



REGIS T-X-B – ACCESS or TIME AND ATTENDANCE CONTROLLER

The Regis is a controller with built-in proximity card reader and 7” LCD capacitive touch screen display. It is designed for residential and business buildings, offices, shops, etc. The controller can have 125kHz or 13.56MHz reading frequency.

The entire set-up procedure is carried out with the software. The controller allows access for up to 30000 users and saves 100000 events. If you bought the controller in time and attendance kit, then inputs and outputs cannot be controlled.

It can also be used as a Wiegand 26-bit reader, if needed.

The SDK is also available for this controller. If a user or software producer wants to develop its own application, please contact us.

TECHNICAL DATA

REGIS T-X-B	
REGIS T-1-B reading frequency	125kHz
REGIS T-1-B reading distance	Up to 15cm
REGIS T-1-B current consumption in standby mode	300mA
REGIS T-1-B reading field in vertical position	Bottom side of the controller
REGIS T-1-B reading field in horizontal position	Right side of the controller
REGIS T-3-B reading frequency	13.56MHz
REGIS T-3-B reading distance	Up to 7cm
REGIS T-3-B current consumption in standby mode	330mA
REGIS T-3-B reading field in vertical position	Bottom side of the controller
REGIS T-3-B reading field in horizontal position	Right side of the controller
Dimensions (mm)	210x150x35 (WxHxD)
Protection	IP21
Operating voltage	From 9V to 14V DC
Operating temperature	From -20°C to 60°C
Connector	2x 8pin, 1x ethernet
Display	TFT - capacitive touch
Tamper	Accelerometer
Display resolution	1024 x 600
Humidity	10-80%, non condensing
Memory	30000 cards or codes 100000 events
Inputs	Door status Push button
Outputs	Transistor output for el. strike 0.5A
Clock	Real time clock, battery backup (max. ten hours)
Communication	RS485 Ethernet
Keypad	Configurable buttons Selectable colors

*if Regis T is in Spider mode, the same data applies

Power supply

The controller need’s external power supply to operate. The Spider W40 power supply is sufficient to power two controllers and two 12V electric strikes or two 12V magnetic locks (0.5A). If you will use it as a standalone controller and low consumption electric strike (0.25A) you can use power supply Spider W5.

Voltage drops and cable signal interferences

When you connect the controller, use cable with a diameter of at least 0.22mm². If the cable length exceeds 25m, use one twisted pair of UTP cables for the positive (+) pole and one for the negative (-) pole. The cable length between power supply and the controller should not exceed 50m.

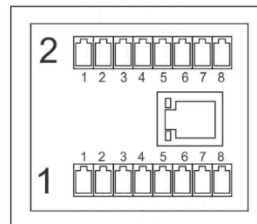
Take into consideration that a 0.22mm² cable has a resistance of approximately 9 ohm per 100m. The power supply at the end of cable should be a minimum of 9V. If you are using el. strike, it is highly recommended that the voltage drop is calculated. At greater distances, a thicker cable of 0.5mm² or more should be used wherever possible.

If the load is, for example, 0.5A (with el. strike) then, on the 0.22mm² cable voltage drop will be 4.5V at 100m. For the device with 60mA consumption, the voltage drop is 0.5V.

Reading distance depends on where the controller is installed. The presence of metal or interferences can significantly reduce the reading distance. **DO NOT** install the controller directly on metal surfaces and/or cover it with a metal cover.

It is **not recommended** to install controllers closer than **30cm** from each other in any direction. Otherwise, it may result in inaccurate readings or, indeed, in the controller **not reading at all**.

For the Regis T-3-B to comply with EMC directives (CE), you have to put ferrite core on the cable as close to the controller as possible, making two turns!



CONNECTOR DESCRIPTION

Connectors are marked on the housing with 1 in 2. First contact on both connectors starts on the marked side (1 and 2)

CONNECTOR 1 – connection of power supply, el. strike...

Contact	Description	Specification
1	9-14V DC	Power supply
2	GND	Ground
3	El. strike output	Max. 0,5A Active = GND
4	Alarm output	Max. 0,5A Active = GND
5	Door status switch input	Active = GND
6	Push button input	Active = GND
7	CA	RS485 A line
8	CB	RS485 B line

CONNECTOR 2 – connection of external reader

Contact	Description	Specification
1	9-14V DC	Power supply
2	GND	Ground
3	Data 0	Wiegand protocol
4	Data 1	Wiegand protocol
5	Buzzer output	Active = GND
6	LED output	Active = GND
7	XA – for protocol reader	RS485 XA line
8	XB – for protocol reader	RS485 XB line



Inputs, outputs and environment

Inputs:

Inputs are realized with opto-isolators. The input is active, when pulled to ground with an open collector transistor or mechanical switch, which is connecting the input pin of the controller to the Ground.

Outputs:

Output has a pre-installed protection diode for an inductive load. It is also protected from current overload. The best way is to use a 0.25A el. strike or a 0.5A el. magnet, which has to be connected to the same positive pole (+) as the controller. Connect the negative pole (-) to the door strike output (wire 3). When the output is active it is pulled to ground. This can be changed with function 5 – negate output (for el. magnet).

Environment:

Do not install the controller on/in a place, where it can come in contact with water. You must assure good cable joints, protected against moisture, otherwise corrosion may damage the controller. Damage in such cases is not covered by the warranty.

Regis T-1-B reading range:

The controller has a program algorithm that, at power start, sets parameters based on the installation environment, so as to ensure an optimal reading range. **DO NOT** install the controller directly on metal surfaces and/or cover it with a metal cover; it may stop working/reading. If you plan to test the controller and move it onto different surfaces, then you have to reset it (power off/on) on each surface.

Regis T-1-B reading field:

The controller has a reading card field active over 1/3 of the controller.

If the controller is in vertical position the reading field is on the bottom side of the controller.

If the controller is in horizontal position the reading field is on the right side of the controller.

ACCESS OR TIME AND ATTENDANCE CONTROLLER

Access controller

As an access controller, it is intended for controlling entries, exits and passes of users in the system and controlling sliding doors, ramp, el. strike, turning alarm on/off... It needs to be set with V7 or CODEKS software.

Time and attendance controller

As a time and attendance controller, it is intended to register the employee's arrivals and exits from work, lunch break, private and business exits, sick leave... It needs to be set with V7 or CODEKS software. In software you need to choose option "Time and attendance" for controller and reader. Set the software according to your requirements (time tables, users...) and send the tables. The keypad will serve for choosing different time intervals (private, business...).

The controller switches to access or time and attendance controller when tables are sent by the software or when it is set to mode 4 with function 9. Change the controller's address from 255 to any number between 1 and 254. If you have more controllers on the communication line, don't duplicate addresses. Add them one by one on the communication line, because every controller has address 255 by default.

Communication

Ethernet:

Connect the controller to the computer through your LAN via Ethernet connector. Use at least UTP CAT 5e cable. Adjust network settings of the controller using the Codeks Device Manager software so that it will function properly in your network. Please consult Codeks Device Manager manual.

S - Spider mode

In the Spider mode the controller can be used as a communication converter, from which you can continue RS485 communication line to the other controllers. When the controller is reset to the factory settings (brainwash), the controller address is set to 254.

RS485:

Connect the controller to the computer, with one of the power supplies, with communication converter, from the Spider family: Spider W5-USB, Spider W5-NET, Spider W40+NET.

The RS485 communication bus is used between the controllers and Jantar software. Up to 128 controllers can be lined up into one communication line. The maximum length of the communication line is 1000 cable meters. It is recommended that you use an FTP or S-FTP cable. Only a serial connection of controllers in a single communication line is allowed. **Star (parallel) connection is not allowed.**

All shields of S-FTP cables must be wired together and at **one point** connected to the earth. Individual connections to the earth are not allowed. Do not connect the shield of the cable to the ground of the controller.

Reset to the factory settings (brainwash):

When the controller is reset to the factory settings (brainwash), the controller address is set to 254.

ORDERING CODES

REGIS [box]-[card]-[software]

Box: **T**

Card: **1** – reading frequency 125kHz (cards)

3 – reading frequency 13.56MHz (cards)

Model: **B** – Black line

Code	Description
REGIS T-1-B	Standalone or access controller in T box, Frequency 125kHz, for CODEKS software, Integrated Ethernet
REGIS T-3-B	Standalone or access controller in T box, Frequency 13.56MHz, for CODEKS software, Integrated Ethernet

OTHER

Warranty only applies when the controller Regis is used with power supply or/and communication converter from the Spider family.

Please read through our warranty and disclaimer statements.

Connection scheme and additional support for the use of this product can be found on:

<http://www.jantar.si/forum/en>

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