

1. General

The management module offers the complete functionality of the SNMP/web based management. For operation of the management several configurations are necessary.

After the hardware installation the configuration is done with a terminal connection at the RS-232 port of the module.

2. Installation

The module is inserted into an empty slot of the modular chassis. The management module requires one slot (6TE).

Before installing the module the settings of the DIP-switches should be checked (see fig. 4/5).

The installation can be done during operation (hot swap). To do this, remove the blind cover (see Fig. 3). The module is inserted with the PCB on the left side (3HU system) or with the PCB to the bottom side (1HU system) and fixed with the screws.

3. Console / Configuration

For the configuration the agent has an integrated RS-232 port. The connection between the management module and a PC is done with a null modem cable (see fig. 3).

The factory default settings of the RS-232 port are (19.2/8/N/1):

19.200 Baud
8 data bits
no parity
1 stop bit

After IP configuration the agent can be also accessed via the IP-service Telnet. The login procedure is the same (see chapter 4).

4. Console / Login

For the login/logout functions there are two different user levels available:

- the admin level allows complete access to all functions of the agent (read and write rights)
- the user level offers only read right (no configuration, e.g. IP address are possible)

The settings for username/password can be changed and are offering max. 20 characters per entry. Factory default entries are:

- for read and write right:
Login: **admin**
Password: **microsens**
- for read right only:
Login: **user**
Password: **microsens**

5. Reset push-button switch

For a warm restart of the management agent and the integrated switch the module has an integrated reset push-button switch (see fig. 2). Releasing this switch deletes the memory and all connections are new initialized. The configuration settings (TCP/IP and so on) are unchanged.

Fig. 1: Modular converter system 3HU/1HU

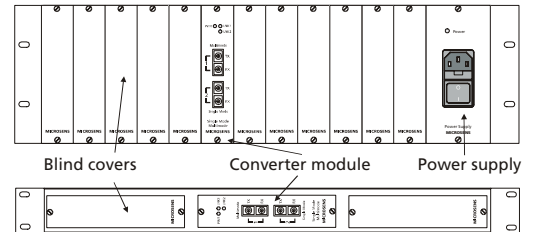


Fig. 2: Management module

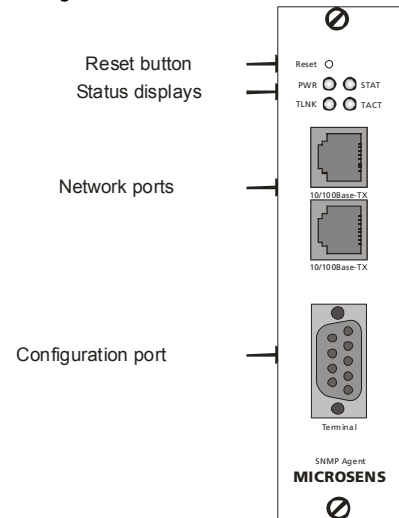
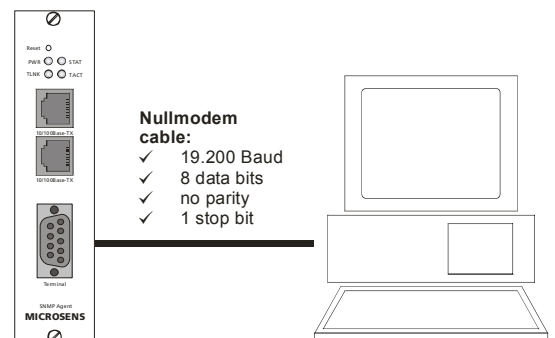


Fig. 3: Access via serial port (RS-232):



6. Network Connection

The management agent has an integrated switch and offers to Fast Ethernet ports (10/100Base-TX) for the network connection. Due to the automatic configuration via autonegotiation and autocrossing a manual configuration is not necessary.

The following services are available via the TCP/IP protocol:

- SNMPv1
- http/Web
- Telnet

To use the second RJ-45 port also as an Ethernet port, it is necessary that the configuration switch (see fig. 4) is set to the left position (see fig. 5).

7. SNMP – Management (MIB)

To access the data of the managed converter via the SNMP it is necessary to integrate the data structure of the MIB (Management Information Base) into the existing network management. The structure of the MICROSENS MIB can be loaded by http download from the MICROSENS web manager. The MIB file is in ASCII format.

8. Web-based Management

This function can be used with every standard browser (see fig. 8). Only the TCP/IP address of the management agent has to be typed in the location bar of the browser. There are no special requirements for the browser.

In the menu point console it is possible to deactivate the use of graphics or to deactivate the web access completely.

9. Software Upgrade with FTP

Fir updating the firmware it is necessary to activate the FTP-server either per web-based or console. The login has to be done in the admin level. The upload of the files are in binary mode! The process takes approx. 2 minutes. The status is displayed via the console. During the upload of the firmware it is not allowed to switch off the device. If there is no valid firmware image is transmitted after a certain time, the FTP-server deactivates himself and the management features are active

Important: After the start of the FTP server there are not all TCP/IP services available (only FTP, ping etc.). For the web based and SNMP platforms the device is not visible when the FTP server is started (LED "Stat" is on). The functions of the access modules inserted in the chassis are not interrupted by the firmware update.

10. LED displays

The management module has four LEDs for diagnostics. The power LED (PWR) indicates the power status of the management module. After installation and during normal operation this LED is on.

The two LEDs "LNK" and "ACT" give status information about the Ethernet port. Shown are link status (LNK) and data traffic (ACT) of the network port.

The "STAT" LED shows the status of the FTP server. In normal operation the FTP server is not active, so the LED is off.

11. Safety Notes

Electromagnetic discharge can destroy electronic components. To avoid destructions:

- if possible use antistatic bracelet, which is connected to a 19"-rack
- touch the 19"-rack for several seconds while holding the unpacked management module, to discharge yourself and the module
- take out the module out of the antistatic package only direct before the installation
- do not touch conductive parts (components, soldering points, conductor line) and hold the module only at the mounting panel

Fig. 4: Position switch

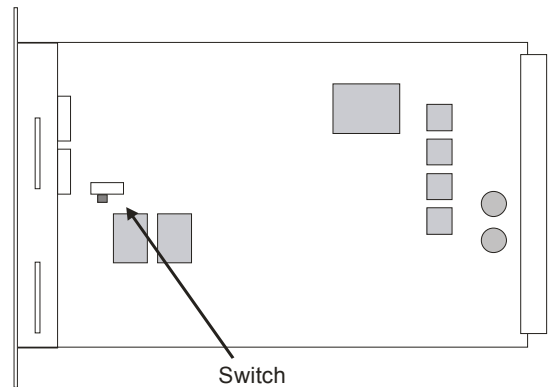


Fig. 5: Configuration of the switch

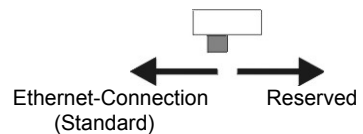


Fig. 6: LED displays

LED	Status	Description
PWR	On	Module ready for operation (default status)
	Off	Malfunction, replace if necessary
LNK	On	At least one of the network ports active
	Off	No network connection
ACT	On	Data traffic on at least one of the Ethernet ports.
	Off	No data traffic per Ethernet
STAT	On	FTP-Server for Software-Upgrade started. <i>There are no management information available at the Ethernet port!</i>
	Off	Normal operation per SNMP, Web, Telnet