

bibi-R21

Transponder reader with LCD display



Technical data:

- identifiers: Unique transponders
- readout system: 125 kHz, ASK, Manchester
- range of card readout: at least 5 cm
- registered events: entrance/exit normal and business
- connection: RS232 interface (9600 baud)
- controlling: bibi system controller
- connection length: up to 20 m
- power supply voltage: 12V DC
- current consumption: 150 mA
- dimensions: 144 x 83 x 23 mm
- operating temperature: 0°C...+40°C
- available colours: black, light-gray

General device characteristics

The **bibi-R21** reader is destined for transponder (proximity cards) readout. It works at 125 kHz frequency and reads Unique type transponders with Manchester coding.

The reader cooperates with a **bibi** system controller by sending it card numbers.

The LCD display shows current time (sent from the controller). Employees can use it to display other information from the system like the number of worked-through hours during the month.

The reader has one button which is used to select the type of registered events and signal LEDs (arrows and 'S' symbol) which indicate the current setting. The controller communicates with the reader via 2 signal lines of the RS232 interface.

The **bibi-R21** reader is designed for indoor installations. It has a durable and aesthetic casing made of ABS material with an external screened cable, which contains all wires used to connect the reader.



Identifiers

The *bibi* system uses Unique type transponders. Each transponder of this type has its own 64-bit code, which is sent when the transponder is placed in the field of the reader's antenna.

Transponders can have different shapes and sizes. The size of a transponder depends on the size of the antenna used in it. Different sizes of antennas mean different readout ranges. The most popular are plastic cards and key-ring shaped transponders.

Registering events

The reader can register four types of events: normal entrance or exit and business entrance or exit. The type of event can be chosen by pressing the reader's button. The current type is signaled by the LED arrows and 'S' symbol. After the card is placed in the reader's field it sends the card's number and type of event to the controller.

The reader can be configured in a way to allow only entrances or only exits.

If the reader's button is pressed for a longer time, the reader goes into information mode (the display shows the word 'bibi'). In this mode if an employee's card appears in the reader's field information from the system will appear (for example - the number of worked-through hours).

Communication with the controller

Apart from sending to the controller card numbers and receiving controlling commands, the reader systematically sends its identification code to the controller. This allows the controller to alert the computer in case the connection with the reader is broken.

Connecting the reader

The reader is connected to the controller through the cable placed in the middle of the reader's back. Here are the functions of each wire:

Signal	Wire	Description
+12V	red	+12V power supply
GND	blue	ground (supply -)
E	screen	to controller's ground
TxD	green	sending channel of the RS232 interface
RxD	white	receiving channel of the RS232 interface

An example of a proper connection is shown on the following image:

