Beacon BLE

USER MANUAL

Translation of the original instructions

Version: **1.0**

Date: **18/04/2023**

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VERSION	DATE	CHANGES
1.0	18/04/2023	-

Any information inside this manual can be changed without advice.

This handbook can be download freely from the website:
www.eelectron.com

Exclusion of liability:
Despite checking that the contents of this document match the hardware and software, deviations cannot be completely excluded. We therefore cannot accept any liability for this.
Any necessary corrections will be incorporated into newer versions of this manual.

Symbol for relevant information

Symbol for warning

1. Beacon BLE

BLE technology allows the sending of messages to mobile devices. These devices must have an app that allows them to receive information from BLE beacons. The data format is compatible with iBeacon® and Eddystone®.
In ETS it is possible to choose the protocol from the menu of the beacon parameter.

Communication objects involved:

"<Beacon> Name"	14 Bytes	CW
"<Beacon> iBeacon UUID"	1 Byte	CW
"<Beacon> iBeacon Major"	2 Bytes	CW
"<Beacon> iBeacon Minor"	2 Bytes	CW
"<Beacon> Eddystone Namespace ID"	1 Byte	CW
"<Beacon> Eddystone Instance ID"	1 Byte	CW
"<Beacon> Ack"	1 Bit	CRT

When an object is successfully updated, the device sends a telegram=1 via the "<Beacon> Ack" object. In case of failure the sent telegram will be 0.

The UUID, Namespace ID and Instance ID fields can be updated via the relative 1 Byte communication object by sending a sequence made up of a pre-established number of characters (respectively 32, 20, 12). The writing time interval between one character and the next must be less than three seconds.

KNX PARAMETER	SETTINGS
Beacon	none iBeacon Eddystone iBeacon+ Eddystone
With this parameter it's possible to choose wether to activate the beacon function, choosing the protocol.	

iBeacon

KNX PARAMETER	SETTINGS
Name	
It is the name that identifies the beacon.	
Interval [ms]	100...10000
It defines the time interval between two beacon transmissions.	
RSSI@1m [*-1 dBm]	1...255
It indicates the received signal strenght indicator at 1 meter.	
Tx power	-40...+4 dBm
It refers to the strength of the signal that is exactly 1 meter from the device. TX is used to determine proximity of devices from the beacon.	
Company ID	004C
It defines the manufacturer ID for device matching.	
UUID	
It is a beacon's general information. For example, the name of the person/business that the beacon belongs to.	
Major	0...65535
It defines the beacon's spatial information.	
Minor	0...65535
It defines a more detailed or minute information.	

Eddystone

KNX PARAMETER	SETTINGS
Name	
it's the name that identifies the beacon.	
Interval [ms]	100...10000
It defines the time interval between two beacon transmissions.	
RSSI@1m [*-1 dBm]	1...255
It indicates the received signal strenght indicator at 1 meter.	
Tx power	-40...+4 dBm
It refers to the strength of the signal that is exactly 1 meter from the device. TX is used to determine proximity of devices from the beacon.	
Namespace ID	
It is a beacon's general information. For example, the name of the person/business that the beacon belongs to.	
Instance ID	
It defines the serial ID number which is then used by the corresponding app in the user's device to return results.	

iBeacon + Eddystone

In this configuration you'll have the parameters of both protocols.