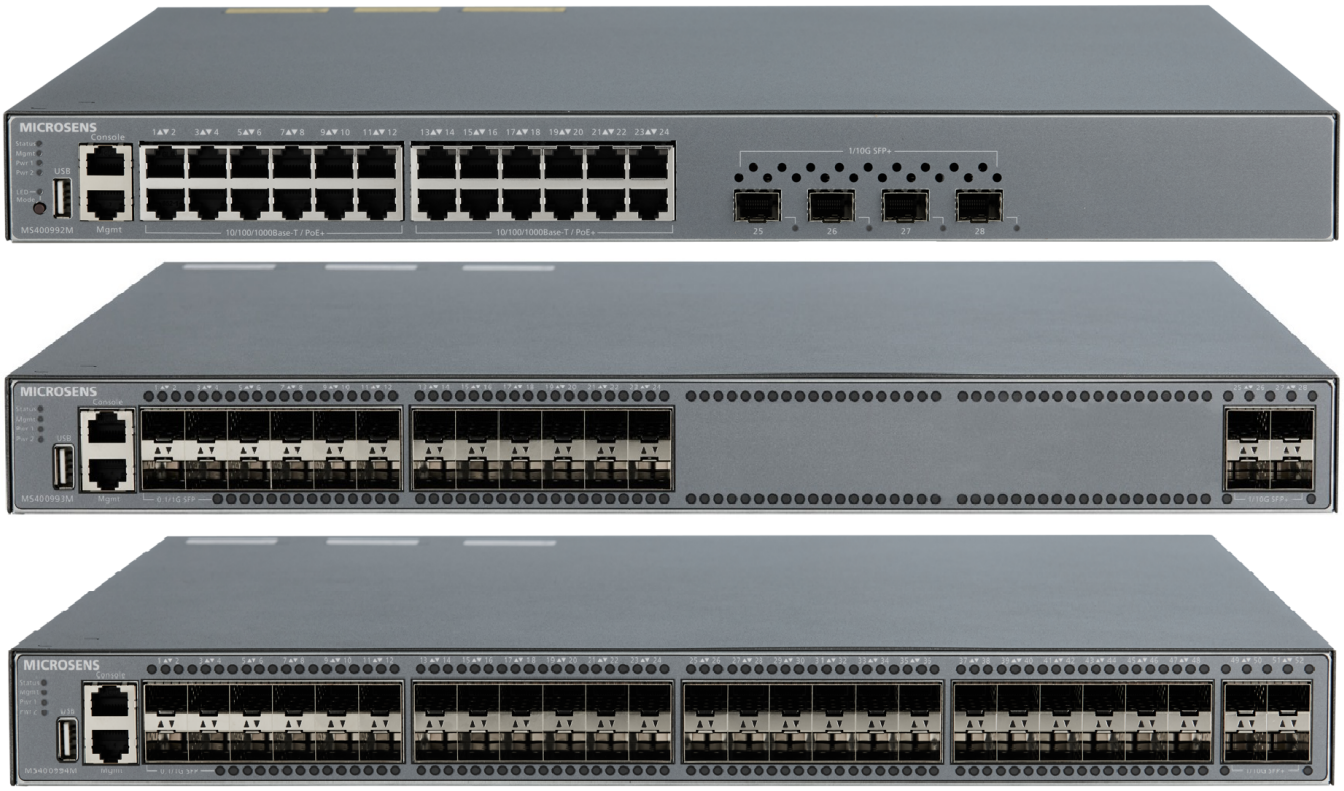
MICROSENS

Quick Start Guide

Commissioning the MS400992M/MS400993M/MS400994M



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Aim of the Quick Start Guide

This quick start guide will help you with

- the mechanical handling of the switch,
- inserting and connecting the power supply and commissioning the device,
- understanding the status LEDs,
- setting up access to the network management,

For further documentation, visit the MICROSENS website.

Information available on the MICROSENS Website

Registered users can find the latest firmware versions as well as further information at www.microsens.com:

- Registration: www.microsens.com › Login
  - Click on the '**Not registered**' link.
  - Fill out the e-mail form and send it to sales@microsens.com.
  - MICROSENS will send you an email containing a username and password.
- Login: www.microsens.com › Login
  - Enter your username and password
  - Click the `Login`.
  - Please navigate to your device and select the '**Download**' section.
  - Further information is available by selecting the other tabs on the product page.

> ℹ | Make sure the browser allows the execution of scripts.

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1. Mechanical Handling

1.1. Switch

1.1.1. Mounting

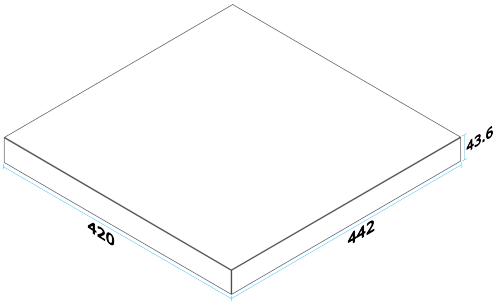


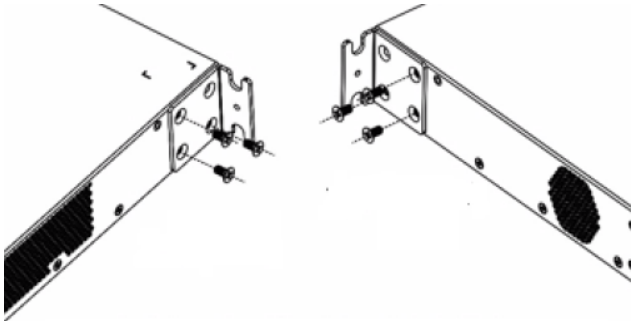
Figure 1. Switch - Dimensions

Permissible mounting position! Keep free ventilation holes, leave space for cooling! Recommended to have at least 100 mm free space at all sides for ventilation / cooling.

Please read the following instructions to ensure proper installation:

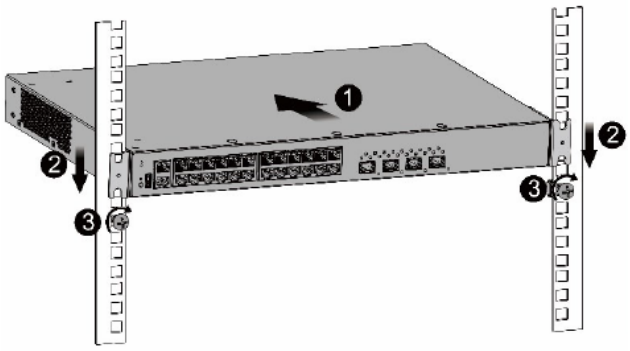
Make sure the switch is **Off**.

1. Use a Phillips head screwdriver to secure a bracket to each side of the switch with two screws.

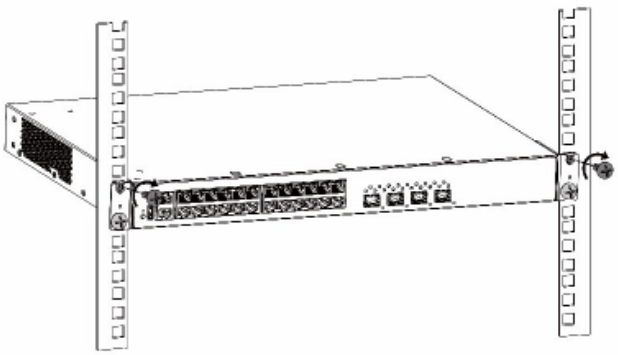


2. Install two cage nuts on the inside of each front rack and drive the screws halfway into the cage nuts.

3. Secure the switch on the rack rails by tightening the screws.



4. Insert screws into the other two cage nuts and tighten them.



Ensure the switch unit is **grounded** before powering **On**.

1.1.2. Unmounting

- Turn the switch **off**.
- Hold the switch carefully and unscrew the screws on the sides of the switch that is firmly secured on to the rack-plate.
- Gently unmount and remove.

1.2. Power Supply Module

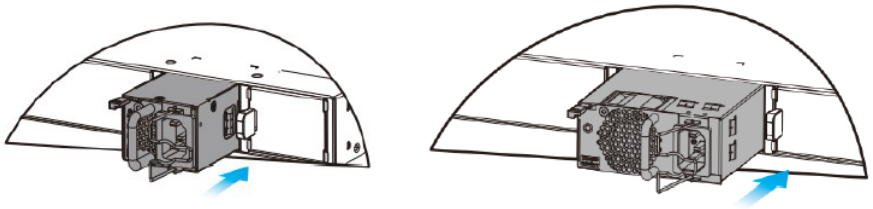
Wear an anti-static wrist strap before performing the following operations.

1.2.1. Mounting

Please read the following instructions to ensure proper installation:

Make sure the switch is **Off**.

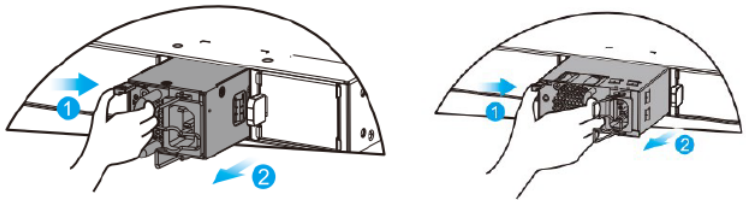
1. Remove the module from its packaging and ensure that the input specifications meet the requirements.
2. Remove the blank filler panel from the empty slot. Keep the module nameplate facing upward. Grasp the handle with one hand and place your other hand under the module to support its weight. Slide the module all the way into the slot along the guide rail until you feel the connector snap into place.



- Slide the module into the slot and verify that it is in the correct orientation.
- If you have difficulty fully inserting the module, pull it out, align it with the guide rails, and slide it in again.

1.2.2. Unmounting

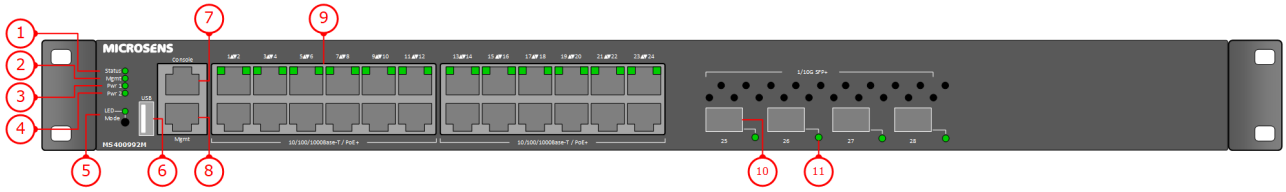
1. Press the latch on the module and grasp the handle with one hand. Place your other hand under the module to support its weight. Pull the module fully out of the slot.
2. Install the filler panel in the empty slot. Place the removed module back into its packaging.



- Pull the module out of the slot gently.
- Install the filler panel in the empty slot to allow for adequate airflow.

2. MS400992M

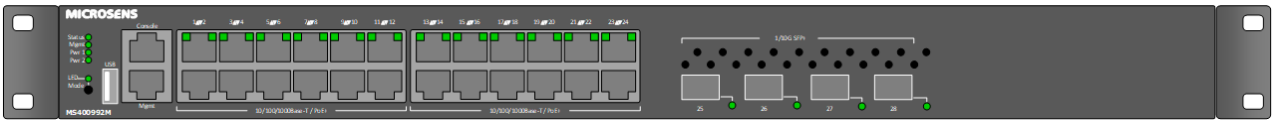
2.1. Interface



1. System Status LED
2. Management Port LED
3. PWR1 Status LED
4. PWR2 Status LED
5. LED Mode Indicator and Button
6. USB A-Port
7. Console Port
8. Management Port
9. 10/100/1000Base-T Ethernet Ports
10. 10GBase-X SFP+ Ports
11. Port LED

1. Grounding Stud
2. Power Supply Module Slot 1 (A filler panel is required if the slot is vacant.)
3. Power Supply Module Slot 2 (A filler panel is required if the slot is vacant.)

2.2. Notifications



2.2.1. System Status LEDs

Panel ID	Color	Status
Status	*off*	System is not powered on
	green (blinking) (3 Hz)	System is being initialized. Continuous blinking indicates a fault.
	green (blinking) (10 Hz)	System is being located
	green	System is operating normally
	yellow	The temperature at the air intake and exhaust vents exceeds the threshold
	red	• The temperature at the air intake and exhaust vents exceeds the threshold greatly • System is not functioning properly

2.2.2. Power Status LEDs

Panel ID	Color	Status
PWR1/PWR2	*off*	The power supply module is not connected
	green	The power supply module is connected and providing power to the switch
	yellow	The model of the power supply module is not supported or cannot be identified
	red	The redundant power supply module is not functioning properly or not connected with the AC power cord

2.2.3. Management Port LED

Panel ID	Color	Status
MGMT	*off*	No link is detected for this port
	green	The port has made a successful 1000 Mbps link
	green (blinking)	The port is sending and receiving traffic at 1000 Mbps
	yellow	The port has made a successful 10/100 Mbps link
	yellow (blinking)	The port is sending and receiving traffic at 10/100 Mbps

2.2.4. LED Mode Indicator

Panel ID	Color	Status
LED Mode	*green*	Switching status
	yellow	PoE status

| The LED Mode button allows you to change the LED mode

2.2.5. Twisted Pair Port LEDs

Panel ID	Color	Ethernet Port Status	PoE Status
1 to 24	*off*	No link is detected for this port	PoE is disabled
	green	The port has made a successful 10/100/1000 Mbps link	PoE is enabled
	green (blinking)	The port is sending and receiving traffic at 10/100/1000 Mbps	PoE overload occurs

2.2.6. Fiber Port LEDs

Panel ID	Color	Status
25 to 28	*off*	No link is detected for this port
	green	The port has made a successful 1/10 Gbps link
	green (blinking)	The port is sending and receiving traffic at 1/10 Gbps

2.3. MS400992-AC

The MS400992M switch supports the MS400992-AC swappable power module. The MS400992-AC is an AC module providing an output voltage of 56 V and an output power of up to 600 W (PoE power: 370 W).

The switch includes a single power supply by default. An additional power supply module can be optionally installed. The switch supports 1+1 power redundancy when the PoE power consumption is less than 370 W and both power supply modules are installed.

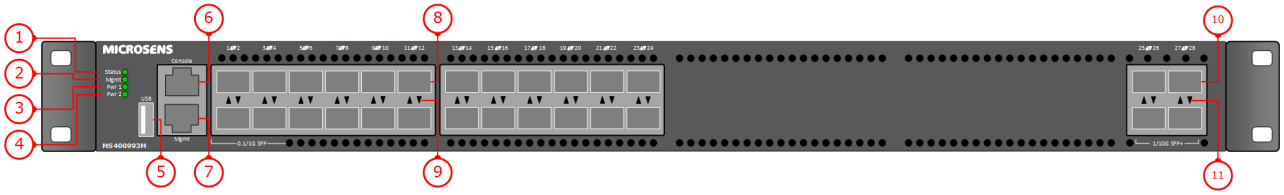
Utilizing a second power supply unit offers the advantage of significantly increasing the PoE+ power budget. In addition to providing redundancy, the second power supply also enhances the available power. With a single power supply module installed, the PoE power budget per port is 15W, whereas with two power supply modules, it increases to 30W.

2.3.1. LED

Color	Status
off	The power module is not connected with a power cord.
solid red	A power output error due to various reasons, including a fan fault, output short circuit, output overcurrent protection, output overvoltage protection, power supply failure, or overheating protection.
solid green	The power module is outputting power normally.

3. MS400993M

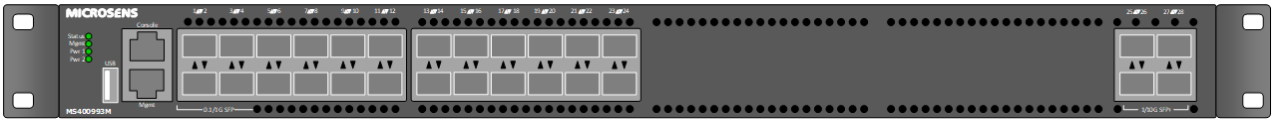
3.1. Interface



1. System Status LED
2. Management Port LED
3. PWR1 Status LED
4. PWR2 Status LED
5. USB Port
6. Console Port
7. Management Port
8. 100/1000Base-X SFP Ports
9. 100/1000Base-X SFP Port LEDs
10. 10GBase-X SFP+ Ports
11. 10GBase-X SFP+ Port LEDs

1. Grounding Stud
2. Power Supply Module Slot 1 (A filler panel is required if the slot is vacant.)
3. Power Supply Module Slot 2 (A filler panel is required if the slot is vacant.)

3.2. Notifications



3.2.1. System Status LEDs

Panel ID	Color	Status
	off	System is not powered on
	green (blinking) (3 Hz)	System is being initialized. Continuous blinking indicates a fault.
	green (blinking) (10 Hz)	System is being located
Status	*green*	System is operating normally
	yellow	The temperature at the air intake and exhaust vents exceeds the threshold
	red	• The temperature at the air intake and exhaust vents exceeds the threshold greatly • System is not functioning properly

3.2.2. Power Status LEDs

Panel ID	Color	Status
	off	The power supply module is not connected
	green	The power supply module is connected and providing power to the switch
PWR1/PWR2	*yellow*	The model of the power supply module is not supported or cannot be identified
	red	The redundant power supply module is not functioning properly or not connected with the AC power cord

3.2.3. Management Port LED

Panel ID	Color	Status
	off	No link is detected for this port
	green	The port has made a successful 1000 Mbps link
MGMT	*green (blinking)*	The port is sending and receiving traffic at 1000 Mbps
	yellow	The port has made a successful 10/100 Mbps link
	yellow (blinking)	The port is sending and receiving traffic at 10/100 Mbps

3.2.4. Fiber Port LEDs

Panel ID	Color	Status
	off	No link is detected for this port
1 to 24	*green*	The port has made a successful 100/1000 Mbps link
	green (blinking)	The port is sending and receiving traffic at 100/1000 Mbps
	off	No link is detected for this port
25 to 28	*green*	The port has made a successful 1/10 Gbps link
	green (blinking)	The port is sending and receiving traffic at 1/10 Gbps

3.3. MS400993-AC

The MS400993M switch supports the MS400993-AC swappable power module. The MS400993-AC is an AC module providing an output voltage of 12 V and an output power of up to 70 W.

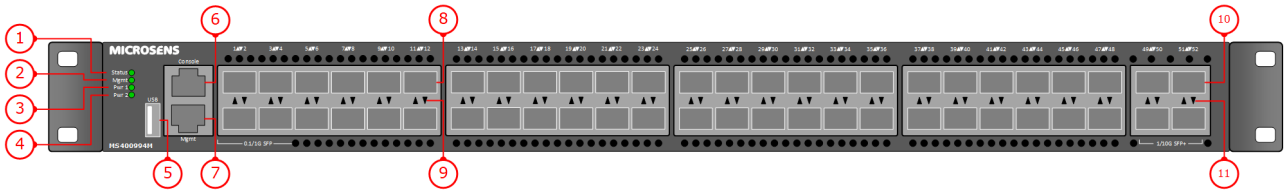
The switch includes a single power supply by default. An additional power supply module can be optionally installed. When both power supply modules are utilized, the switch operates in power redundancy mode.

3.3.1. LED

Color	Status
off	The power module is not outputting power normally.
solid green	The power module is outputting power normally.

4. MS400994M

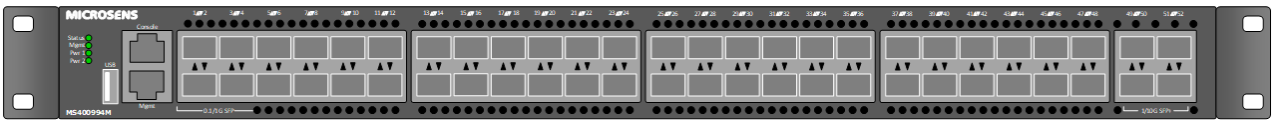
4.1. Interface



1. System Status LED
2. Management Port LED
3. PWR1 Status LED
4. PWR2 Status LED
5. USB A-Port
6. Console Port
7. Management Port
8. 100/1000Base-X SFP Ports
9. 100/1000Base-X SFP Port LEDs
10. 10GBase-X SFP+ Ports
11. 10GBase-X SFP+ Port LEDs

1. Grounding Stud
2. Power Supply Module Slot 1 (A filler panel is required if the slot is vacant.)
3. Power Supply Module Slot 2 (A filler panel is required if the slot is vacant.)

4.2. Notifications



4.2.1. System Status LEDs

Panel ID	Color	Status
	off	System is not powered on
	green (blinking) (3 Hz)	System is being initialized. Continuous blinking indicates a fault.
	green (blinking) (10 Hz)	System is being located
Status	*green*	System is operating normally
	yellow	The temperature at the air intake and exhaust vents exceeds the threshold
	red	• The temperature at the air intake and exhaust vents exceeds the threshold greatly • System is not functioning properly

4.2.2. Power Status LEDs

Panel ID	Color	Status
	off	The power supply module is not connected
	green	The power supply module is connected and providing power to the switch
PWR1/PWR2	*yellow*	The model of the power supply module is not supported or cannot be identified
	red	The redundant power supply module is not functioning properly or not connected with the AC power cord

4.2.3. Management Port LED

Panel ID	Color	Status
	off	No link is detected for this port
	green	The port has made a successful 1000 Mbps link
MGMT	*green (blinking)*	The port is sending and receiving traffic at 1000 Mbps
	yellow	The port has made a successful 10/100 Mbps link
	yellow (blinking)	The port is sending and receiving traffic at 10/100 Mbps

4.2.4. Fiber Port LEDs

Panel ID	Color	Status
	off	No link is detected for this port
1 to 48	*green*	The port has made a successful 100/1000 Mbps link
	green (blinking)	The port is sending and receiving traffic at 100/1000 Mbps
	off	No link is detected for this port
49 to 52	*green*	The port has made a successful 1/10 Gbps link
	green (blinking)	The port is sending and receiving traffic at 1/10 Gbps

4.3. MS400994-AC

The MS400994M switch supports the MS400994-AC swappable power module. The MS400994-AC is an AC module providing an output voltage of 12 V and an output power of up to 150 W.

The switch includes a single power supply by default. An additional power supply module can be

optionally installed. When both power supply modules are utilized, the switch operates in power redundancy mode.

4.3.1. LED

Color	Status
off	The power module is not outputting power normally.
solid green	The power module is outputting power normally.

5. Network Management Acceess

The web function is enabled by default. The default IP address is **"192.168.1.200"**, and the default **username** and **password** are **"admin"**.

Before logging into the web UI for the first time, connect the PC to the switch's management port (MGMT) using an RJ-45 cable. Configure the PC's IP address to be in the same subnet as the default IP address (192.168.1.x). Then, access the web UI using the default IP address, username, and password.

Upon successful first-time login, the system will prompt you to change the password.

For better network security, it is recommended to regularly update your login password.

5.1. Web browser

Google Chrome is recommended. Using an unsupported browser may result in issues such as garbled characters or formatting errors. If an issue occurs due to an outdated version of Google Chrome, it is recommended to upgrade to the latest version.

5.2. Management Software NMP

With the Network Management Platform (NMP) MICROSENS offers a universal management software for the central configuration and administration of all MICROSENS devices. The clearly structured graphical user interface and intelligent mechanisms greatly simplify the tasks for the administrator.
The software interface offers a number of languages. The latest version is available for download from our website:

- www.microsens.com **>** Support **>** NMP

A license key is required to operate this software. A test licence is available either from your MICROSENS products sales partner or directly from MICROSENS Sales (sales@microsens.de).

6. Firmware Updates and Further Information

You have access to current firmware versions and further information once you have registered on our website:

- Register: www.microsens.com **>** Login (Top right position) **>** Please follow the link 'Not registered?' **>** Fill out the e-mail opened automatically and send it to us.
  - MICROSENS will send you an e-mail containing a user name and password.
- Login: www.microsens.com **>** Login **>** Enter your user name and password. **>** Click the button 'Login'.
  - Firmware images: Please navigate to the specific switch product page, the firmware files are listed in the secured download area. To find your switch quickly, enter the item number of your switch into the search box on the website.
  - Further information is also available in the public and secured download area.

For further questions, please contact our support:

- www.microsens.com **>** Support **>** Support Portal
- By phone under +49 (0)2381 9452-345 (Mo. - Fr., 8:00 AM - 4:00 PM CET)

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