AGRG® EYWA® Button T
No-Touch Button

Installation and operation manual

Contents

Thank you for purchasing AGRG® EYWA® device. We are making continuous efforts to produce the highest quality products and we hope that you will enjoy our devices. We strive to ensure that AGRG® EYWA® products will serve you for many years, so please read this manual carefully before installing and operating.

With gratitude and appreciation,

Yours,
AGRG

1. About the Manual

> ⚠️ **Additional accessories and functions may not be available at the time of the document release. Their appearance will be announced on the official websites of the manufacturer.**

1.1. The Term of the Manual

This document is valid until a new version is published in the appropriate section on https://agrg.design.

1.2. Task Force

The descriptions are intended for qualified specialists trained by the manufacturer. Descriptions do not replace training of the product handling.

Qualified specialists are personnel who have received appropriate technical training and have experience in setting up equipment. The specialist should use his knowledge and experience to detect the risks that may arise during these actions, as well as to minimize their impact on themselves and others. During the technical work the specialist is obliged to provide conditions specified by the manufacturer and to comply with applicable norms and standards.

This documentation is also used to provide information to persons who planning, designing and implementing the project.

1.3. Content and Purpose of the Document

The content of the document is limited to the description of assembly, installation, commissioning and basic usage of the product.

1.4. Additional Documents

The device works with any Access Control Systems (ACS). Nevertheless, it is recommended to review the documentation for the following components of your system:

- System software
- ACS Controller
- Administration Manual System
- Guidance on executive equipment (e.g., door locks, turnstiles, power supplies, etc.)

1.5. Warnings

Warnings containing information/instructions and prohibitions to prevent injury or damage are specially marked.

Please pay attention to the warnings! They are developed to avoid accidents, injuries and damage.

1.5.1. Danger Classes

Warnings fall into the following categories:

	WARNING	Low level of risk. Indicates a potentially dangerous situation that may lead to minor physical injuries.
	NOTE	Important information on the correct usage of the product. Non-compliance with these instructions may result in product defects or damage.

1.5.2. Symbols

	GENERAL DANGER	

1.6. Notes

	TIPS AND USEFUL INFORMATION	Such information helps to maximize the product usage and its functions.

2. Basic Safety Instructions

The product is manufactured according to modern standards and safety regulations. The product design meets the requirements of fire and electrical safety, including in the emergency mode according to GOST 12.2.007.0-75 and GOST 12.1.004-91(Russian Standards). However, during its usage, dangerous situations can arise for people and property.

> **Please read and observe the following safety precautions before using the product.**

2.1. Target Purpose

This product is intended only for the purposes given and described in the "Product Description" section. Any other use is considered as improper use. The manufacturer is not liable for any damage or injury caused by improper use. The user/operator of the object is the only person bearing the risks of misuse.

2.2. Assembly and Installation

Check the device for visible damage after transportation or improper storage. Do not switch on the device if it is damaged!

Assembly and installation of a product can only be performed by qualified specialists (see 1.2 Task Force). All requirements of the mentioned test standards must be observed when installing/integrating a product into the final equipment.

The product should be installed only in places that comply with the environmental and technical conditions specified by the manufacturer.

The manufacturer is not be liable for damage caused by improper handling or installation.

2.3. Service and Maintenance

Transformation, modification, repair and maintenance of the product can only be performed by qualified specialists (see 1.2 Task Force). The manufacturer is released from any liability in case any changes and modifications carried out by the other persons.

2.4. Accessories and Spare Parts

Accessories and spare parts shall meet the specifications of the manufacturer. The product warranty remains only if original accessories and spare parts manufactured by AGRG are used.

2.5. Environment Protection

Recycling of household waste device is prohibited. Used devices contain valuable materials that must be recycled. End-of-life devices should be disposed of properly.

3. Product Description

3.1. Overview

No-Touch AGRG® EYWA® Button T (hereinafter — the button) is an electronic device designed for no-touch control of actuators (by touching), for example, electromagnetic and electromechanical locks, control signals as part of ACS, etc. It is equipped with Wi-Fi / Bluetooth Tuya module, has an optical tamper detection sensor and allows to control the door state (Open/Closed) using a limit switch (reed switch).

It is equipped with a wireless Wi-Fi/Bluetooth Tuya module, has an optical device for breaking the device body and allows to control the condition of the door (Open/Closed) by the connected end switch sensor (reed switch).

CONNECTING CABLE

MICRO BUTTON FOR TUYA SMART CONNECTION

OPTICAL TAMPER DETECTION SENSOR

SOUND EMITTER
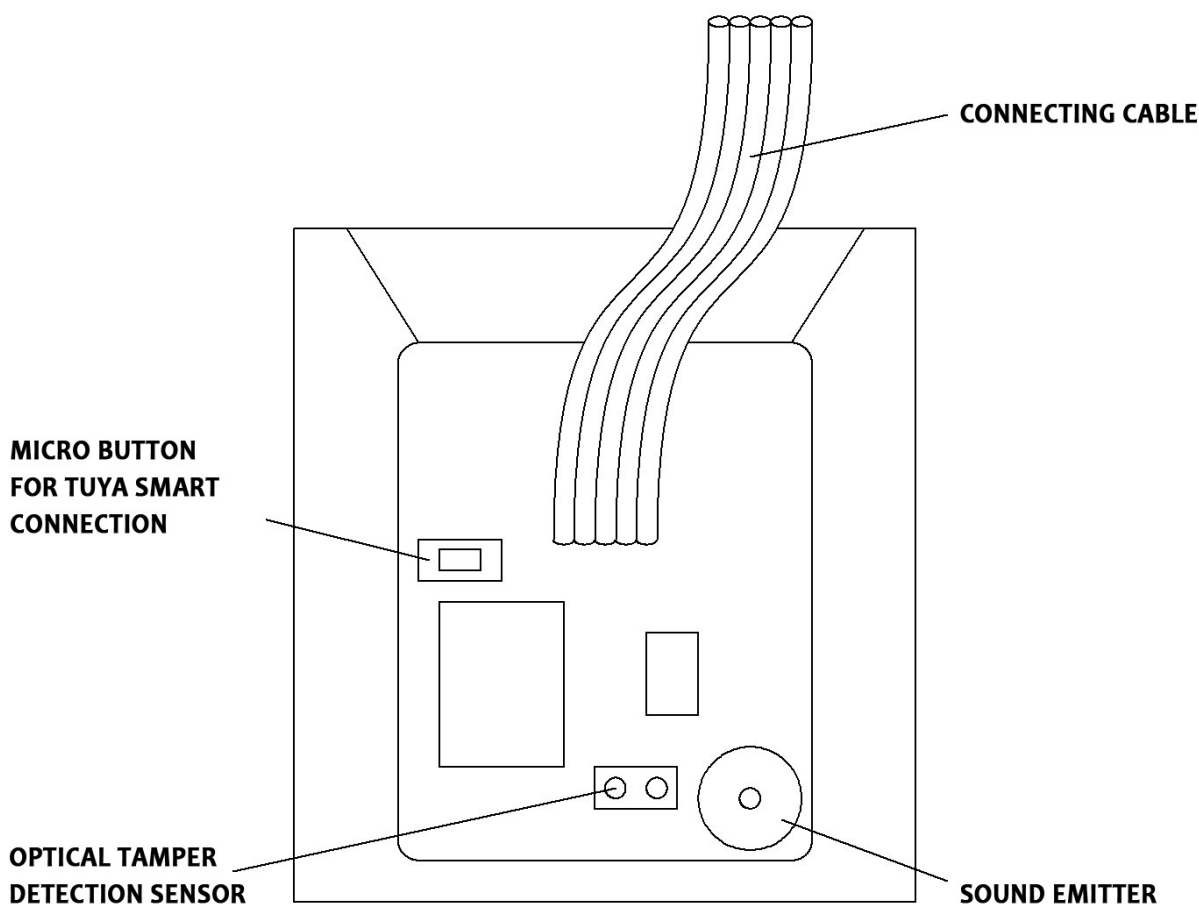
Button with Tuya module. Rear view

The principle of work is implemented by Atmel company's Q-Touch technology. This technology is based on self-capacitance measurement. Self-capacitance measurement involves charging a sensitive plate (electrode) of unknown capacitance to a known potential. The resulting charge is transferred to the measuring circuit of a special controller. The capacity of the electrode is measured using charge/transmission cycles.

3.2. Device Purpose

The button is intended to be used in IoT system (Smart Home and ect.) and Access Control System (ACS). It provides no-touch local or remote control of built-in relay with normally open contacts to which various actuators are connected such as bells, signal lamps, electromagnetic or electromechanical locks, etc.

The button has color LED indication of operating modes, as well as sound and light signaling of alarm events and relay actuation.

The button is designed for indoor installation and continuous 24/7 operation.

The maximum permissible current passing through the executive relay contacts is 0.15A!

3.3. Operation principle

During operation, the button continuously measures the electrical capacity of the electrode, which is arranged inside before the front surface. When a hand approaches or touches the front surface of the button, the measured electrical capacitance changes and an internal relay is triggered, controlling the actuators. The touch detection signal is sent to the button controller, which performs light signaling on RGB LEDs.

3.4. Technical Specifications

Light notification	RGB-LEDs, 16 million color combinations
Supply voltage	DC, 8...15V
Average current consumed	50 mA
Highest current consumed	300mA
Executive relay	1 switch contact block
Maximum permissible load on relay contacts	0,15 A
	–Standards 802.11 b / g / n20 –Channels 1-14, 2.4 GHz –WEP / WPA / WPA2 / WPA2 PSK (AES) security protocols
	Bluetooth 4.2 LE
Operating temperature	$0^0C...+40^0C$
Relative humidity	0-95%, excluding condensation

Protection class according to BS EN 60529	IP54
Body material	Stabilized solid block of fine wood
Thermal expansion coefficient	$(1,0\pm0,2)\cdot10^{-6}$ 1/K
Reader Hardness by Shore D, (HDS)	≥45
Axial shear endurance limit	≥ 5 MPa (≥ 50 kgs/cm^2)
Size	60mm x 65mm x 13mm
Connecting cable length	250mm

3.5. Delivery Set

1	AGRG® EYWA® Button T1	1 pc
2	Mounting plate	1 pc
3	Brief operation manual of the device	1 pc

4. Preparation for Work

4.1. Installation

The button is mounted on a flat vertical surface by means of a special mounting plate included in the delivery set.

The mounting plate is fixed to the surface by two screws or self-cutting screws (depending on the type of surface) with a maximum diameter of 3.5 mm (not included in the delivery set). For this purpose, it is necessary to apply a plate to the mounting surface and mark two holes for fixing the plate and one for laying the cable.
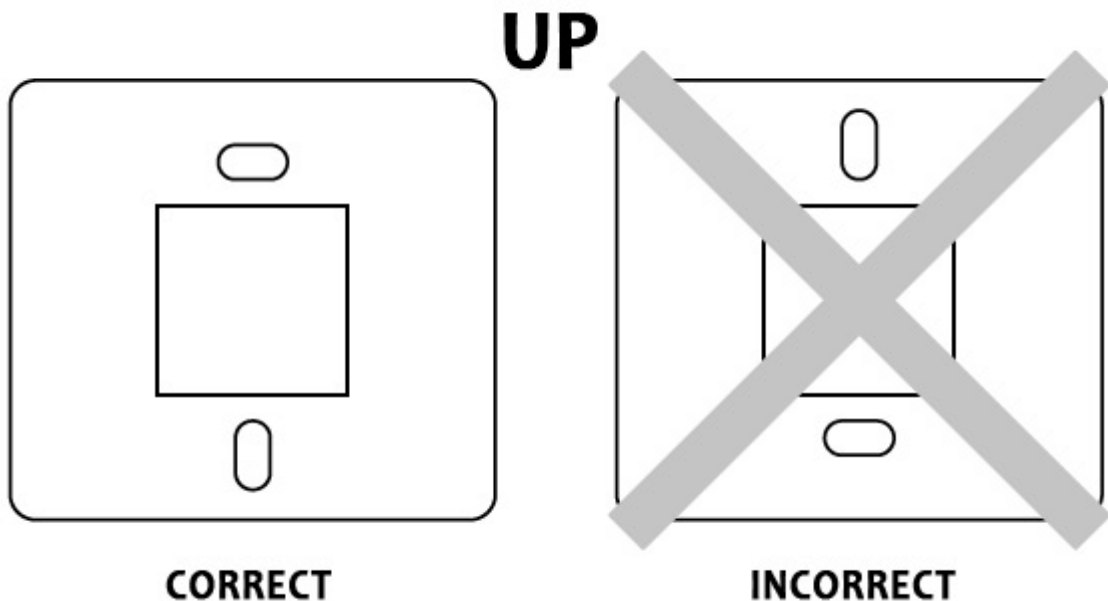
The button is fixed to the mounting plate using magnets built into the body. The backlight window of the mounting plate must be directed upwards when using the above installation method.

After the mounting plate installation and the cable connection, carefully bring the button to the plate, the connecting cable should not prevent free fixing of the button. When properly installed, the button should fit tightly to the surface with the whole body without distortions and plays.

Please note that incorrectly installed connecting cable may cause the micro-button pressure on the rear side and thus activation of Tuya Smart connection mode.

⚠	**WHEN ATTACHING TO THE SURFACE DEFORMATION OF THE PLATE IS NOT ACCEPTABLE!**

4.2. Mounting

To connect the button to the power source and actuators, it is recommended to use a multi-stranded cable with copper multi-threaded cables with a cross-section of 0.2 mm^2 to 0.75 mm^2 and a length of no more than 50 meters.

It is recommended to connect the button cables and the supplied cable by soldering with the subsequent insulation of the soldering area with the heat-shrinkable tube.
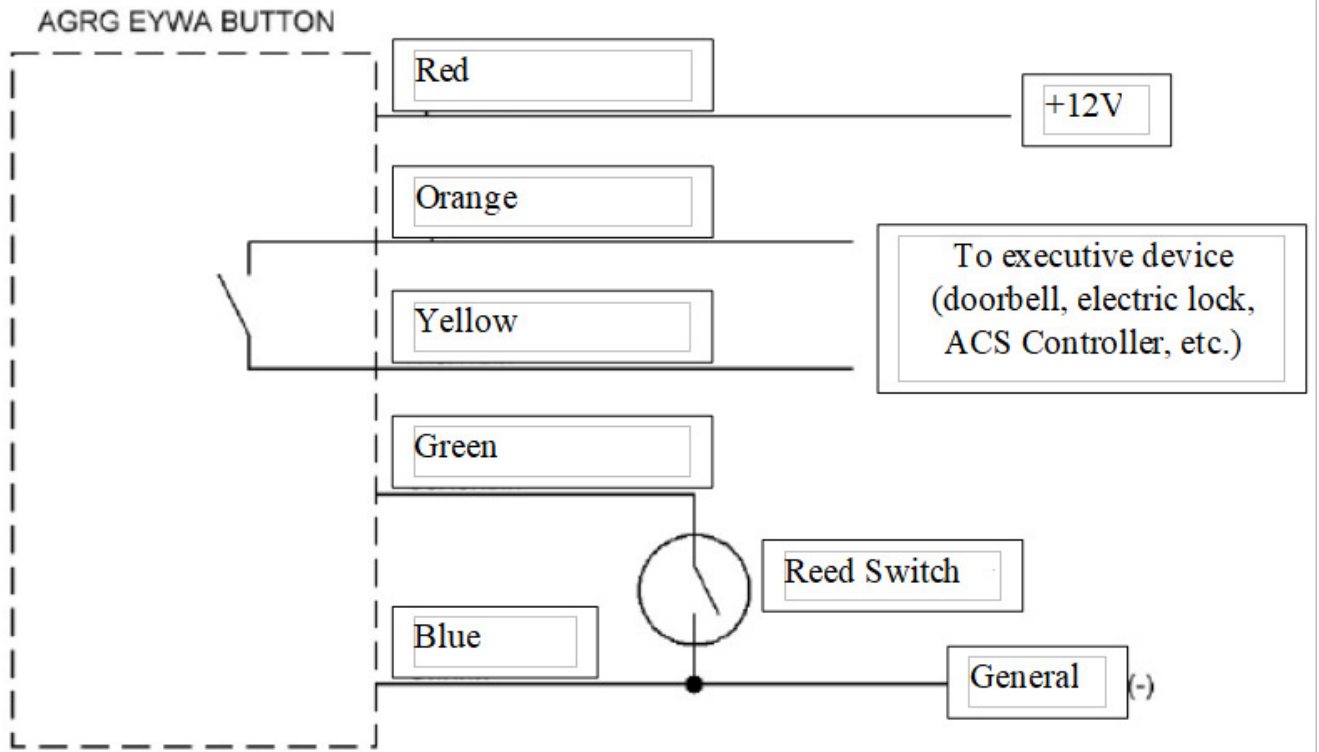
Button and Tuya module connection scheme

End sensor (reed switch) states of door opening

Door	Reed Switch
Close	Locked
Open	Open circuit

If the end sensor is absent (reed switch), the green wire should be connected to the blue wire.

> **!** **Power should be switched on only after the button is finally fixed on the bracket and the absence of different objects before the front surface, as the automatic calibration of the touch sensor takes place immediately after activation. Otherwise, false alarms may occur.**

4.3. Interface with Tuya Smart in AP Mode

Download Tuya Smart App from the App Store / Google Play. Launch the App and scan the QR code below with it. For it, click the "+" icon in the right corner, then "-" and follow the prompts in the application.

The settings for connection and use of EYWA Button T with an access control system (ACS) must be specified in the manual of the installed system.

To find a device on your phone, activate Bluetooth and Wi-Fi and only then launch the Tuya Smart app - the device is detected on its own and instantly!

> **!** **The backlight of EYWA BUTTON T is white when not connected to Tuya Smart.**

4.4. Interface with Tuya Smart in Automatic Mode

To add EYWA BUTTON T, press and hold the micro-button on the back of the device for 10 seconds until the backlight flashes blue and white. When EYWA BUTTON T is successfully added in TUYA Smart App, the backlight color of the device will change to blue.

5. Operating Procedure

The button is ready to work as the power is turned on, and the backlight color depends on the operating mode and state.

The backlight color	The operating mode/state
White	Normal (Standby) No connection to Tuya Smart Only local control possible
Blue	Normal (Standby) Connected to Tuya Smart Local and remote control possible
Red	The optical tamper detection sensor was activated (the button is removed from the mounting plate or is not sufficiently fixed) If connected to Tuya Smart, the sound signal is also activated
Yellow	End sensor (reed switch) of door state is opened
Blue flashing	Mode connection to Tuya Smart
Green flash and one short beep	Local contact actuation
Blue flash and two short beeps	Actuation by Tuya Smart

6. Maintenance

The button does not require maintenance. The button surface is cleaned with a dry soft cloth.

7. Packing / Return

Improper packaging of the device may result in additional costs due to transport damage. Please observe the following instructions when transporting/sending the reader. AGRG is not responsible for damage caused by improper packaging and transportation.

7.1. Packing the device in transit / Shipment

The original package is specially made for the device. It protects optimally against damage during transport.

Always use the original packaging when returning products! If this is not possible, ensure that the packaging prevents any damage to the device:

- Use a sturdy box with thick walls or a box for transportation. The shipping box shall be large enough to leave a free space of 3-5 cm between the device and the wall of the container.

- Wrap the device in a suitable wrap or place it in a package.

- Cover the device tightly with foam pads or, for example, air bags. The device shall not be able to move inside the package.

- Use an environmentally friendly, dust-free filler.

8. Recycling

Disposal of the device with household waste is not permitted.

The internal components of the device must be separated before disposal or reuse. Old and used devices contain valuable recyclable materials that must be disposed.

The body of the device is made of environmental materials and must be recycled properly. Recycle package in environmentally friendly manner.

Packaging materials are recyclable. Do not dispose of package with household waste; take it to a recycling center instead.

9. Warranty

9.1. AGRG provides a limited one-year warranty for the device, which is a voluntary manufacturer's warranty. It provides rights regardless of the rights established by Consumer Protection Act, including, but not limited to, the rights regarding non-compliant products.

> **FULL TERMS OF LIMITED ANNUAL WARRANTY ARE SPECIFIED ON AGRG EYWA HTTPS://AGRG.DESIGN/EN/PARTNERS/WARRANTY IN SECTION «LEGAL INFORMATION».**

All AGRG® EYWA® devices have a unique digital code by which one could define a warranty period. The warranty check, for users anywhere in the world at any time, excludes the risk of loss, forgetting, non-completing or falsifying of physical warranty cards.

9.3. The warranty check is available on the Internet at https://readers.agrg.ru/en/partners/warranty. To check, you must enter the unique digital code of the device in a special field and click the "Validate" button. The verification process is carried out using Waves blockchain technology, which confirms the authenticity of the warranty certificate and excludes the possibility of falsification. All warranty information is placed on the Waves blockchain and is not stored anywhere on the servers of AGRG.

9.4. AGRG does not collect customer data. The warranty is not tied to the name or any other data of the owner (mail, company, address, etc.).

9.5. AGRG disclaims responsibility for possible harm directly or indirectly caused by the products of AGRG to people, pets, property, if this happened as a result of non-observance of the rules of operation, installation of the device, intentional or careless actions of the consumer or third parties.

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