



ND277-v2 AMS D090522

Technical documentation

MW-UDB / MW-UDG



Contents:

1	Introduction	3
2	Specifications	3
3	Variants	3
4	Wires	4
5	Front buton	4
6	LED Control	4
7	Interfejs 1-WIRE	4
8	BOOTLOADER - updating the firmware version	4

1 Introduction

MW-UD is RFID reader operating on the principle of contactless reading data from Unique transponder.

Unique transponder has a unique 40-bit identification number stored permanently (the number is unique to each transponder). The reader sends this number using 1-wire bus in a format compatible with the Dallas DS1990.

2 Specifications

Specification	
Supply voltage	7...25V
Supply current	max. 120 mA (typ. 25mA)
Operating frequency built-in antenna	125 kHz
The speed of reading data from the transponder	RF/64 (1953b/s)
Switching voltage LED color	3...14V
Max. range readings	Do 6 cm
Antenna	Built-in device
Interface	1-WIRE (DALLAS DS 1990)
Dimensions	83 x 44 x 14 mm
The distance between the retaining pins	42 mm
Voltage failure reader	+/- 30 V
IP rating	IP54
Humidity	< 95%
Temperature range	-20 ... +50°C

3 Variants

The MW-UD reader is available in two color variants:

- MW-UDB – black
- MW-UDG – gray



4 Wires

Wire	Description
Brown	Vcc (+)
White	GND (–)
Green	1-WIRE / UART TX (bootloader)
Yellow	LED Control / UART RX (bootloader)

5 Front button

The MW-UD reader is equipped with a capacitive front button. Pressing the button causes the 1-WIRE bus to be shorted to ground. Pressing the button is signaled by an acoustic signal.

6 LED Control

After connecting the reader to the power supply, the LED diode turns red. Feeding the control input (yellow wire) with +3 .. + 14V voltage causes the change of color to green.

7 Interfejs 1-WIRE

1-WIRE interface is used to transmit read the ID of the applied transponder. The device supports the command READ_ROM and SEARCH_ROM.

8 BOOTLOADER - updating the firmware version

To update the modem firmware version:

1. Connect a device in which firmware we are to update to serial interface of computer.
2. Run program NEFIR3.exe.
3. Select MW-UD from the Device list
4. Select the firmware that you want to upload to the device
5. Set the interface operation speed to 9600bps and the address to 0x01.
6. Press the START button.

If reloading does not start automatically, put the unit into BOOTLOADER mode by resetting the unit.