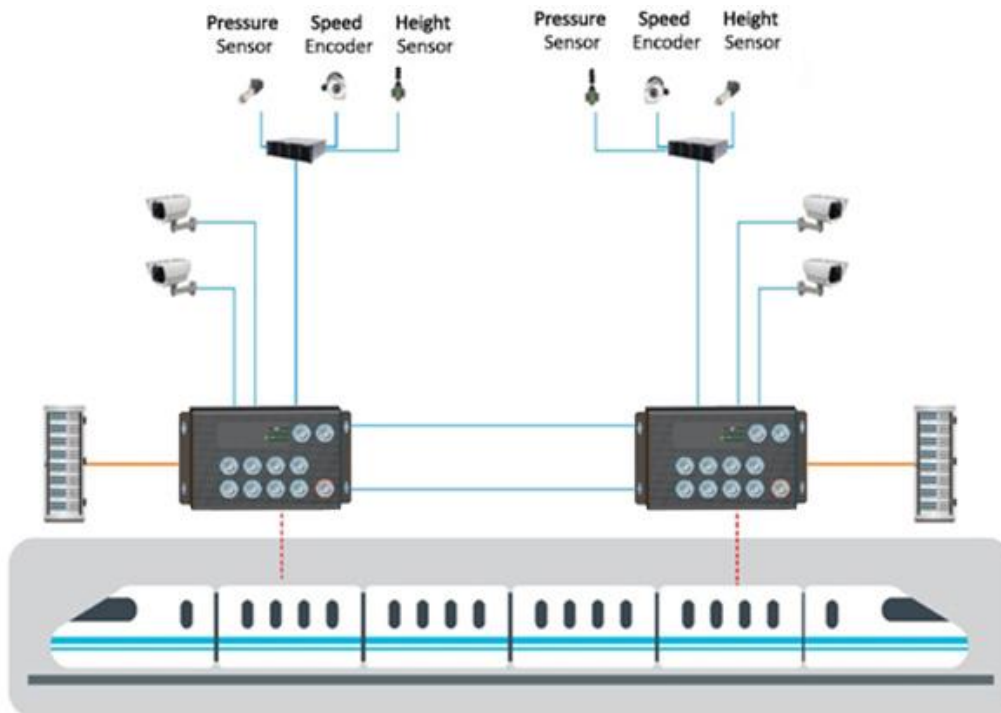
Working Temperature	
Working Temperature	-40~80°C(-40~176°F)
Storage Temperature	-40~85°C(-40~185°F)
Relative Humidity	5%~95% without condensation
PoE Features	
PoE Standards	IEEE802.3af/ IEEE802.3at/ IEEE802.3bt
	8 ports supports PoE++, automatically detects the standards of devices like IEEE802.3af , IEEE802.3at and IEEE802.3bt
Output Power	IEEE 802.3af: max. 15.4W/port
	IEEE 802.3at: max. 30W/port,
	IEEE 802.3bt: max. 90W/port,
	Max. total output power for PD: 240W@36V input (normal temp.); 120W@24V input (normal temp.); 60W@12V input (normal temp.)
POE Priority	When power >max. Power(different input has a max. Power in accordance with that input), POE priority: port No.8>port No.7>port No.6 and so on
Power Parameters	
Input Voltage	DC12~36V
Power Protection	Supports dual power supply redundancy Supports reverse polarity protection
Power Cable Requirement	Suggest to adopt the M12 cable with rated current≥6A, for wire order, please refer to the PVC label on the switch.
Mechanical Features	
Shell	IP68, aluminum enclosure
Installation Method	Wall mounted
Cooling Method	Natural cooling, fanless
Weight	1.13kg
Size	186 x 121 x 30mm
LED Indication	
Power Indicator	PWR
Interface Indicator	Copper ports(Link/ACT)

Outlook and Dimension

Size: 186 x 121 x 30mm



Application Diagram



Ordering Information

Model	Description
MES-1310-M12-V9-36	10* 10/100/1000BASE-T M12 copper ports, unmanaged type, PoE++, DC12~36V input, including M12 aviation connector, industrial grade wall mounted, IP68, aluminum shell Working Temperature: -40 ~ 80°C