

Bluetooth® 5.0 Real-time Keeper & Repeater Module

HTG01 & HTG02

Product Description

HTG01 & HTG02 are Bluetooth modules with a real-time chip built in that can keep real time running for up to 10 days during power loss, which is very convenient for Bluetooth system/network where there is constant need for power on/off. When a product group mesh network is created, the entire network takes HTG01 or HTG02 as the authoritative time. External Bluetooth antenna can be connected for a longer Bluetooth broadcast distance.



HTG01



HTG02

App Features

- Compatible with EnOcean BLE switches
- Grouping luminaires via mesh network
- Device firmware update over-the-air (OTA)
- Continuous development in progress...

Hardware Features

- With reinforced antenna (for HTG02 only)
- Bluetooth range extender
- RTC retains timekeeping for about 10 days during power loss
(For optimal performance, install the device facing down and at around 25°C. Prolonged exposure to direct outdoor sunlight may reduce RTC time to 2 days.)
- Short-circuit protection
- 5-year warranty

Smartphone app for both iOS & Android platform

Koolmesh Pro app for iPad

Web app/platform: www.iot.koolmesh.com

Technical Specifications

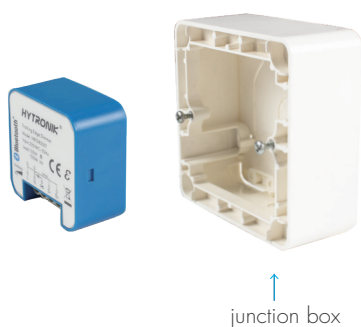
Bluetooth Transceiver	
Operation frequency	2.4 GHz - 2.483 GHz
Transmission power	4 dBm
Range (Typical indoor)	10~30m
Protocol	Bluetooth® 5.0 SIG Mesh

Safety & EMC	
EMC standard (EMC)	EN 55015, EN61547, EN 61000-3-2/3-3
Safety standard (LVD)	EN61347-1, EN61347-2-11
RED	EN 300328, EN 301489-1/-17

Input & Output Characteristics	
Operating voltage	120~277VAC 50/60Hz

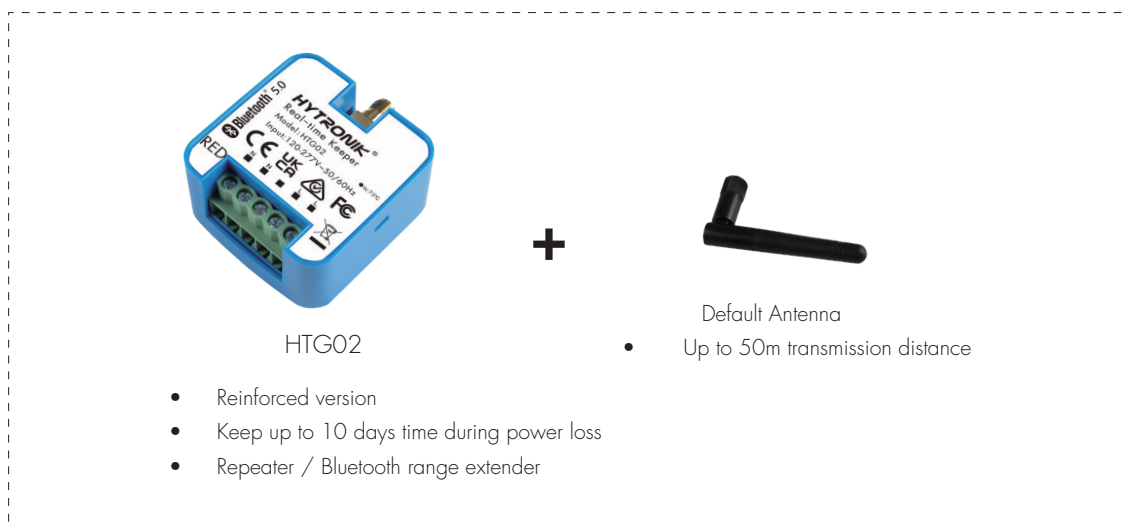
Environment	
Operation temperature	Ta: -20°C ~ +60°C
Storage temperature	-40°C ~ 70°C
Relative humidity	10 ~ 90%
IP rating	IP20
Insulation	Class II

Typical Switch Box Mounting (Only HTG01)



HTG01

- Standard version
- Keep up to 10 days time during power loss
- Repeater / Bluetooth range extender
- Up to 30m transmission distance



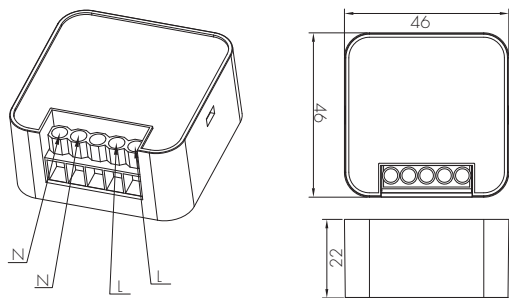
HTG02

- Reinforced version
- Keep up to 10 days time during power loss
- Repeater / Bluetooth range extender

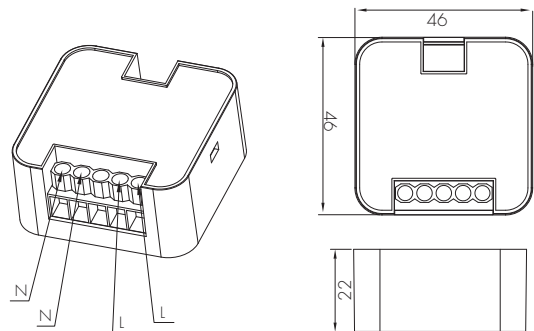
- Default Antenna
- Up to 50m transmission distance

Mechanical Structure & Dimensions

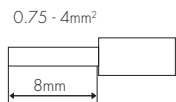
HTG01



HTG02



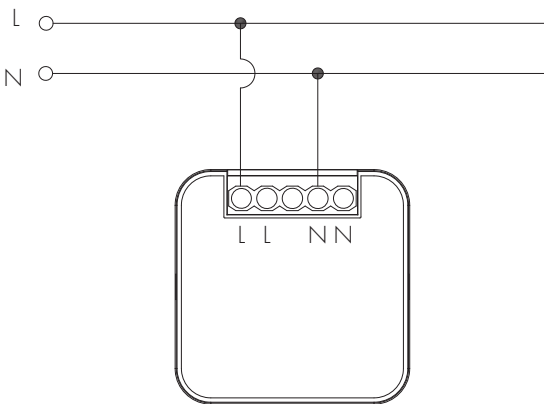
Wire Preparation



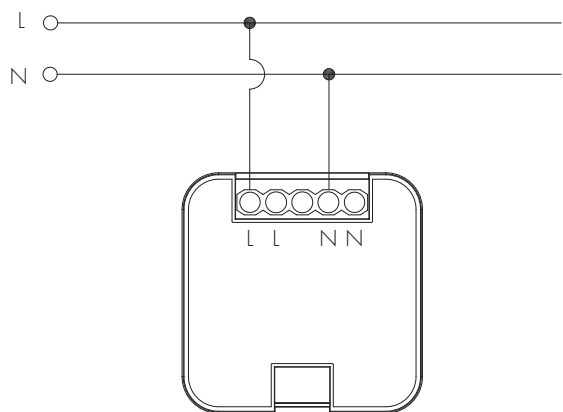
To make or release the wire from the terminal, use a screwdriver to push down the button.

Wiring Diagram

HTG01

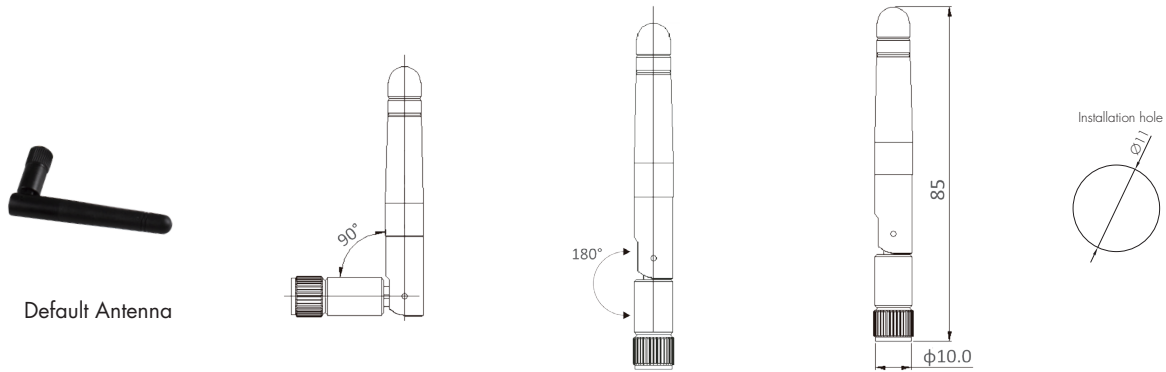


HTG02

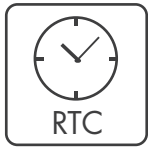


Default Reinforced Bluetooth antenna(for HTG02)

For some special Applications, customers may need a larger Bluetooth transmission for both smartphone to device and device to device. The reinforced Bluetooth antenna, with it being added to the HTG02, the transmission distance(smartphone to device) enlarges to 20m, the distance of device to device is around 50m.



Functions and Features



The Real-Time Clock (RTC) is a critical component in many of our BLE (Bluetooth Low Energy) products, particularly those designed to support circadian rhythm systems. The primary function of the RTC is to maintain accurate time and date information, even when the device is powered off or experiences a power failure. This is crucial for ensuring that the device can resume its correct operation and provide timely data or functionality once power is restored.

Additional Information / Documents

1. To learn more about detailed product features/functions, please kindly refer to
<https://hytronik.com/product/htg01>
2. Regarding precautions for Bluetooth product installation and operation, please kindly refer to
<https://hytronik.com/service/downloads> (Bluetooth Products Precautions for Product Installation and Operation)
3. Data sheet is subject to change without notice. Please always refer to the most recent release on
<https://hytronik.com/products/system-level-components>
4. Regarding Hytronik standard guarantee policy, please kindly refer to
<https://hytronik.com/service/downloads> (Guarantee Conditions document)