

WoMaster

Quick Installation Guide

Industrial 7+3G L2 Managed M12 PoE Switch

MP310-HV/MV Series

www.womaster.eu

• Overview

The new managed MP310-HV/MV switch has been specially designed for fast and reliable infotainment and IP-surveillance networks on road and railway public transport. The switch provides 7 FE ports with intelligent PoE/PoE+ functionality and 3 Gigabit ports, one of which is PoE/PoE+ port and 2 Gigabit uplink ports with link bypass function ensuring network connectivity even in case of device/power fault. IP31 industrial hardware design with M12 rugged connectors eliminates the problems of vibration, shock, and temperature extremes. The switch is also equipped with M12 USB port for field configuration and trouble shooting.

LED	Description
MP310-HV-A	Industrial 7+3G L2 Managed M12 PoE Switch, 7xD-code FE+3xA-code GbE, 110VDC
MP310-HV-X	Industrial 7+3G L2 Managed M12 PoE Switch, 7xD-code FE+3xX-code GbE, 110VDC
MP310-MV-A	Industrial 7+3G L2 Managed M12 PoE Switch, 7xD-code FE+3xA-code GbE, 54VDC
MP310-MV-X	Industrial 7+3G L2 Managed M12 PoE Switch, 7xD-code FE+3xX-code GbE, 54VDC

• Package Checklist

- 1 x Product Unit
- 1 x Wall Mount Kit (2 x Wall mount plate)
- 1 x Quick Installation Guide

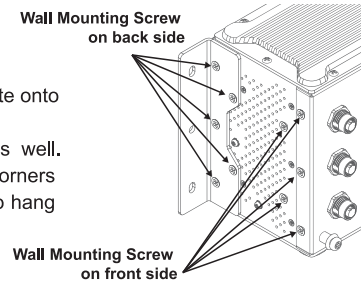
Optional Accessory for detailed information please refer to the Datasheet

• Installation

Wall mounting

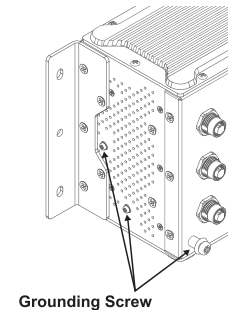
Follow the steps to install the wall-mounting plate:

1. Install the wall-mounting plate onto the side panel of the switch.
2. Tightened all of the screws well.
3. Use the hook holes at the corners of the wall mounting plate to hang the switch on the wall.



Grounding


There are three grounding screws on the device. One is located on the front side of the switch and the other two are on the side panels: for HV Series - on the left side and for MV Series - on the right side. For avoiding system damage by noise or electric shock, establish a direct connection between the device and earth ground. Please refer to Appearance Section.



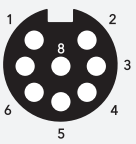

MP310 HV/MV Series Connector

MP310-HV/MV Switch uses several types of M12 connector for the power input, Fast Ethernet, Gigabit ports and console port for management and system backup. The connector is different from the common connector in other switches. Below are some descriptions about the connector.

10/100Base-TX, M12 4 pin D-Code Female

10/100 Base-TX	Pin	Description
	1	TX+ / PoE V+
	2	RX+ / PoE V-
	3	TX- / PoE V+
	4	RX- / PoE V-

100/1000Base-T, M12 8 pin A/X-Code Female

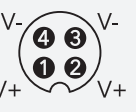
100/1000Base-T	Pin	MP310-HV/MV-A	MP310-HV/MV-X
	1	D3-	D1+/PoE V+
	2	D4+	D1-/PoE V+
	3	D4-	D2+/PoE V-
	4	D1-/PoE V+	D2-/PoE V-
	5	D2+/PoE V-	D4+
	6	D1+/PoE V+	D4-
	7	D3+	D3-
	8	D2-/PoE V-	D3+

Wiring the Power Inputs

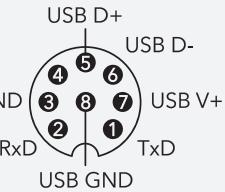
For DC power inputs (**MP310-HV: 110VDC (77~137.5VDC) / MP310-MV: 54VDC (46~57VDC)**)

1. Insert positive and negative wires into V+ and V- contacts respectively of the M12 connector (Plug-side).
2. Tighten the nuts to prevent the loosening of the M12 connectors.
3. Power input supports power redundancy and polarity-reverse protection functions.

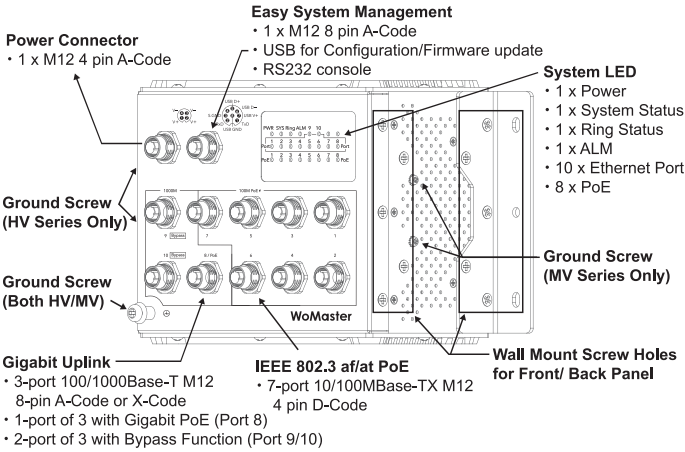
*The Power Supply is not included, please prepare one yourself.

Power Connector	Pin	Description
	1	V+
	2	V+
	3	V-
	4	V-

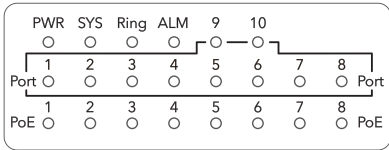
Console/ USB Port – M12 8 pin A-Code Female

A	Pin	Description
	1	TX
	2	RX
	3	Signal Ground
	4	N/A
	5	USB Data+
	6	USB Data-
	7	USB Power 5V
	8	USB GND

• **Appearance**



• **LED Indication**



LED	Status	Description
PWR	Green On	DC-IN Power is On
	Off	No Power in DC-IN
SYS LED	Green On	Ready
	Green Blinking	Firmware Updating
	Off	Not Ready
Ring LED	Green On	Ring Normal (Not RPL Owner)
	Green Blinking	Ring Normal (RPL Owner)
	Amber On	Ring Abnormal
	Amber Blinking	Ring Port Fail
	Off	Ring Disabled
Alarm	Red On	Any failures in port link, ping and power by SW control
	Off	No failure occurs
PoE LED	Green On	IEEE802.3af Powering
	Green Blinking	IEEE802.3af Detecting
	Blue On	IEEE802.3at Powering
	Blue Blinking	IEEE802.3at Detecting
	Off	PoE is Disabled

LED	Status	Description
Ethernet LNK/ACT (Port1-10)	Green On	Links established
	Green Blinking	Packets transmitting/receiving
	Off	Link is inactive

• **Safety Precautions**

- Turn off DC power input source before connecting the DC Power supply module to M12 power connectors. Do not turn-on the source of DC power module and make sure all connections were well established, then power on the DC source to powering the Switch device.
- Do make sure that models connect to the corresponding supply voltage.
The device is to be supplied by Limited Power Supply.
- The switch must be installed at Restricted Access Locations. The switch is designed for Railway/Train on-board application.
- **Do not touch the surface of the switch while it is performing PoE function!**

• **Management**

This device supports both in-band and out-of-band network management. The user can either configure the device through the user friendly Web/HTTPS management or remotely manage the device through the network by console management or Telnet/SSH.

1. Preparation for **Web management**: First of all, verify that device is properly installed in the network and that every PC of this network can access the switch through the web browser (Google Chrome, Internet Explorer or Mozilla Firefox).

- Type **http://IP_address** in your browser (the default IP address is **http://192.168.10.1/**)
- Key in the user name and password in login screen. The default user name and password is **admin**.
- After you click OK, the Welcome page of the web-based management interface will appear.
- On the left side you can see the list of software features, on the right side – available settings.
- To link with the device, please make sure that the IP Address of the PC is located in the same subnet (**192.168.10.x**).

2. Preparation for **Console management**: Attach RS232 DB9 to your PC's COM port. Connect M12-A connector with the console port of the device.

- Start -> Program -> Accessories -> Communication -> Hyper Terminal.
- Give a name to a new console connection.
- Choose the COM name and select correct serial settings: Baud Rate: 115200 / Parity: None / Data Bit: 8 / Stop Bit: 1
- After connected, type the username admin and password admin to login.
- Follow the User Manual to configure the software features.

3. Preparation for **Telnet/SSH management**: You can connect to the switch by Telnet and the command lines are the same as what you see by RS232 console port. Below are the steps to open Telnet connection to the switch.

- Start -> Open Command prompt ->Enter
- Type the Telnet 192.168.10.1 (or the IP address of the switch). And then press Enter.

SSH (Secure Shell)

The device managed Switch also supports SSH console. You can remotely connect to the switch to access command line interface. The SSH connection can secure all the configuration commands you sent to the switch.

SSH is a client/server architecture while the Switch is the SSH server. When you want to make SSH connection with the switch, you should download the SSH client tool first.

SSH Client

There are many free, sharewares, trials or charged SSH clients you can find on the internet.

- **For further feature configurations, please refer to User Manual.**

• **Support**

At WoMaster, you can use the online service forms to **request the support**. The submitted forms are stored in server for WoMaster team member to assign tasks and monitor the status of your service. Please feel free to write to **help@womaster.eu** if you encounter any problems.

• **Warranty**

5-year Global warranties are available for WoMaster products assuring our customers that the products shall remain free from defects in workmanship or materials and conform in all material respects to WoMaster specifications, or Purchaser's supplied and accepted specifications. The warranty is limited to the repair and/or replacement, at WoMaster' sole discretion, of the defective product during its warranty period. The customer must obtain a **Return Merchandise Authorization (RMA)** approval code prior to returning the defective Product to WoMaster for service. The customer agrees to prepay shipping charges, to use the original shipping container or equivalent, and to insure the Product or assume the risk of loss or damage in transit. Repaired or replaced products are warranted for ninety (90) days from the date of repair or replacement, or for the remainder of the original product's warranty period, whichever is longer.

• **Disclaimer**

WoMaster reserves the right to make changes to this QIG or to the product hardware at any time without notice. It is the user's responsibility to determine whether there have been any such updates or amendments herein.

Defects, malfunctions, or failures of the warranted Product(s) caused by damage resulting from unforeseeable incidents (such as lightings, floods, fire, etc.), environmental and atmospheric disturbances, other external forces such as power line disturbances and surge, host computer malfunction and virus, incorrect power input, or incorrect cabling, incorrect grounding and damages caused by misuse, abuse and unauthorized alteration or repair are not warranted.