



RS-H0-06 BZ M12

RFID reader | 13.56 MHz | Mifare

Product Card



Before use...



Please do not open the reader and do not make any changes. This results in loss of warranty.



In case of any questions please contact with us. We certainly answer to all questions and solve possible problems.



Please carefully read the following information before connecting the reader.



Please keep in mind, that there are factors as metal surfaces, which can affect on radio communication and correct reader operation. It is advisable to consult the mounting conditions before use with our staff.



Please contact with us before sending damaged products.



We offer possibility to change input voltage range, cable length and terminate it with a plug. Before make an order please contact with us to determine the details.



General information

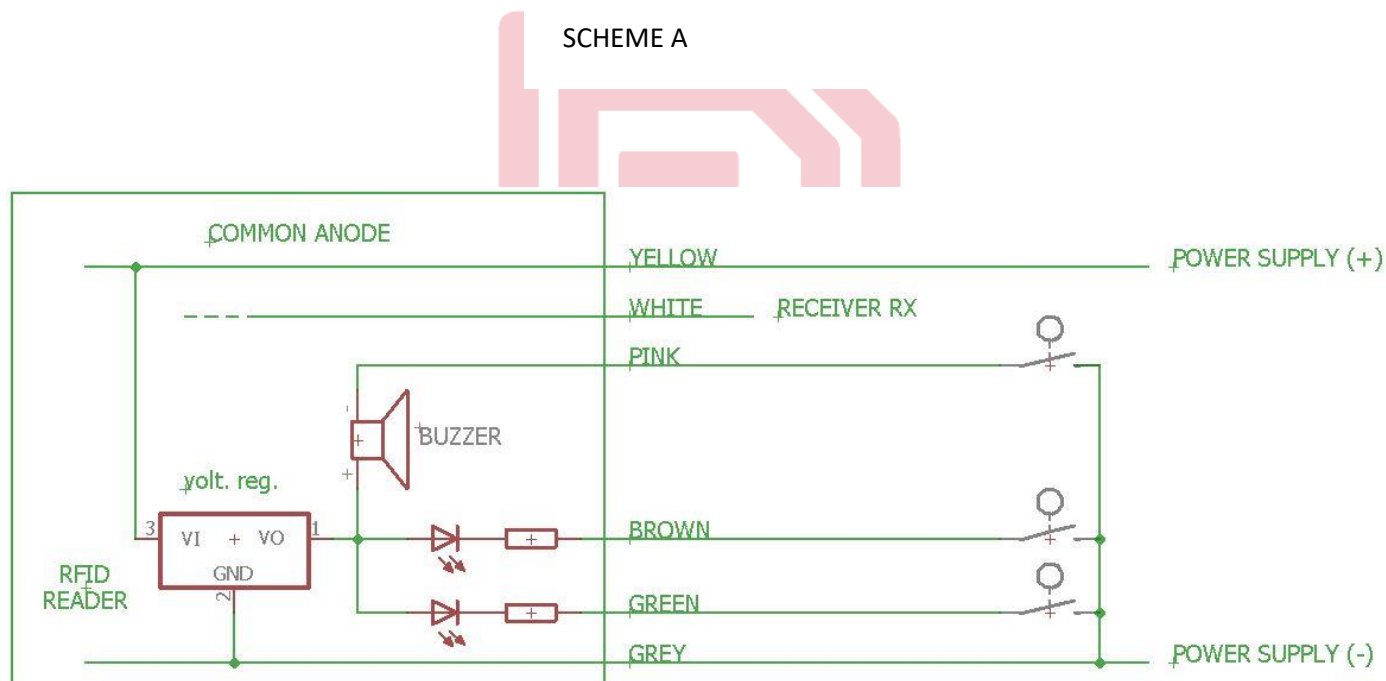
The RFID reader **RS-H0-06 BZ M12** reads identification data (UID) wireless of passive transponders (cards, tags, etc.) compatible with ISO/IEC14443-3-A (e.g. MIFARE cards). The built-in two-color LED and Buzzer for any use.

LEDs are powered by internal voltage regulator via built-in resistors. The light is on when the appropriate LED is connected to the minus of power supply.

BUZZER is activated when appropriate BUZZER output is connected to the minus of power supply.

Grey	-	power supply (-)
Yellow	-	power supply (+)
Green	-	green LED
Brown	-	red LED
White	-	TX
Pink	-	Buzzer

The reader should be connected according to the scheme "A".



Data format

The read data are sent as ASCII string via RS-232 TTL open collector. For transponder UIDs of 4 bytes, ASCII string of 12 signs is sent. While, for UIDs of 7 or 10 bytes, string of 18 or 24 bytes is sent.

For example, for UID of 4 bytes, data is sent in following order:

START	UID[3]	UID[2...1]	UID[0]	checksum CRC	STOP
0x0A	2 ASCII signs MSB LSB	4 ASCII signs MSB LSB	2 ASCII signs MSB LSB	2 ASCII signs MSB LSB	0x0D

Byte START and byte STOP help us identify the string we are receiving. Checksum is calculated as the XOR function of data read from the transponder.

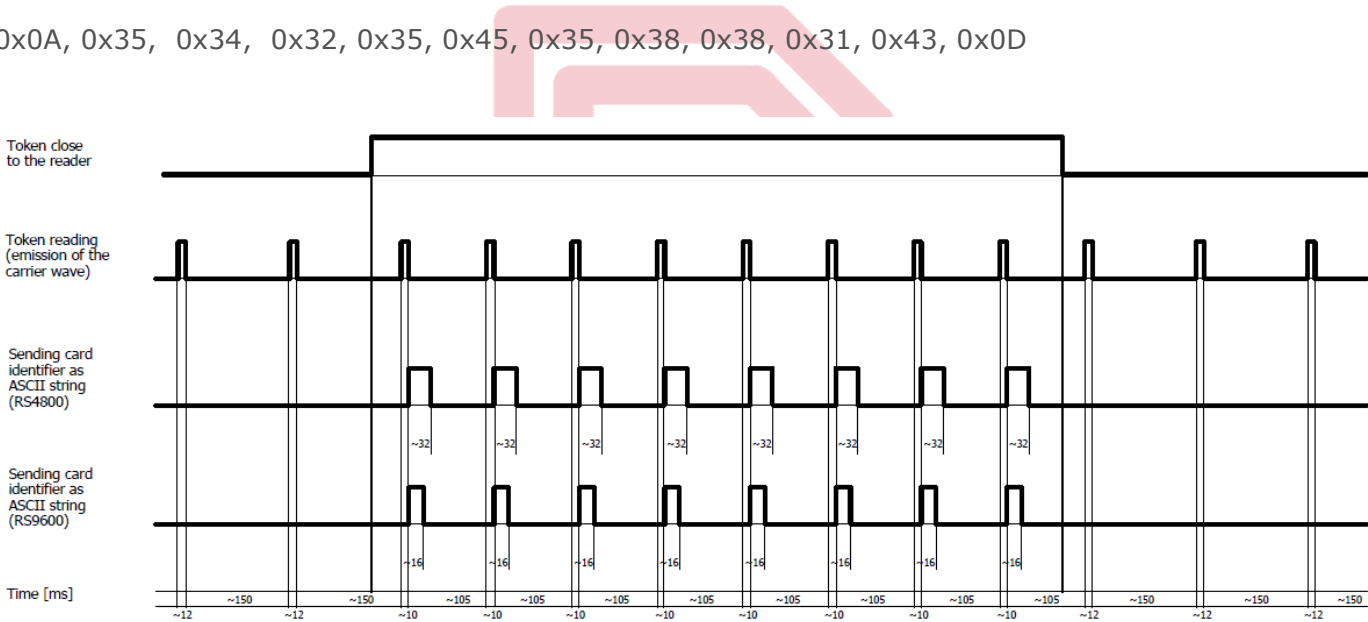
For example:

For card with UID = 5425E588h

CRC = (54h) XOR (25h) XOR (E5h) XOR (88H)=1Ch

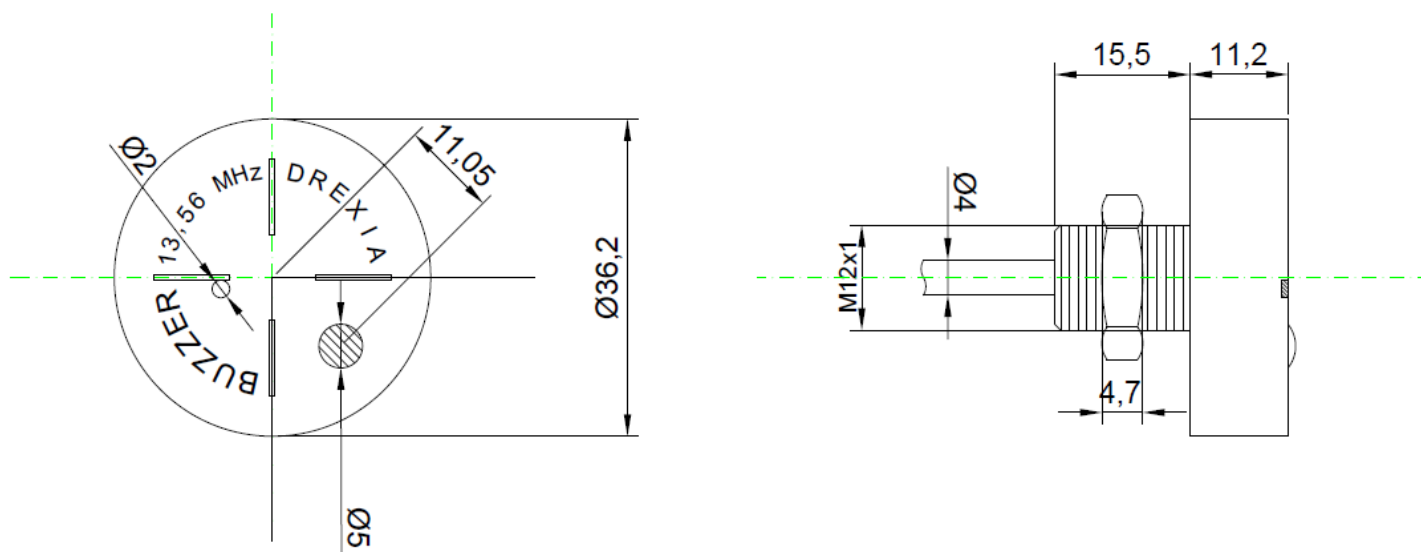
The following string will be output:

0x0A, 0x35, 0x34, 0x32, 0x35, 0x45, 0x35, 0x38, 0x38, 0x31, 0x43, 0x0D



1. The reader is waiting for the proximity of the token (card) trying to read it at a frequency of about 6 times per second (~ 12 ms [checking the presence of the card] + ~ 150 ms [gap between successive checks]).
2. After the token is approached, its identifier is read (~ 10 ms) and it is sent as ASCII character strings, in subsequent sequences (~ 105 ms).
3. After dismiss the token, the reader returns to the original reading about 6 times per second, waiting for the token to be re-approached.

External dimensions



Technical Data

Power supply	6,5-30 V DC (5-15V DC to order)
Nominal power supply voltage	12 V DC
Power supply efficiency	1 A
Peak current	160 mA
Average receiver current	15 mA (without LED)
Peak receiver current	45 mA
Green LED current	7 mA
Red LED current	7 mA
Buzzer current	50 mA
Frequency	13,56 MHz
Type of transponder	ISO/IEC14443-3-A
Surface of the antenna	8,6 cm ²
Reading range	~4cm
Reading frequency	6/s for identification 2/s when transponder is in range of the reader
RS232	TTL – open collector, active state 0, 4800 bps, 8 bits, without parity and 1 stop bit (8N1). Possibility of ordering 9600bps version.
Mounting method	M12 Thread
Cable length	0,4 m
Reader temperature	-20° C +55° C
ROHS	YES