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 is designed to fit into a junction box or electrical box, enabling a Push switch (retractive switch) to achieve on/off control, dimming control, and scene recall. Among them, only the HBTD8200D model supports color tuning. Whether used for new builds or retrofit projects, this series provides intelligent control solutions for standard lighting fixtures. 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)

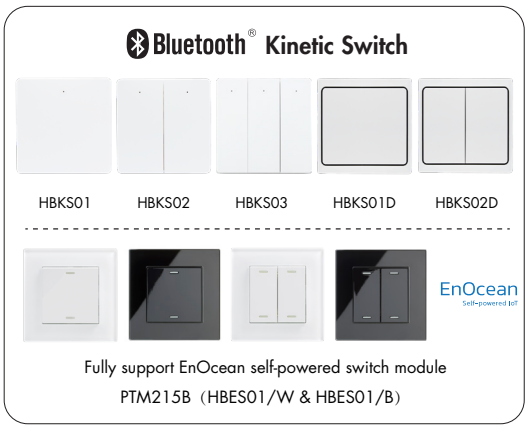
App Features

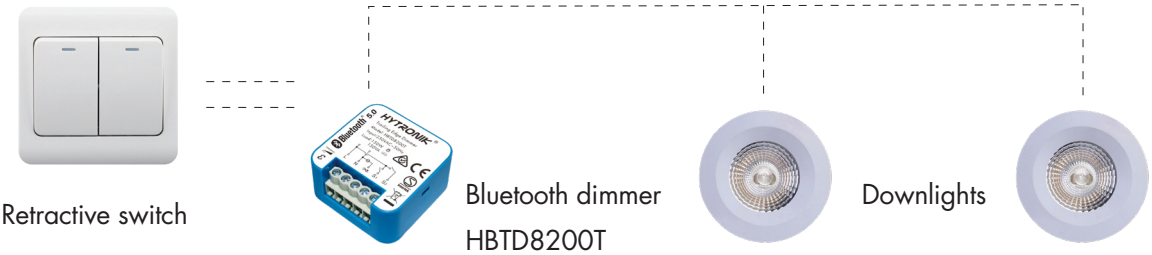
- Floorplan feature to simplify project planning
- Grouping luminaires via mesh network
- Scenes
- Push switch configuration
- Schedule to run scenes based on time and date
- Astro timer (sunrise and sunset)
- Device firmware update over-the-air (OTA)
- Power-on status (memory against power loss)
- Offline 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





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

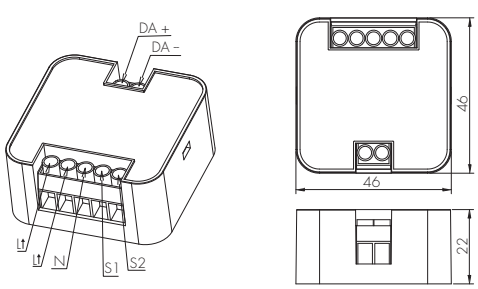
Environment	
Operation temperature	Ta: -20°C ~ +45°C
Case temperature (Max.)	
HBTD8200S	Tc: +75°C
HBTD8200T	Tc: +80°C
HBTD8200V	Tc: +75°C
HBTD8200D	Tc: +75°C
HBTD8200T2	Tc: +75°C
Storage temperature	-20°C ~ 60°C
Relative humidity	20 ~ 90%
IP rating	IP20
Insulation	Class II

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

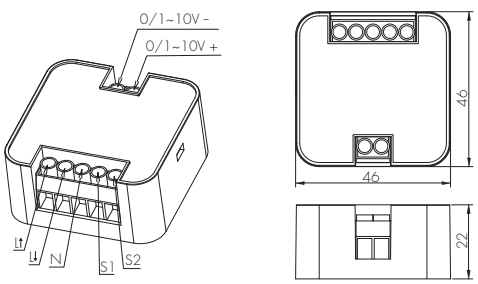
Safety & EMC	
EMC standard (EMC)	EN55015, EN61547 EN62479, EN61000
Safety standard (LVD)	IEC/EN 61058, AS/NZS 61058
Radio Equipment (RED)	EN300 328, EN301489-1/-17, EN62479
Certification	Semko, CB, CE , EMC, RED, RCM

Mechanical Structure & Dimensions

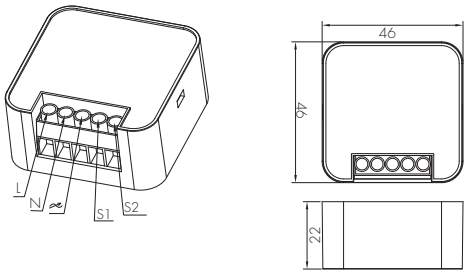
HBTD8200D - DALI Version



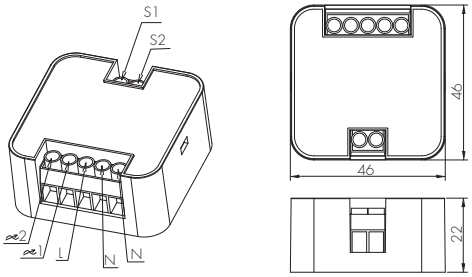
HBTD8200V - 0/1-10V] Version



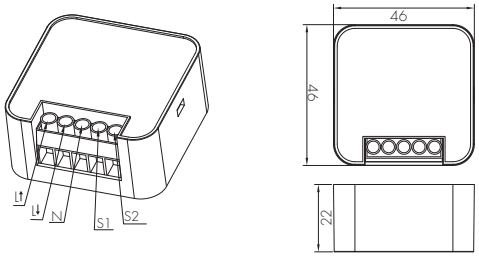
HBTD8200T - Trailing Edge Version (150VA)



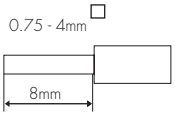
HBTD8200T2 - Trailing Edge Version (2 x 100VA)



HBTD8200S - On/off Version



Wire Preparation

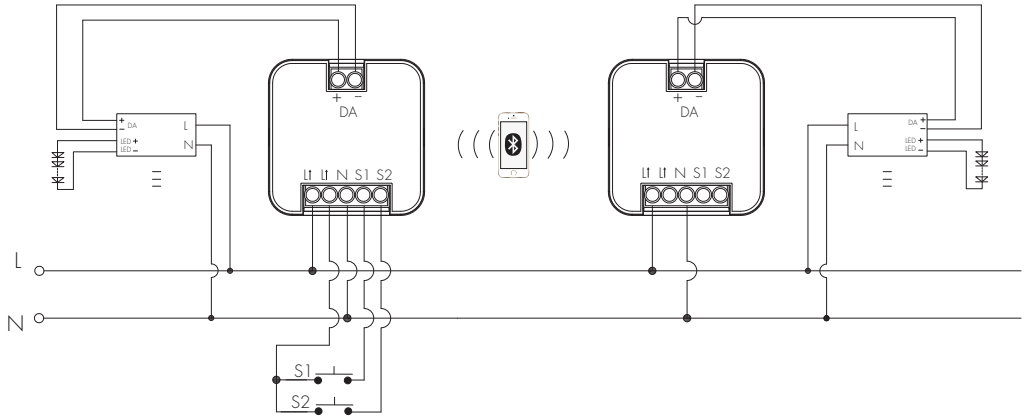


To make or release the wire from the terminal, use a screwdriver to push down the button.

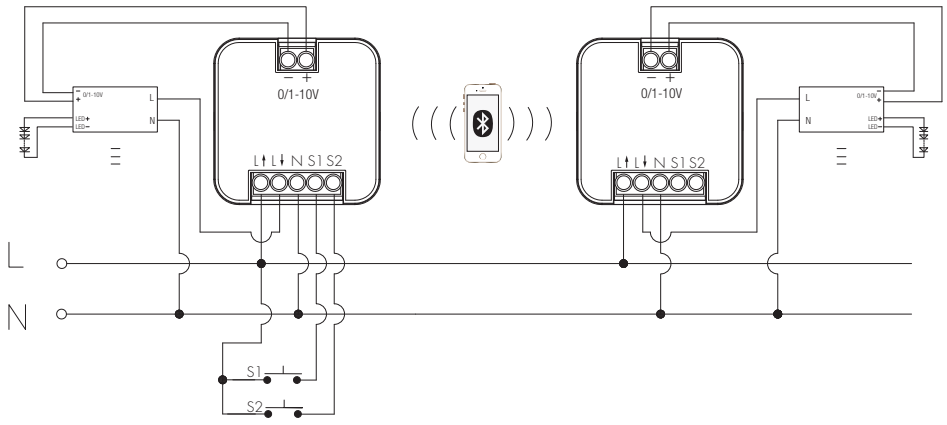
1. 200 metres (total) max. for 1mm² CSA (Ta = 50℃)
2. 300 metres (total) max. for 1.5mm² CSA (Ta = 50℃)

Wiring Diagram

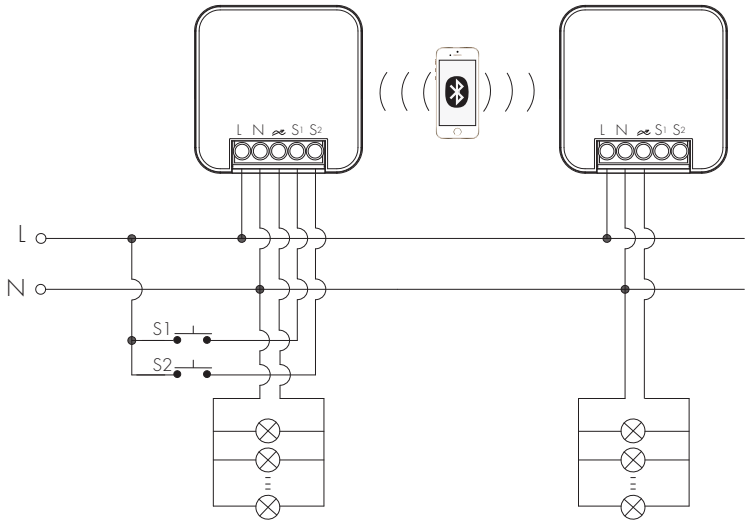
DALI Version
HBTD8200D



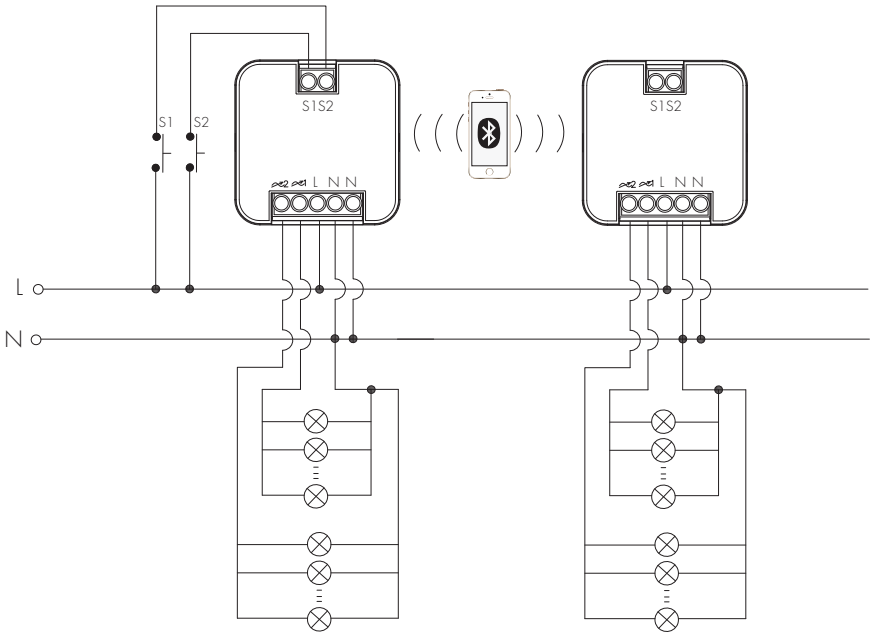
0/1-10V Version
HBTD8200V



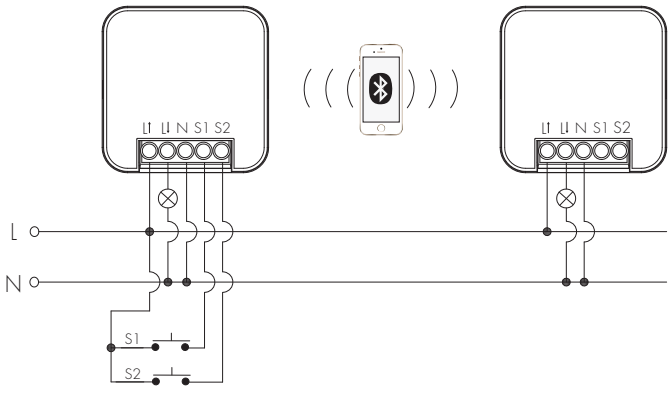
Trailing Edge Version (150VA)
HBTD8200T



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) * Short press has to be longer than 0.1s, or it will be invalid.	- Turn on/off - Turn on only - Turn off only - Recall a scene - Quit manual mode - Do nothing
	Double push	- Turn on only - Turn off only - Recall a scene - Quit manual mode - Do nothing
	Long press (≥1 second)	- Dimming - Colour tuning - 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) * Short press has to be longer than 0.1s, or it will be invalid.	- Start Self test (Monthly) - Stop Self test - Start Self test (Annually) - Invalid
	Long press (≥1 second)	- Start Self test (Monthly) - Stop Self test - Start Self test (Annually) - Invalid
Fire Alarm (VFC signal only)	Refer to Koolmesh® App User Manual V2.1	- Able to connect the Fire Alarm system - 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 kindly refer to https://hytronik.com/product/hbtd8200s

2. Regarding precautions for Bluetooth product installation and operation, please kindly refer to https://hytronik.com/service/downloads (Bluetooth Products Precautions for Product Iinstallation and Operation)

3. Data sheet is subject to change without notice. Please always refer to the most recent release on https://hytronik.com/products/controllers-dimmers

4. Regarding Hytronik standard guarantee policy, please kindly refer to https://hytronik.com/service/downloads (Guarantee Conditions document)