

Tap-radio® motion/brightness sensor



TF-BHSB

Temperature at mounting location:

-20°C up to +50°C.

Storage temperature: -25°C up to +70°C.

Relative humidity:

annual average value <75%.

Wireless motion/brightness sensor pure white glossy for single mounting 84x84x27 mm or mounting into the E-Design switching system.

With solar cell and battery.

At factory settings, taught in light and dimming actuators turn off automatically 5 minutes after the last detected motion. Switching on the light by pushbutton. A jumper plugged in the 'active' position automatically activates motion-dependent switch-on. A potentiometer allows to adjust the brightness value where the sensor starts to send the motion telegrams.

The mounting base can be screwed onto a flat surface or glued to the wall or the ceiling using the enclosed adhesive foil.

We recommend stainless-steel countersunk 2.9x25 mm, DIN 7982 C, for screw connections. Both with rawl plugs 5x25 mm and with 55 mm switch boxes.

An adhesive foil as well as a set of 2 stainless-steel countersunk screws 2,9x25 mm and plugs 5x25 mm and are enclosed.

The power supply is an internal 3V CR2032 button cell and has a service life of several years.

The battery is backed by the two solar cells. This lengthens the service life of the battery and ensures sufficient brightness.

In as-delivered state the **TF mode** is active and the sensor sends data for semiautomatic motion detection. When

the 'active' jumper is plugged onto both pins, fully automatic motion detection is active.

Use the internal potentiometer to set the brightness threshold at which the sensor sends a 'Motion' telegram.

When motion is detected, the sensor sends a 'Motion' telegram every 60 seconds. When no more motion is detected, a 'No motion' telegram is sent after 2 minutes.

The sensor sends a status message cyclically every 17 minutes.

In TF mode the sensor can be taught-in in the following tap-radio actuators: TF61L, TF61D, TF-TA65L, TF-TA65D, TF-TA55L, TF-TA55D, TF100L and TF100D.

When the 'FBH' jumper is plugged onto both pins, the device switches over to **FBH mode**.

Then brightness values are also transmitted to the Eltako building wireless system.

When motion is detected, the sensor sends a 'Motion' telegram every 60 seconds.

When no more motion is detected, a 'No motion' telegram is sent after 2 minutes.

The sensor sends a status message cyclically about every 17 minutes.

In FBH mode the sensor can be taught-in in the following actuators: F4HK14, FDG14, FDG71, FHK14, FHK61, FLC61, FSG14, FSG71, FSR14, FSR61, FSR71, FTN14, FTN61, FUD14, FUD61, FUD71, FZK14, FZK61.

#### Startup and installation:

1. Carefully raise the front panel using a small screwdriver and remove the battery insulation.
2. If the sensor is bonded, please skip Point 3.
3. If the mounting plate is to be screwed on, remove the electronics including the front panel. Remove the electronics at centre left from the mounting plate using a small screwdriver. Remove the frame from the mounting plate. Unscrew the mounting plate and snap the frame back on. Then snap the electronics back onto the mounting plate.

4. After adjustment and teach-in, snap the front panel back on.

To change the battery, carefully raise the front panel.

**To teach in** an actuator set to teach-in mode or the GFVS, press the teach-in button.

TF mode data telegram to EEPROM:

A5-07-01

Data\_byte3 = -

Data\_byte2 = -

Data\_byte1 = 0xC8 = semi-automatic motion detection

0xFF = fully automatic motion detection

0x00 = no motion

Data\_byte0 = 0x08

TF mode teach-in telegram: 0x1C080D80

FBH mode data telegram to EEPROM:

A5-08-01

Data\_byte3 = voltage 0-5.1V (0-255)

Data\_byte2 = brightness 0-510 lux (0-255)

Data\_byte1 = -

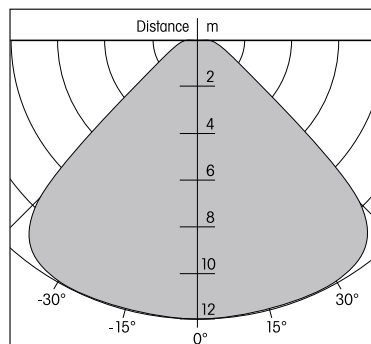
Data\_byte0 = 0x0D = motion

0x0F = no motion

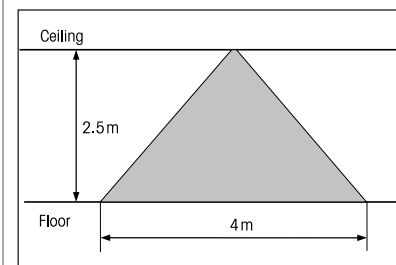
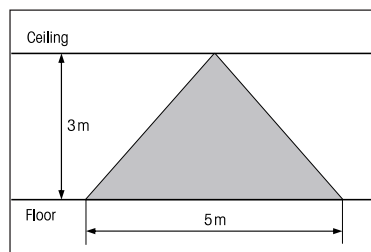
FBH mode teach-in telegram:

0x20080D85

#### Wall mounting



#### Ceiling mounting



**The crossed-out waste container indicates that batteries may not be disposed with other household or commercial waste.**



**Attention: Danger of explosion if battery is replaced improperly. Only replace it by an equivalent type!**

#### EnOcean wireless

Frequency 868,3 MHz

Transmit power max. 10 mW

**Hereby, Eltako GmbH declares that the radio equipment type TF-BHSB is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: [eltako.com](http://eltako.com)**

**Must be kept for later use!**

#### Eltako GmbH

D-70736 Fellbach

**Technical Support English:**

☎ Michael Thünte +49 176 13582514

✉ [thuente@eltako.de](mailto:thuente@eltako.de)

☎ Marc Peter +49 173 3180368

✉ [marc.peter@eltako.de](mailto:marc.peter@eltako.de)

[eltako.com](http://eltako.com)