

Reader head SBox_Finger

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 Sbox_Finger reader head

WIST02A2.F

Technical parameters

Communication interface	WIEGAND, I2C, RS232 – TTL level
Max. consumption	90 mA
Voltage/Power supply	12 VDC +/-10%
Dimensions	100x120x20
Weight	250 g
RFID technology	EM Marin 125 kHz, HITAG1,HITAG2, MIFARE, LEGIC
Reading coverage	Approx 10 cm depending on technology
Signalization	2x LED, 1x Buzzer
Range of working temperatures	-25, +50°C
IP coverage	IP 65

Technical parameters of the fingerprint scanning module SFM3550

CPU (processor)	400 MHz DSP
FLASH (memory size)	4 MB
ERR (equal error rate while scanning a fingerprint)	<0,1%
Enrollment time	< 550 – 850 ms
1:1 Verification time	< 550 – 850 ms
1:1000 Identification time	< 680 – 990 ms
Template size	384 bytov



Template capacity	9000
Template format	ISO19794-2 standard
Host communication	RS232, RS422/RS485
Wiegand interface	1x input, 1x output
Programable I/O	3x LED, 3x input, 3x output
Encryption	AES
Supply voltage	5V
Supply current – idle	110 mA
Supply current – scanning	115 mA
Supply current – idle (identification)	140 mA
Main board size	63 x 43 x 10 mm
Operating temperature	0 – 70 °C

Technical parameters of the TCI sensor

Sensor type	UPEK TCS1, capacitor
Resolution	508dpi
Sensing area	12,8 x 18 mm
Image size	256 x 360 pixels
Sensor size	27 x 20,4 x 3,5 mm
Operating temperature	-30 - +85 °C

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.

