## Dimmers with  Bluetooth® 5.0 SIG Mesh

| HBTD8200S | HBTD8200T/HBTD8200T2 | HBTD8200V | HBTD8200D |
| --- | --- | --- | --- |
| Relay Control | Trailing Edge | 0/1-10V | DALI |

# HYTRONIK®

## Product Description

HBTD8200 series are designed to fit into a junction box or electrical box to make Push switch (retractive switch) to achieve on/off control, dimming control, colour tuning and even scene recall. Whether used for new build or retro-fit projects to add intelligent control to standard lighting fixtures, HBTD8200 series does it all. Simple device setup and commissioning can be done via **Koolmesh®** app.

On-off Version
Trailing Edge (150VA)

DALI / 0/1-10V  Version
Trailing Edge (2 x 100VA)

## App Features

- Floorplan feature to simplify project planning
- Grouping luminaires via mesh network
- Scenes
- Push switch configuration
- Schedule to run scenes based on time and date
- Astro timer (sunrise and sunset)
- Device firmware update over-the-air (OTA)
- Power-on status (memory against power loss)
- Offline commissioning
- Different permission levels via authority management
- Network sharing via QR code or keycode
- Remote control via gateway support HBGW01
- Interoperability with Hytronik Bluetooth product portfolio
- Compatible with EnOcean BLE switches
- Continuous development in progress…

  \* Certain scenes which require external photocell can

  be achieved by using together with Hytronik Bluetooth

  sensors, such as HBIR29, HCD038/BT + sensor head etc.

## Hardware Features

- HBTD8200S - ON/OFF relay switch:
  – 400VA (capacitive)
  – 800W (resistive)
- HBTD8200T - Trailing edge output: 150VA (capacitive)
- HBTD8200T2 - Trailing edge output: 2 x 100VA (capacitive)
- HBTD8200V - 0/1-10V output with relay control: 400VA (capacitive) and 800W (resistive)
- HBTD8200D - 100mA DALI broadcast output for up to 50 LED drivers
- Compact design
- 2 Push inputs for flexible manual control
- Zero crossing detection circuit to reduce in-rush current and prolong relay lifetime (HBTD8200S & HBTD8200V)
- Short-circuit protection
- Overload protection
- 5-year warranty

###  Bluetooth® Kinetic Switch

| HBKS01 | HBKS02 | HBKS03 | HBKS01D | HBKS02D |
| --- | --- | --- | --- | --- |

Fully support EnOcean self-powered switch module
PTM215B （HBES01/W & HBES01/B）

###  Bluetooth® 5.0 SIG mesh

HYTRONIK Koolmesh

iOS | Android
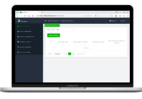
for iOS | for Android

Smartphone app for both iOS & Android platform

for iPad

Koolmesh Pro app for iPad

Web

for Web

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

Retractive switch      Bluetooth dimmer HBTD8200T      Downlights
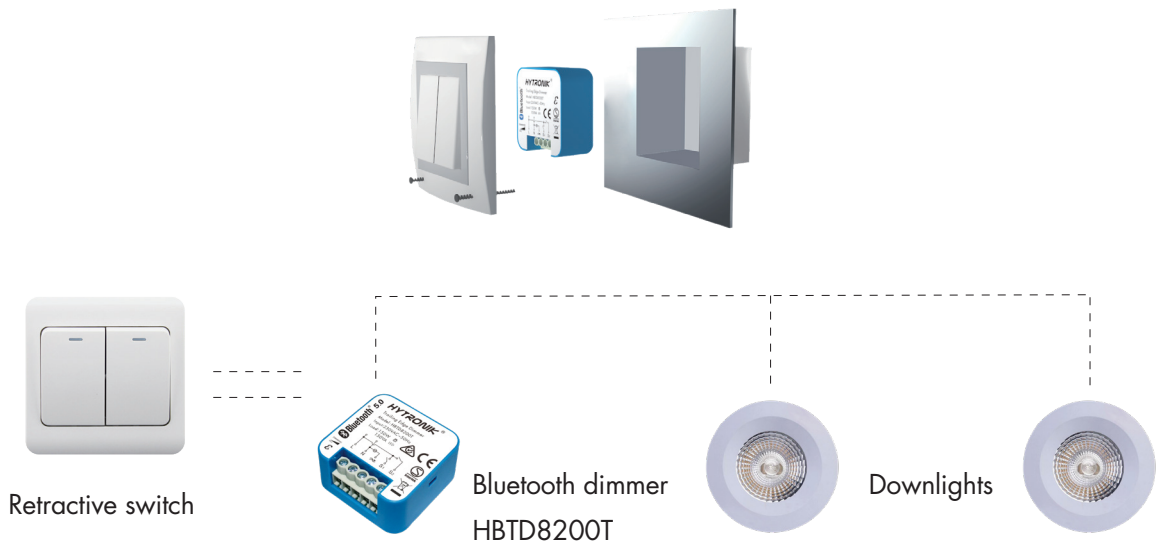
## Technical Specifications

| 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 |

| Environment | |
|---|---|
| Operation temperature | Ta: -20°C ~ +45°C |
| Case temperature (Max.) HBTD8200S HBTD8200T HBTD8200V HBTD8200D HBTD8200T2 | Tc: +75°C Tc: +80°C Tc: +75°C Tc: +75°C Tc: +75°C |
| Storage temperature | -20°C ~ 60°C |
| Relative humidity | 20 ~ 90% |
| IP rating | IP20 |
| Insulation | Class II |

| Input & Output Characteristics | |
|---|---|
| Operating voltage: HBTD8200S HBTD8200T HBTD8200V HBTD8200D HBTD8200T2 | 220~240VAC  50Hz 230VAC  50Hz 220~240VAC  50Hz 220~240VAC  50/60Hz 230VAC  50Hz |
| Stand-by power | <0.5W |
| Load ratings: HBTD8200V HBTD8200D HBTD8200T HBTD8200T2 HBTD8200S | 400VA(Capacitive), 800W(Resistive) 100mA, 16VDC (max. 50 devices) 150VA(Capacitive), 150W(Resistive) 2x100VA(Capacitive), 2x150W(Resistive) 400VA(Capacitive), 800W(Resistive) |

| Safety & EMC | |
|---|---|
| EMC standard (EMC) | EN55015, EN61547 EN62479, EN61000 |
| Safety standard (LVD) | IEC/EN 61058, AS/NZS 61058 |
| Radio Equipment (RED) | EN300 328, EN301489-1/-17, EN62479 |
| Certification | Semko, CB, CE , EMC, RED, RCM |

## Mechanical Structure & Dimensions

HBTD8200D - DALI Version
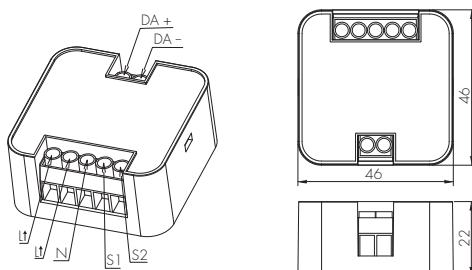


HBTD8200V - 0/1-10V] Version
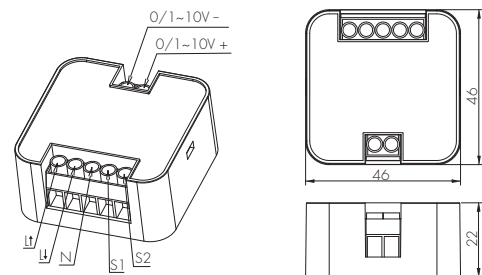
HBTD8200T - Trailing Edge Version (150VA)
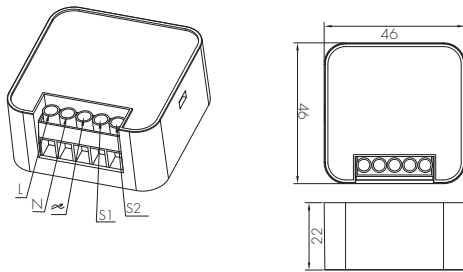


HBTD8200T2 - Trailing Edge Version (2 x 100VA)
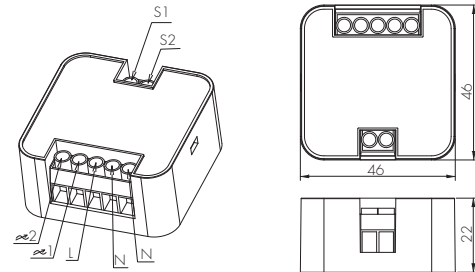


HBTD8200S - On/off Version



## Wire Preparation



0.75 - 4mm

8mm
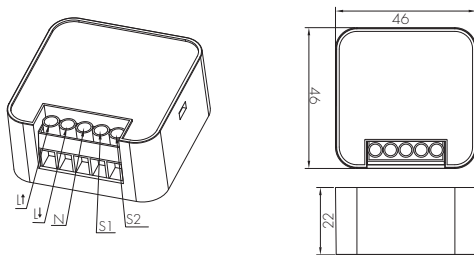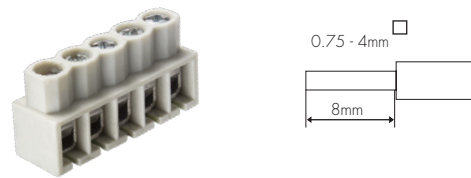
To make or release the wire from the terminal, use a screwdriver to push down the button.

1. 200 metres (total) max. for 1mm² CSA (Ta = 50℃)
2. 300 metres (total) max. for 1.5mm² CSA (Ta = 50℃)

## Wiring Diagram

DALI Version
HBTD8200D
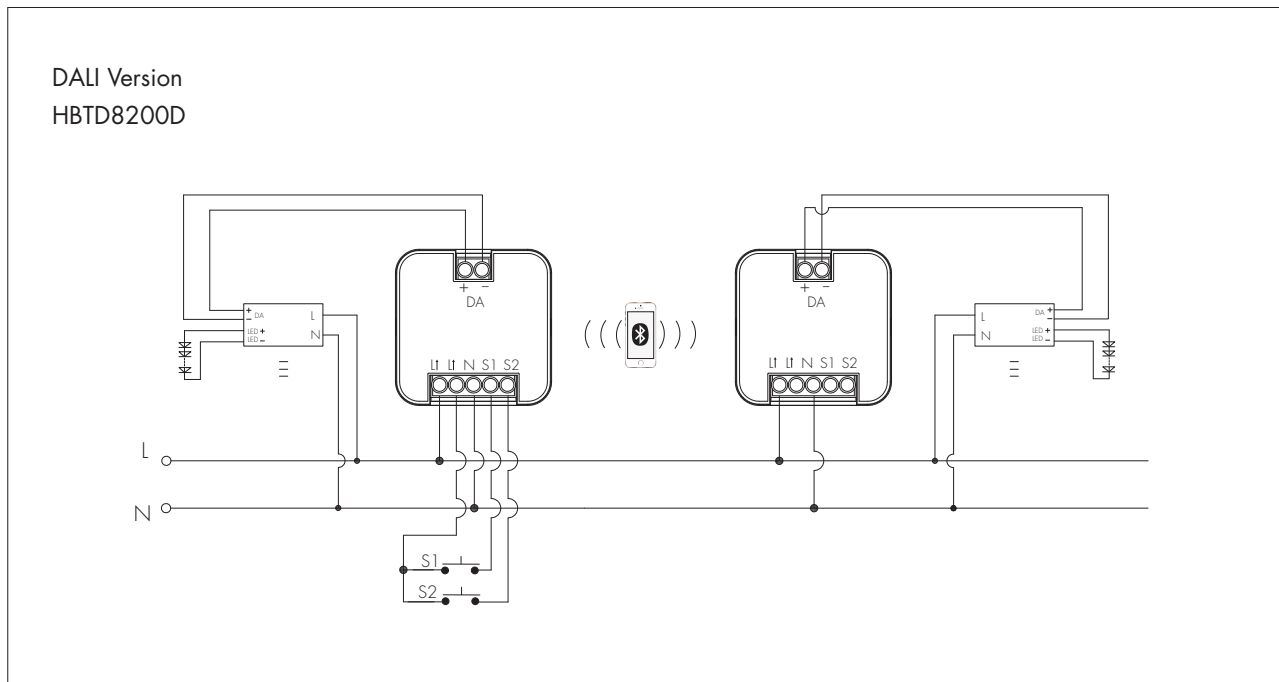
0/1-10V Version
HBTD8200V
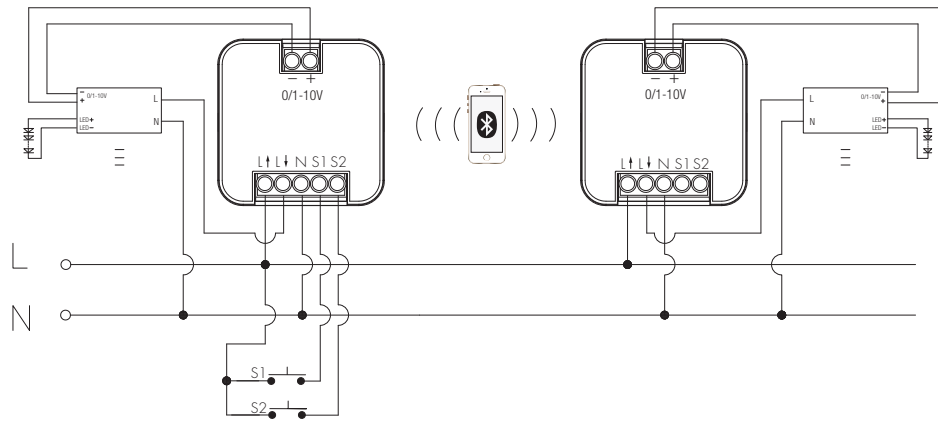


Trailing Edge Version (150VA)
HBTD8200T

Trailing Edge Version (2 x 100VA)
HBTD8200T2



- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

On/off Version
HBTD8200S

## Dimming Interface Operation Notes

### Switch-Dim

The provided Switch-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switches. Detailed Push switch configurations can be set on Koolmesh app.

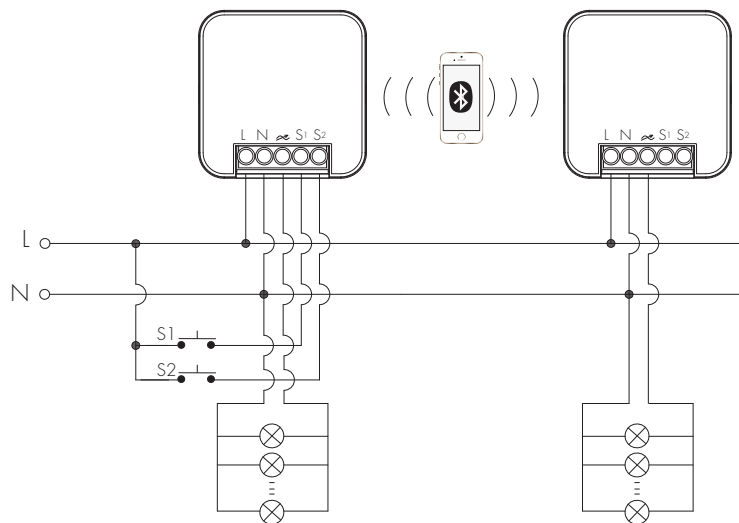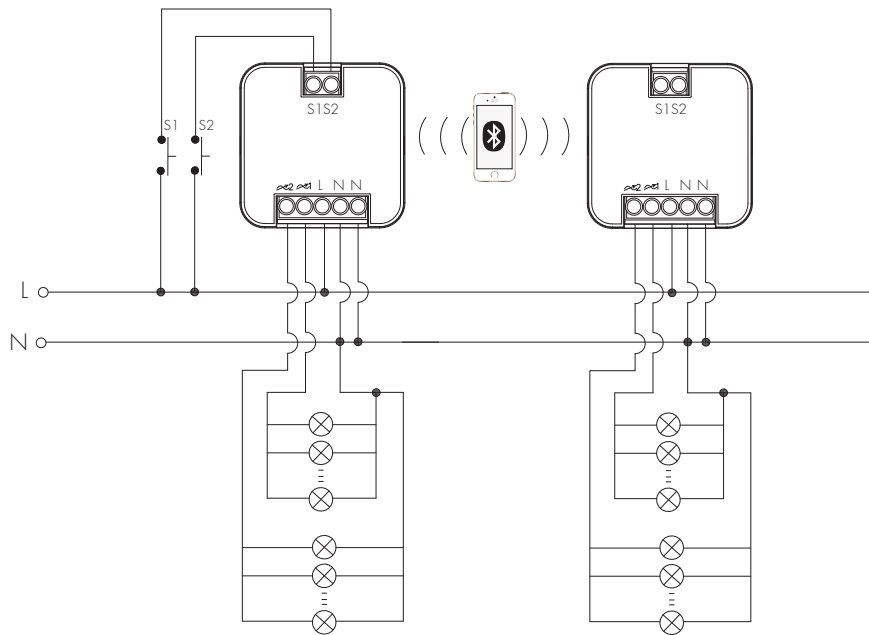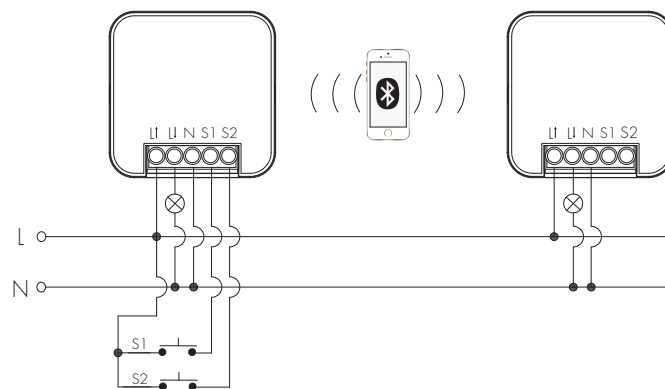| Switch Function | Action | Descriptions |
|---|---|---|
| Push switch | Short press (<1 second)<br>* Short press has to be longer than 0.1s, or it will be invalid. | - Turn on/off    - Recall a scene<br>- Turn on only    - Quit manual mode<br>- Turn off only    - Do nothing |
| | Double push | - Turn on only    - Quit manual mode<br>- Turn off only    - Do nothing<br>- Recall a scene |
| | Long press (≥1 second) | - Dimming<br>- Colour tuning<br>- Do nothing |
| Sensor-link | / | - Upgrade a normal on/off motion sensor to a Bluetooth controlled motion sensor |
| Emergency Self-Test Function | Short press (<1 second)<br>* Short press has to be longer than 0.1s, or it will be invalid. | - Start Self test (Monthly)    - Start Self test (Annually)<br>- Stop Self test    - Invalid |
| | Long press (≥1 second) | - Start Self test (Monthly)    - Start Self test (Annually)<br>- Stop Self test    - Invalid |
| Fire Alarm (VFC signal only) | Refer to **Koolmesh** ®App User Manual V2.1 | - Able to connect the Fire Alarm system<br>- Once the fire alarm system is triggered, all the luminaries controlled by the Push Switch will enter the preset scene (normally it's full on), after the fire alarm system gives the ending signal, all the luminaries controlled by this Push Switch will revert back to normal status. |

## Additional Information / Documents

1. To learn more about detailed product features/functions, please refer to
   www.hytronik.com/download->knowledge ->Introduction of App Scenes and Product Functions

2. Regarding precautions for Bluetooth product installation and operation, please kindly refer to
   www.hytronik.com/download ->knowledge ->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
   www.hytronik.com/products/bluetooth technology ->Bluetooth Dimmers

4. Regarding Hytronik standard guarantee policy, please refer to
   www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy