

KRBox reader head with I2C/WIEGAND interface

This reader head is used to connect to the WBox_R control unit or to access systems of other manufacturers with the standard WIEGAND interface.



Versions of the KRBox reader head

WIST02A10.XX

.01	KRBox	125 kHz technology
.02	KRBox Mifare	MIFARE 13,56MHz technology
.04	KRBox Legic Advant	LEGIC 13,56MHz technology

Description of wires

Color	Meaning
Red	Power supply +12V DC
Blue	0 V
Green	SCLK/DATA0
White	SDATA/DATA1
Pink	Green LED
Brown	Red LED
Grey	Buzzer

Description of DIP switch

ON state	Meaning
1	Boot Loader
2	Address setting - 2. head (OFF state – 1. reader head)
3	Unused – reserved for future use
4	Unused – reserved for future use
5	Communication mode WIEGAND (OFF state – communication mode I2C)
6	Unused – reserved for future use



Technical parameters

Dimensions	116mm x 75 mm x1 7.3 mm
Weight	120g
Voltage/Power supply	9-30 V DC
Max. consumption	70 mA
RFID technology	EM Marin 125 kHz, HITAG1,HITAG2, MIFARE, LEGIC
Reading coverage	Approx 10 cm
Communication interface	I2C, WIEGAND 32 - defined when ordering
Signalization	2x LED, 1x Buzzer
Range of working temperatures	-25, +50°C
IP coverage	IP 65

Running test and controls

After connecting to the power supply voltage the reader head activates the green and red LED light and simultaneously turns on the buzzer for approximately 1 second. Afterwards all signalization features are brought into idle condition. After placing the ID card on the reader head, a green LED flashes and at the same time the buzzer activates to signal reading the card. All signalization features can be controlled by an external LO signal from the host device.

Montage

The reader head uses a passive RFID technology to work, which is sensitive to outside RF interference. This interference can be emitted either from the surroundings or from the power supply wires. The reader head mustn't be installed close to possible sources of electromagnetic fields. It is also advisable to use recommended power supply sources to limit the interference coming from the power supply wires. The interference by outside field is the bigger the more its frequency is similar to the working frequency of the reader head or the bigger its intensity is.

From this point of view the interference of reader heads between each other cannot be omitted as well. Therefore for correct function a minimal distance of 50 cm must be maintained between two reader heads. This distance can also be influenced by various metallic constructions (if there are any doubts about this it is better to perform a practical test on site before the final montage). The proper function of the reading distance can be influenced by metal surfaces nearby, which absorb electromagnetic fields or de-tune the antennas of the reader head. In this case we also recommend a practical test.

