

## **en/RangeExtender**

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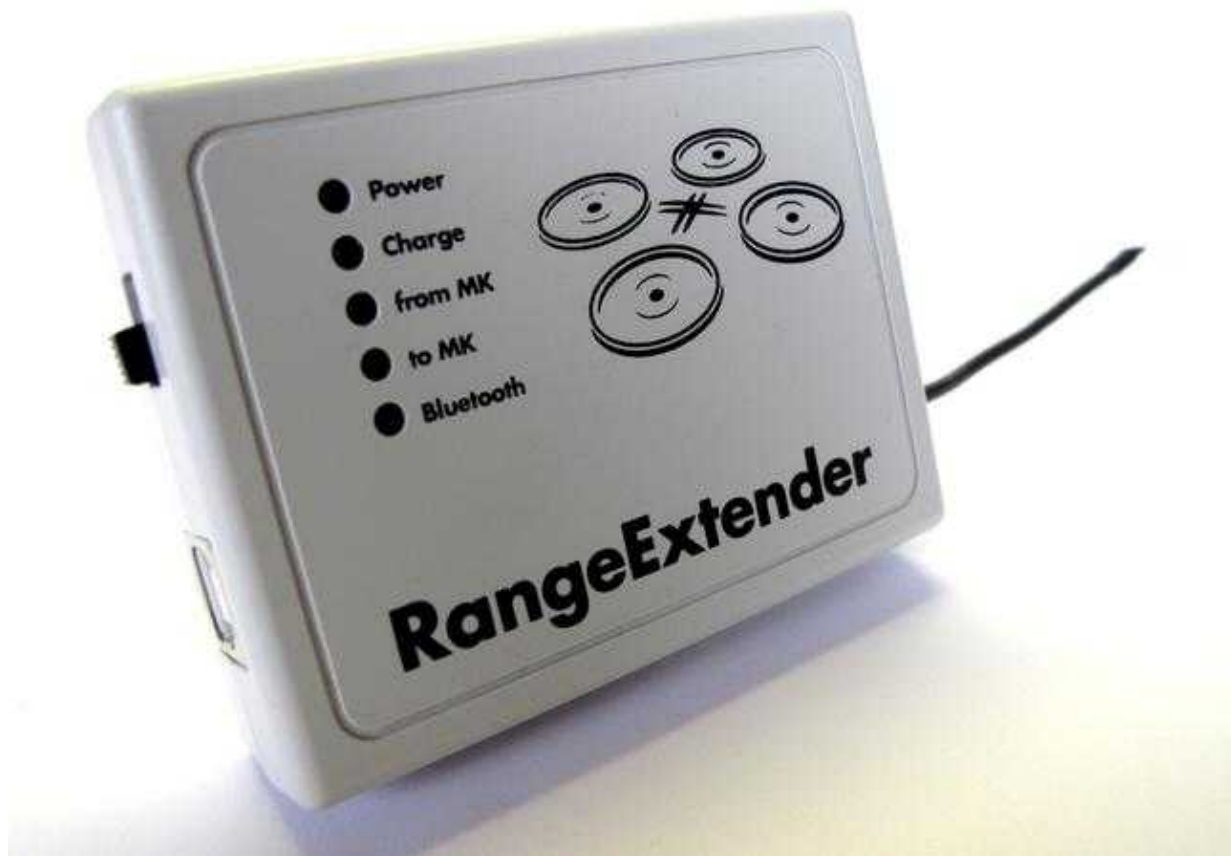
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# 1 RangeExtender

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With the RangeExtender, a wireless connection can be established to the MikroKopter over a large range (>1000mtr).

The connection will be relayed via USB or Bluetooth on the RangeExtender to the more powerful Wi.232 module. In that way a connection will be established to the Wi.232 module on the MikroKopter. The RangeExtender will be supplied with power via an integrated battery.

## 2 The connection

The RangeExtender can be used i.e. on a:

- Tablet
- Smartphone
- Computer
- etc.

(appropriate software required, i.e. MK-TabletTool ([Link](#)), [KopterTool](#), Dubwise etc.).

In this way a transfer and display telemetry data from the Kopter is possible. You are also able to send [WayPoints](#) to the Kopter.

### 2.1 Connection via Bluetooth or USB



The RangeExtender can be easily connected with a Tablet, Smartphone etc. . Here you proceed as follows:

1. Switch ON the RangeExtender with the switch on the side - the green LED *Power* flashes.
2. At the used device switch to the settings / Bluetooth settings and start the Bluetooth Scan.  
(See instruction of the used device)
3. After a short time the RangeExtender should be found with its identification.

◆ Identification = ***RangeExtender***

4. Now the RangeExtender can be assigned to the device (Pairing).
5. Here now the four-digit Bluetooth-Key (PIN) of the RangeExtender need to be entered.

◆ Bluetooth-Key (PIN) = **0000**

6. After a successful *Pairing* the RangeExtender can be used with an appropriate program.
7. Has been established a connection via Bluetooth (i.e. tablet computer) with the RE, the blue LED *Bluetooth* will light at the RE.

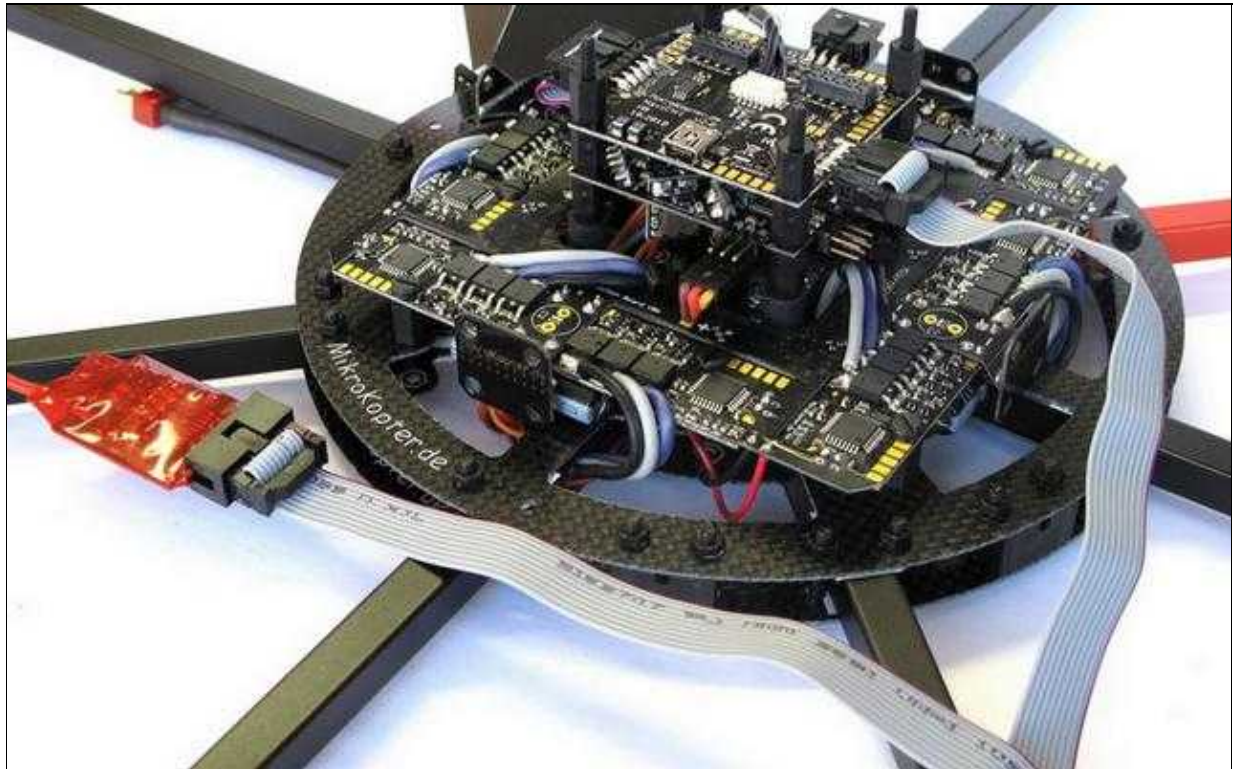
### 3 Connection at the MikroKopter

With the delivery of the RangeExtender comes also a Wi.232 module for the MikroKopter.

This Wi.232-receiver will be connected with the ribbon cable to the connector **Debug** on the NaviCtrl .

> If only a FlightCtrl is used on the Kopter you need to connect the Wi.232 receiver to the 10-pin header at the [FlightCtrl](#) .

Throughout the missing GPS system the transfer of the telemetry data is not possible.



(To enlarge -> click on the image)

## 4 Load RangeExtender

The RangeExtender uses a 3,6V/800mAh NiMH battery. With this battery the RangeExtender can work without additional power over a longer period of time. If the battery has used up its power, a warning signal will sound and the battery needs to be charged.

To load the battery the RangeExtender can be connected either way with the USB cable to a PC, Laptop etc. or to a suitable power supply with a 5V= Output.

After connecting a USB cable to the RE and to an appropriate device the red LED *Charge* will light. If the battery is completely charged the red LED will go OFF and you can disconnect the USB connection.

**INFO:** The battery will be also charged if the RangeExtender is switched OFF.



## 5 Technical data / delivery package

### Delivery package:

- RangeExtender
- Wi.232 Kopter
- USB cable
- Ribbon cable with 2x 10-pin pinheader

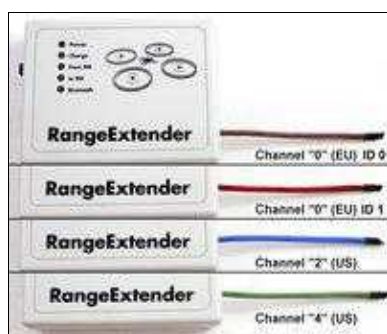
### Technical data:

- Weight RangeExtender = 110g
- Weight Wi.232 Modul Kopter = 9g
- Power supply RangeExtender = 3,6V/800mAh NiMH battery
- Connector = USB
- Loading = via USB (5V)
- Display for: Power, Charge, Rx/Tx, Bluetooth connection
- Battery life = 7-8 hours
- Bluetooth PIN = 0000
- Individual RE-ID = needed for the use of the MK-TabletTool

The RangeExtender can be ordered in four different versions:

- EU Version
  - ◆ Channel 0 (868,300MHz) ID 0 (Brown)
  - ◆ Channel 0 (868,300MHz) Id 1 (Red)
- US Version
  - ◆ Channel 2 (903,023MHz) (Blue)
  - ◆ channel 4 (905,279MHz) (Green)

The different colored antennas of the RangeExtenders shows you the channels:



(To enlarge -> click on the image)