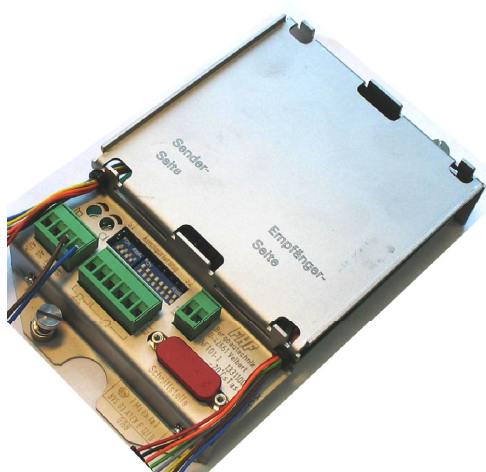


LF Interface Type NFT01-1

Order information

Name	Type	Part No..
LF Interface	NFT01-1	133 110 01 01AX



- For operation in mobile radio system MR 90
- Processing of voice and signal frequencies
- Adjustable operation modes
- 12 V electric power supply
- Explosion protection category: I M 1 Ex ia I

Description

The LF Interface Type NFT01-1 is part of the intrinsically safe radio system MR90 for underground use and serves to adapt the peripheral components to the RF transmitter Type HFS.. (Art.-Nr. 133 010 01 AX or 133 010 02 AX) and RF receiver Type HFE.. (Art.-Nr. 133 020 01 or AX 133 020 02 AX).

In the NFT01-1 a processing of the voice and signal frequencies in transmit and receive direction is done.

The 12 V power supply, microphones, signal buttons and loudspeakers, as well as RF transmitter and receiver are connected to the NFT01-1.

At a 15 pin D-Sub socket, LF- and control signals for additional functions (e.g. selective-call) can be connected.

The LF interface is functionally placed between LF (like microphone and loudspeaker) periphery and the RF modules. In transmit direction the voice (LF) signals generated by the microphone (if the microphone's push-to-talk (PTT) key is pressed) are led through a pre-amplifier and an additional amplifier to a dynamic-compressor. Through a pre-distorter (pre-emphasizer), which emphasizes the higher frequencies, the signals are conducted through the connection line (output NFin) to the RF transmitter. The tone frequencies of two signal generators can be activated via exter-

nal contacts and they are injected into the transmit path directly behind the microphone pre-amplifier.

On pressing the microphone (PTT) or signal button a potential-free optocoupler output contact is closed, which is accessible at the terminals KL3.1 and KL3.2. By this means the actuation of a key can be transmitted via a connected remote control system, e.g. for mute-control of the remote station's loudspeaker.

In receive direction the demodulated RF signals coming from the RF receiver via the LF input (NFin) are passed to the loudspeaker through a post-distorter (de-emphasizer), compander and a power-amplifier.

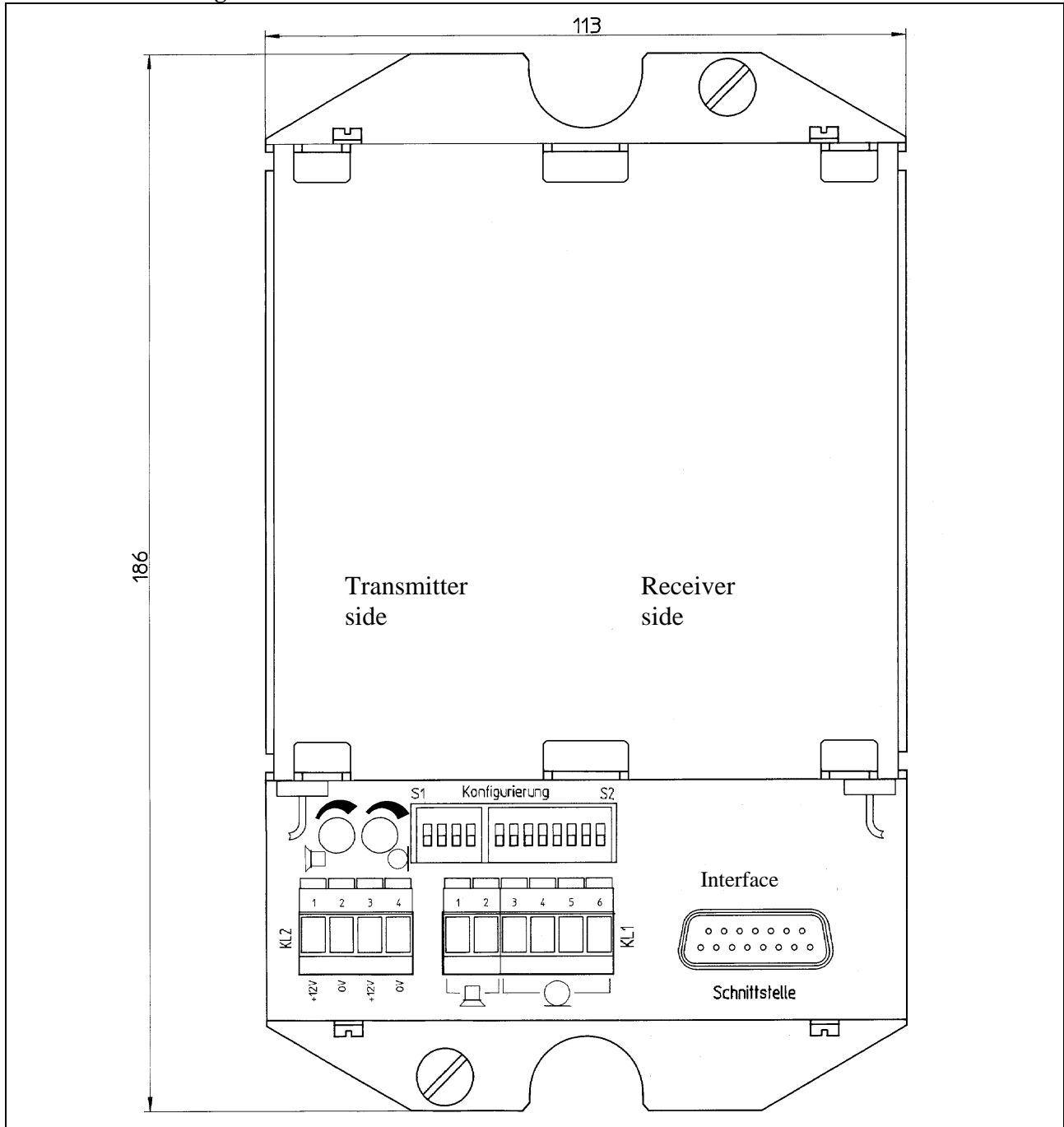
A control logic coordinates this processing. The different operation modes are selectable with two DIP switches (S1, S2). The volume of the loudspeaker amplifier and the gain of the microphone pre-amplifier can be adjusted by two potentiometers which can be accessed through two holes in the NFT01-1's enclosure.

Construction

The LF interface has an angled sheet-steel profile housing.

The module is fastened with two captive screws in the bottom of the NFT01-1 housing.

Dimensional drawing



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