

Configuring EYE sensors



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Configuring EYE sensors

Devices work constantly and are ready to perform out of the box. Default basic Sensor settings are set to:

- Transmitting at 2 dBm power;
- Data advertising at 1 second intervals;
- Eddystone and Sensors protocol.

If you would like to change these settings you will need to download and install EYE APP - Teltonika application to change sensor settings.



*iOS doesn't show devices with iBeacon protocol

EYE App Overview

With the application you will be able to scan for visible Teltonika EYE devices, check their statuses or connect for configuration or firmware update.



Devices in view

In this window you will see all visible devices. You have options to see devices in Short list  or in default list. When looking at devices in default list you will be able to open Detailed view  of devices and check transmitted data statuses. Additionally if you are looking for specific devices you will be able to use Search  function to filter search options. When in this window select a device of your choice to connect and after passing pin code (default pin code is 123456) you will go to device overview window.

Overview window

In overview window you can see device details, check firmware version and update if available, go to device configuration settings. If you select to Configure device new window will open with Basic and Advanced settings.

Configure window

In this window you can check and change device configuration settings. In main tab Basic Settings you can change main settings. Change Device name, Power signal strength, Advertising interval and Packet transmission type*. For more settings go to Advanced settings tab to enable various events.

Advanced configuration window

Advanced configuration: Beacon Settings



In Advanced settings tab you can configure EYE beacon sensor parameters: Beacon information (iBeacon ID*, Eddystone ID). UUID/MINOR/MAJOR parameter can be changed for iBeacon ID*. Namespace ID/Instance ID can be changed for Eddystone ID. If you scroll down you will be able to adjust Sensor reading interval and event settings of the EYE Sensor **Note:** iOS doesn't show devices with iBeacon protocol

Advanced configuration: Magnetic field event



Magnetic field event - adjust if the device generates events based on detection or exit (loss) of the magnet.



Maximum event duration - how long will one event be advertised

Advanced configuration: Humidity event



Humidity event - adjust if the device generates events based on entrance or exit to selected humidity range



Event advertising settings - advertising period after event detection

Advanced configuration: Temperature event



Temperature event - adjust if the device generates events based on entrance or exit to selected temperature range



Sensor reading interval - how often values are updated by the device

Advanced configuration: Movement event



Movement event - adjust movement/stop detection and timeouts it takes to register movement / stopping

Configuring device with EYE sensors

Step 1: Check EYE App Settings:

1. Make sure that name of the sensor is default length (10 symbols)
2. Note what **Packet settings** you have set

Step 2: Configure device using Teltonika configurator:

1. In **System settings tab** Enable Codec8 Extended;
2. In **GPRS settings tab** Configure GPRS Settings and Server Settings
3. In **Bluetooth® settings tab** Enable Bluetooth®, set this setting as either "Enable (hidden)" or "Enable (visible)", otherwise Bluetooth® will be disabled;
4. In **Bluetooth® 4.0 tab** settings:
 1. set Non Stop Scan to "Disable", configure "Update Frequency" and "Scan duration" as 30 seconds. These settings will bring the best results for BLE scanning with our device;
 2. In **Bluetooth® 4.0 tab** settings Advanced Mode Settings Load EYE Sensor preset

according to packet settings in EYE app(if you do not have preset you can download them from below table)

- 3. Configure MAC address of the sensor
- 5. To receive data to server enable corresponding IO elements in **I/O settings tab**

EYE sensor presets

Using premade EYE sensor presets

The configurator can include premade presets.

BLE connectionless functionalities

1st Sensor

Connection #1

Settings

MAC

Type	Data Offset	Data Size	Action	IO	Match	Endianness	Multiplier	Offset
	0	0	Match	None		Little Endian	1	0
	0	0	Match	None		Little Endian	1	0
	0	0	Match	None		Little Endian	1	0
	0	0	Match	None		Little Endian	1	0
	0	0	Match	None		Little Endian	1	0

NOTE! In order to have sensor presets included in the configurator, every preset has to be recorded in the configuration, saved to a file and placed to Documents folder of your computer.

Packet settings

☐ iBeacon

☐ Eddystone

☒ EYE Sensors

☐ iBeacon and EYE Sensors

☐ Eddystone and EYE Sensors

EYE Sensor Packet Setting:

Preset you should use:

TAT100

Preset download

link:

TMT250,

GH5200,

TFT100,

TST100

Preset download

link:

Packet settings

☐ iBeacon

☐ Eddystone

☐ EYE Sensors

☒ iBeacon and EYE Sensors

☐ Eddystone and EYE Sensors

EYE iBeacon

Packet settings

☐ iBeacon

☐ Eddystone

☐ EYE Sensors

☐ iBeacon and EYE Sensors

☒ Eddystone and EYE Sensors

EYE Eddystone

Presets for TAT100 device

For the TAT100 there is only one preset for all Sensors modes (Sensors, iBeacon & Sensors and Eddystone & Sensors modes)

Type	Data Offset	Data Size	Action	IO	Match	Endianess	Multiplier	Offset
FF	0	2	Match	None	9A08	Big Endian	1	0
FF	4	2	Save	Temperature		Little Endian	1	0
FF	6	1	Save	Humidity		Little Endian	10	0
FF	7	2	Save	Custom1		Big Endian	1	0
FF	12	1	Save	Battery		Little Endian	1	0

Presets for TMT250, GH5200, TFT100 and TST100 devices

EYE SENSOR (Sensors)

EYE sensor (Sensors mode) configuration

Type	Data Offset	Data Size	Action	IO	Match	Endianess	Multiplier	Offset
FE	20	2	Save	Temperature		Little Endian	1	0
FE	22	1	Save	Humidity		Little Endian	10	0
FE	23	2	Save	Custom1		Big Endian	1	0
FE	28	1	Save	Battery		Little Endian	1	0

EYE SENSOR (iBeacon & Sensors)

EYE sensor (iBeacon & Sensors mode) configuration

Type	Data Offset	Data Size	Action	IO	Match	Endianess	Multiplier	Offset
09	15	2	Save	Temperature		Little Endian	1	0
09	17	1	Save	Humidity		Little Endian	10	0
09	18	2	Save	Custom1		Big Endian	1	0
09	23	1	Save	Battery		Little Endian	1	0

EYE SENSOR (Eddystone & EYE Sensors)

EYE sensor (Eddystone & EYE sensors mode) configuration

Type	Data Offset	Data Size	Action	IO	Match	Endianess	Multiplier	Offset
FF	4	2	Save	Temperature		Little Endian	1	0
FF	6	1	Save	Humidity		Little Endian	10	0
FF	7	2	Save	Custom1		Big Endian	1	0
FF	12	1	Save	Battery		Little Endian	1	0

