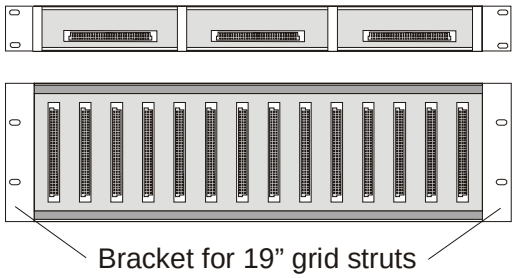
MICROSENS	English	Installation and Operating Instructions for media converter module multimode/single mode	15.03.01 DH

1. Installation in 19” rack

The modular 19” system is designed for the mounting in industrial racks with standard 19” measurement. MICROSENS offer the system with 1 HU and 3 HU (see Fig.1). The special nuts for fixing the chassis in the rack are not included at delivery. They are accessories of the 19” rack.

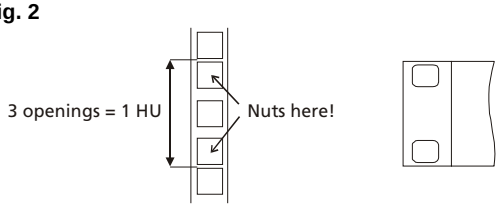
Fig. 1



2. Mounting the 1 HU chassis in a 19” rack

The 19” grid struts have special openings (3 per HU) for mounting the nuts. 1 HU is marked specially with small spaces between the openings (see Fig.2). For each 1 HU chassis 4 nuts must be used. After mounting the nuts the chassis can be fixed with the screws.

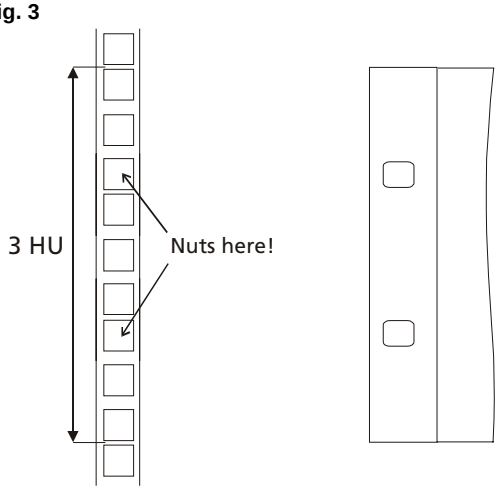
Fig. 2



3. Mounting the 3 HU chassis in a 19” rack

For the installation 3 HU (9 openings) are neccessary. The mounting of the nuts is done in the 3rd and 7th opening (See Fig. 3). Now insert the nuts and fix the chassis with the screws.

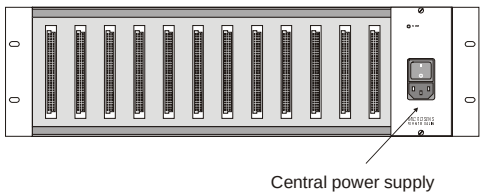
Fig. 3



4. Power supply

The power supply of the 19“ rack is done over the backplane by a central power supply. For high demand on security a second power supply can be installed for redundancy. The installtion of the power supply is done from the front side (see Fig 4). A two coloured LED shows the status of the power supply (Green: ready for operation, red: failure).
The 1 HU chassis has an internal integrated power supply. Optional it is also availibe with redundat power supply.

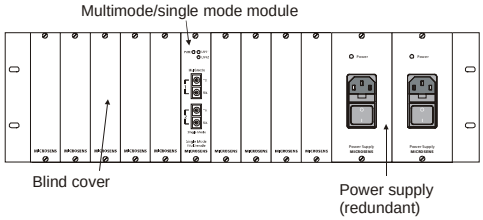
Fig. 4



5. Blind covers

For better air circulation and EMC shielding all unused slots must be covered with blind covers (see Fig. 5). These blind covers are not included and must be ordered seperated.

Fig. 5



6. Management

Beside the power supply bus the 3 HU chassis MS416001M has an additional management bus. Due to this it is possible to use the converter modules with management option. The management functionality itself is offered by the management module MS416020. Also the converter modules must support the management. The management option at the converter is marked with an "M" extension in the article number (e.g. MS416xxxM).

7. Installing the insertion module

A free slot is necessary for this insertion module. Remove the blind cover (see Fig. 6). After configuring, the module is inserted left flushed and fixed with the screws.
Please keep the blind cover for later reinstallation.

Fig.. 6: Installation

8. Connections

Building up a fiber connection, please take care that transmit (TX) is always connected to receive (RX).
Attention: For a successful connection setup, following notes have to be considered:

- The optical port of the opposite side must have the same wave-length. This must be at the multimode as well as at the single mode side.
- Pay attention to the optical budgets. Plese refer to the data-sheet of the module.
- Especially the single mode components for long distances have a very high optical power. Mainly in combination with components other manufacturers, this can cause a saturation. Take care of the saturation levels!
- These converters include a link detect function. Only when the converter receives a valid link signal, the other port is initialized (see Fig. 8).

Fig. 7: Construction

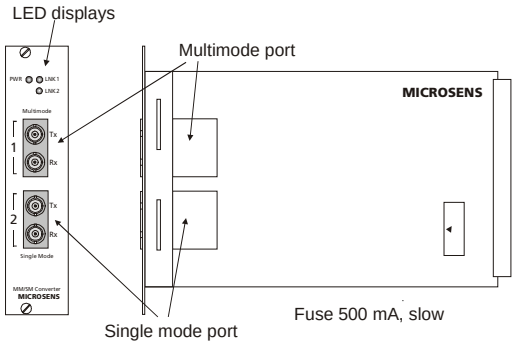
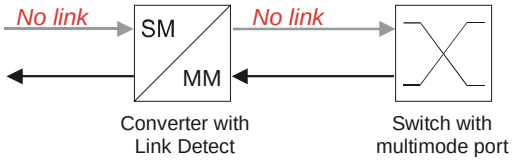


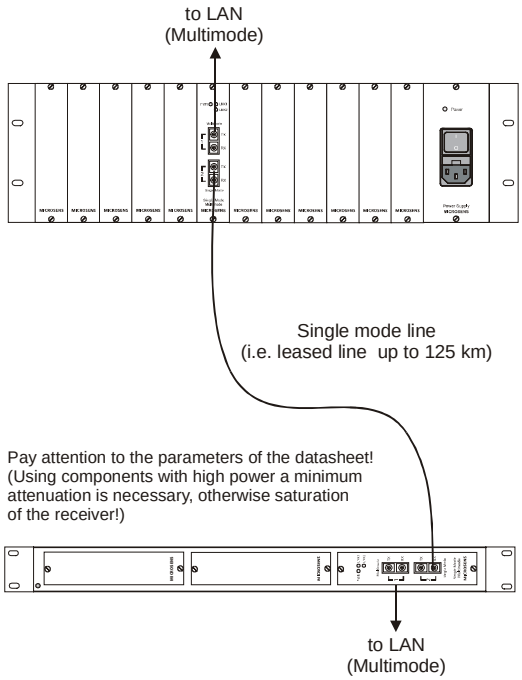
Fig. 8: Link Detect



9. Power Supply of the Module

The power supply of the module is done by the central power supply over the backplane. The module has a secondary fuse see Fig. 7). The value of this fuse is 500 mA, slow.

Fig. 9: Configuration example



10. Problems during data transmission

The multimode/single mode converter are working protocol independent. Nevertheless, in spite of a correct connection establishment, the correct functionality can not be guaranteed. Some special protocols need special conversions (i.e. FDDI, ESCON®). More information about this at:
http://www.microsens.com

11. LED displays

To monitor the operation and connection status the converter has 3 LEDs (see Fig. 7). The function of these LEDs is described in figure 10.

Fig. 10: LED displays

LED	Status	Description
PWR	On	Ready for operation
LNK1	On	Multimode connection active
LNK2	On	Single mode connection active

12. Monitoring functions (optional)

If the module is prepared for the management (extension „M“ in the article number), it is possible to access via the SNMP/web based management module information about the connection status of each port, operating temperature, article and serial number.