**THERMOTEX**

Important note
For setting up HF RFID reading systems (13.56 MHz)

Setting up the workstation

- <u>Basically, a minimum distance of 50 cm should be kept between the antenna and larger metallic objects.</u>

- Make sure that there is enough distance between the antenna and the table frame, if it is made of metal.

- Metal parts should not form closed loops (e.g. table frame), if necessary these must be interrupted by construction.

- Do not use a table top made of metal or with metal inlays. (Ideal: wooden or plastic table!)


50 cm
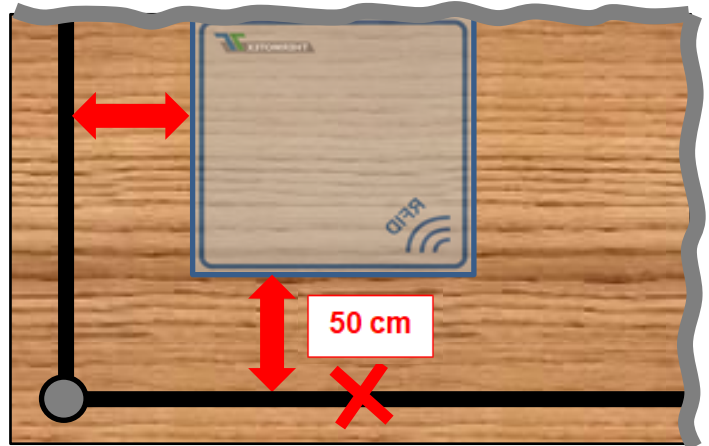
The antennas are adjusted ex works to a metal-free environment. If it's not possible to avoid larger metal objects in the vicinity of the antenna and this results in a poor reading performance, the antenna can be specially tuned to this environment.
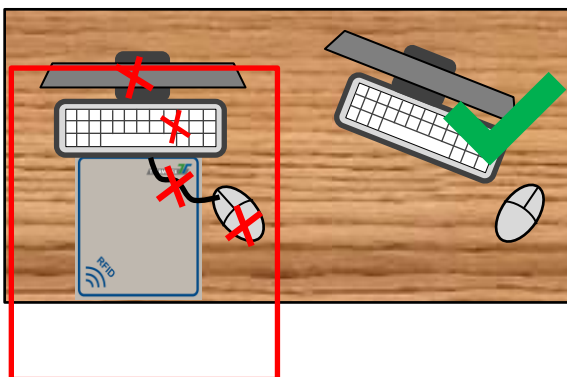
- Make sure that keyboard or mouse is not lying on the antenna. A minimum distance of 20 cm should be maintained.

- Arrange the PC system (PC, monitor, keyboard) to the left or right of the table antenna.
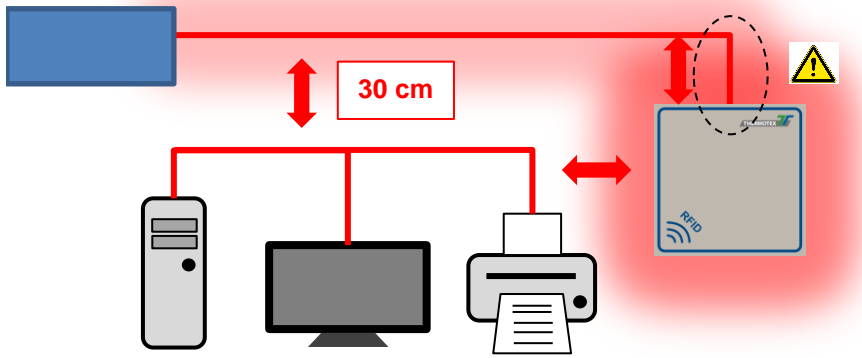
Tip: Mark the area of the antenna surface on the table top with an adhesive foil or tape.

- Do not place any peripheral devices, such as printers, under the table in the area of the antenna.

- Do not run any cables in the area of the antenna. Arrange them on the side of the table.

- Fix the antenna cable and the PC system cable to the table, e.g. with cable ties.
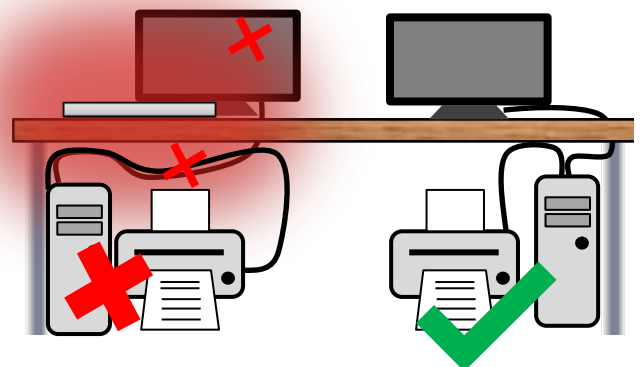
Document name	Document type	Abbreviation	Page
MH_HFLS_GB_V(0).docx	Customer documentation	MH_HFLS_GB	1/2

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- Guide the antenna cable vertically away from the antenna, do not attach the antenna cable to the antenna.

- Keep the antenna cable at least 30 cm away from other cables.

If several systems are to be operated in one working area, a minimum distance of 5 m between the antennas must be maintained.

5 Meter
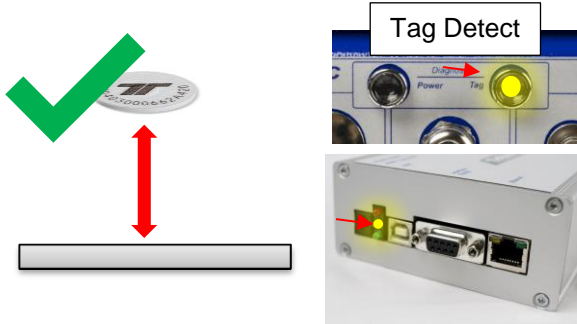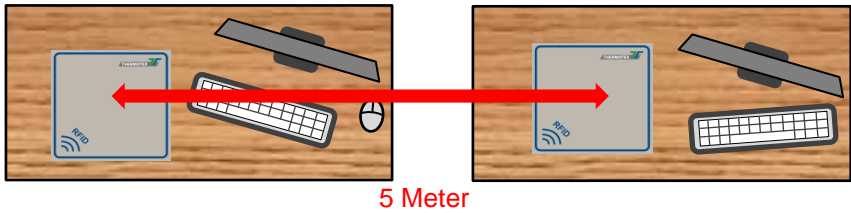
Tag Detect

Check the reading range of the antenna after installation with a tag by observing the "Tag Detect LED" on the reader. This LED lights up as soon as a tag is read. In case of doubt you can compare the reading range of the tag between installed and non-installed state. Ideally there should be no difference. (The maximum reading range depends on the diameter of the tag and reading system.)

Disturbances of the reading system by external sources

Generally, all electrical devices in the immediate vicinity <u>can</u> influence the system.

This applies in particular to:

- Computers and peripheral devices such as monitors, printers, mouse and keyboard
- Network cables, power lines
- Cordless phones and smartphones
- Connector power supplies, switching power supplies
- Frequency converters, even if they are several meters away

If, despite consideration of the instructions, tags are read poorly or not at all, this can be caused by electrical interference as described above.

1. In this case switch off all peripheral devices in the vicinity of the workstation. <u>Disconnect the plugs from the socket!</u>

2. Now check the reading performance with a tag by observing the Tag Detect LED of the reader. If the result should now have improved significantly, switch on the devices one after the other and put them back into operation.

3. Check the reading performance after each step. If the reading range deteriorates abruptly, the last device in operation will cause the electrical interference. Replace it (possibly defective) or contact our hotline (**Tel. +49 781/9616-36 E-Mail: hotline@thermo-tex.de**)

Document name	Document type	Abbreviation	Page
MH_HFLS_GB_V(0).docx	Customer documentation	MH_HFLS_GB	2/2

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