

## Declaration of Conformity

We, Hytronic Electronics Co., Ltd

3rd Floor, block C, complex building, 155#, Bai'gang road south,

Bai'gang village, Xiao Jin Kou town, Huicheng district, Huizhou, Guangdong, China.

Declare at our sole responsibility, that the devices as following are designed and manufactured is in conformity with the provisions of the following EU Directive(s) and that the standards and /or technical specifications referenced.

Brand:	Hytronic
Product models:	HBTD8200D/F
Type:	Bluetooth dimmer
Relevant EU directives:	2014/53/EU; 2011/65/EU(With EU 2015/863);
Standards complied	EN 61058-1:2018 EN 61058-1-2:2016 EN 55015:2013/A1:2015 EN 61547:2009 EN 61000-3-2:2019 EN 61000-3-3:2013/A1:2019 EN 300 328 V 2.2.2 EN 301 489-1 V2.2.3 EN 301 489-17 V3.1.1 EN 62479:2010

We declare as the manufacturer that the mentioned above complies with all essential requirements in the way specified and conforms with the type for which is above mentioned, and be affixed the CE-mark on the product or to the packaging and any accompanying documentation.

Oct.12th,2020

(place and date of issue)



*Simon Xia*

(Test Dep. Manager)( Simon Xia)

Dimmer mit  Bluetooth® 5.0 SIG Mesh			
HBTD8200S/F	HBTD8200T/F	HBTD8200V/F	HBTD8200D/F
ON/OFF	Phasenabschnittsteuerung	0/1-10V	DALI



### Produktbeschreibung

Die HBTD8200/F-Serie ist als integrierter Bluetooth-Empfangsknoten konzipiert. Sie können neben unserer Bluetooth-Bewegungsmelder-Reihe als Bluetooth-Empfangsknoten oder ausschließlich als Bluetooth-Steuereinheit für jede Leuchte verwendet werden. Für den Heimgebrauch, kommerzielle oder industrielle Anwendungen ist die HBTD8200/F-Serie geeignet. Die Geräteeinrichtung und Inbetriebnahme kann über die **Koolmesh™** App erfolgen.



DALI Version  
1-10V Version



Phasenabschnittsteuerung  
On-off Version

### App Eigenschaften

 Gruppierung von Leuchten über Mesh-Netzwerk

- Zwei Arten: Raum & Gruppe
- Synchronisationssteuerung

 7 Arten zum einrichten von Szenenoptionen

- Allgemeine Szenen
- Lux ON/OFF Szene
- Tageslichterkennung (offener Kreislauf)
- Tageslichterkennung (geschlossener Kreislauf)
- Zirkadianer Rhythmus (mit Tageslichtsensor)
- Zirkadianer Rhythmus (ohne Tageslichtsensor)
- Zeitbasierte Szene

 Push switch

 Zeitplan zur Ausführung von Szenen

 Astro timer

 Grundrissfunktion zur Vereinfachung der Projektplanung

 Status nach erneutem Einschalten (gegen Leistungsverlust)

 Offline-Inbetriebnahme / ohne Internet

 Unterschiedliche Berechtigungssebenen

 Nutzung des Netzwerks über QR-Code oder Keycode

 Fernsteuerung über Gateway-Unterstützung HBGW01 ab 2021

 Kompatibilität Hytronik Bluetooth-Produktportfolio

 kompatibel mit drahtlosen Schaltern von EnOcean Firmware

 update over-the-air (OTA)

\* Bestimmte Szenen, die eine externe Fotozelle erfordern, können durch die Verwendung zusammen mit Hytronik Bluetooth-Sensoren HBR29, HCD038/BT + Sensorkopf usw. erreicht werden.

### Hardware Eigenschaften

 HBTD8200S/F: ON/OFF Steuerung mit:

400VA (kapazitive) & 800W (resistive)



HBTD8200T/F: Phasenabschnitt - 150VA (kapazitive)



HBTD8200V/F: 1-10V Ausgang:

400VA (kapazitive) & 800W (resistive) mit Relaissteuerung



HBTD8200D/F: 100mA DALI - Ausgang für bis zu 50 LED-Treiber



Kompaktes Design mit zwei Schraublöchern für den Leuchten Einbau



2 Push-Eingänge für flexible manuelle Steuerung



Nulldurchgangs-Erkennungsschaltung zur Reduzierung des Einschaltstroms und zur Verlängerung der Lebensdauer des Relais (HBTD8200S/F und HBTD8200V/F)



Schutz vor Kurzschluss



Schutz vor Überlastung



5 Jahre Garantie

## Bluetooth 5.0 SIG mesh



ab iOS 10.0



ab Android 5.0



**EnOcean**  
Self-powered IoT

Fully support  
EnOcean switch



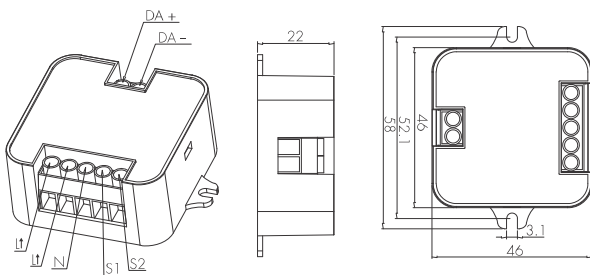
## Technische Daten

Bluetooth-Empfänger	
Netzspannung	2.4 GHz - 2.483 GHz
Übertragungsleistung	7 dBm
Reichweite (Innenräume)	10~30m
Ausgabe	5.0 SIG Mesh
Umgebung	
Umgebungstemperatur	Ta: -20°C ~ +45°C
Gehäusetemperatur (Max.)	
HBTD8200S/F	Tc: +75°C
HBTD8200T/F	Tc: +80°C
HBTD8200V/F	Tc: +75°C
HBTD8200D/F	Tc: +75°C
Lagertemperatur	-20°C ~ 60°C
Relative Luftfeuchtigkeit	20 ~ 90%
IP Schutzart	IP20
Isolierung	Klasse II

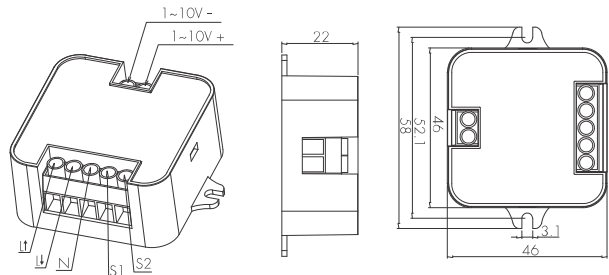
Input- & Output-Merkmale	
Betriebsspannung:	
HBTD8200S/F	220~240VAC 50Hz
HBTD8200T/F	230VAC 50Hz
HBTD8200V/F	220~240VAC 50Hz
HBTD8200D/F	220~240VAC 50/60Hz
Stand-by	<0.5W
Belastungswerte:	
HBTD8200S/F	400VA(kapazitive), 800W(resistive)
HBTD8200T/F	150VA(kapazitive), 150W(resistive)
HBTD8200V/F	400VA(kapazitive), 800W(resistive)
HBTD8200D/F	100mA,16VDC (max. 50 Geräte)
Sicherheit und EMC Normen	
EMC Normen	EN55015, EN61547, EN62479, EN61000
Sicherheitsnormen (LVD)	IEC/EN 61058, AS/NZS 61058
Radio Equipment (RED)	EN300 328, EN301489-1/-17, EN62479
Zertifizierung	Semko, CB, CE , EMC, RED, RCM

## Mechanische Struktur und Abmessungen

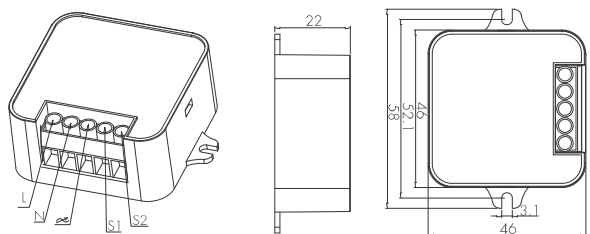
HBTD8200D/F - DALI Version



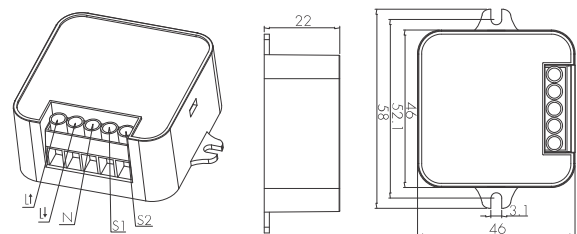
HBTD8200V/F - 1-10V Version



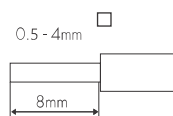
HBTD8200T/F - Phasenabschnittsteuerung Version



HBTD8200S/F - On/off Version



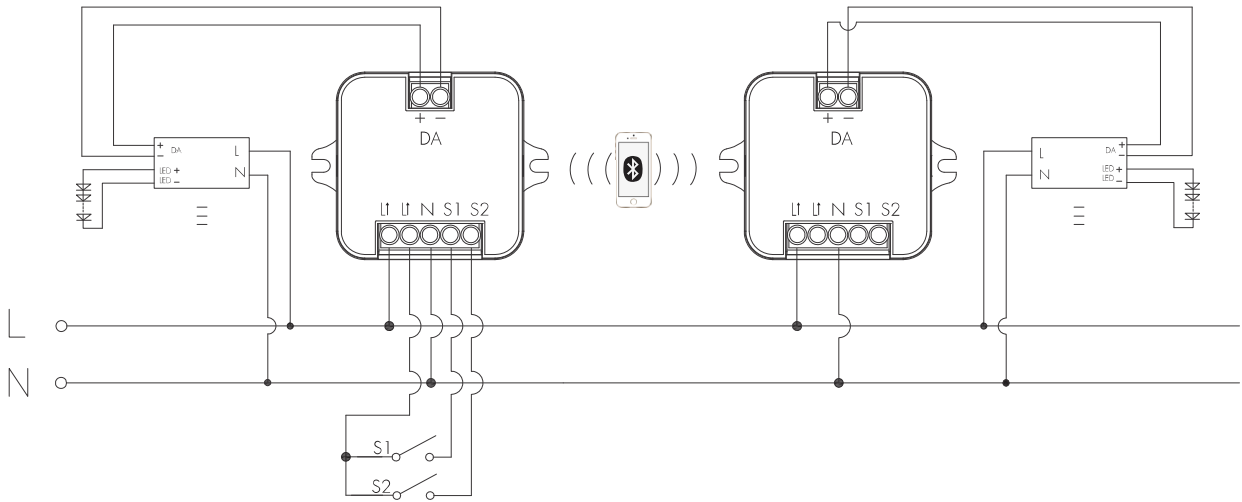
## Kabelführung



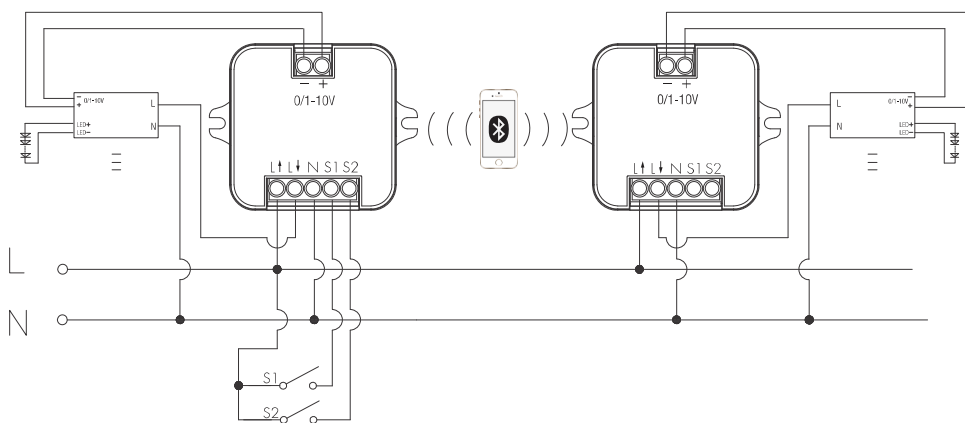
Um den Draht an der Klemme zu befestigen oder zu lösen, drehen Sie die Schraube mit einem Schraubendreher nach unten oder nach oben.

# Schaltplan

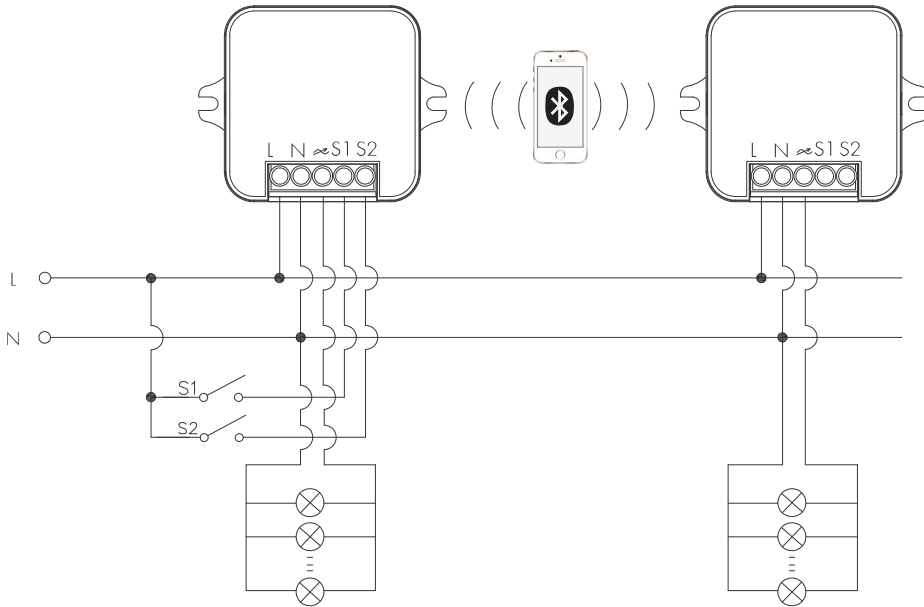
DALI Version  
HBTD8200D/F



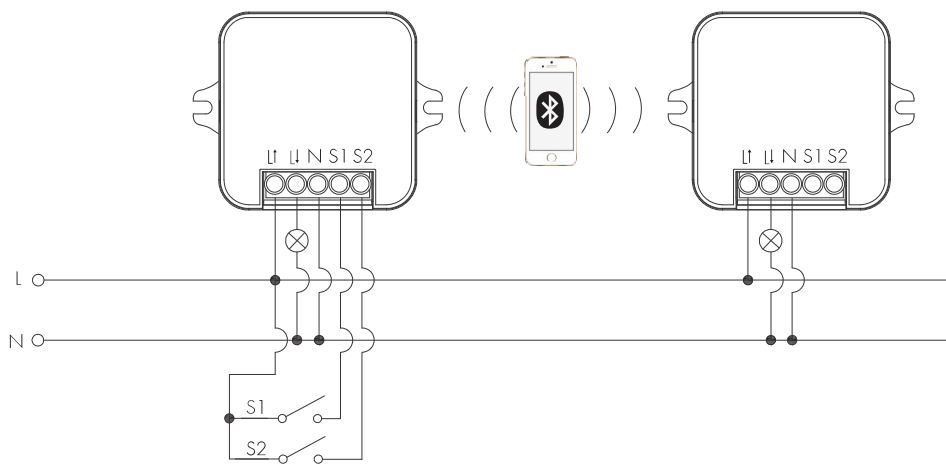
1-10V Version  
HBTD8200V/F



Phasenabschnittsteuerung Version (150VA)  
 HBTD8200T/F



On/off Version  
 HBTD8200S/F



## Hinweise zum bedienen der Dimmerschnittstelle

### Switch-Dim

Die bereitgestellte Switch-Dim-Schnittstelle ermöglicht eine einfache Dimmmethode unter Verwendung handelsüblicher nicht einrastender (Taster) Wandschalter. Detaillierte Push-Schalter-Konfigurationen können in der Koolmesh-App eingestellt werden.

Schalter-Funktion	Maßnahme	Erläuterungen
Push switch	Kurz drücken (<1 Sekunde)	- Ein-/Ausschalten - Nur einschalten - Nur ausschalten - Szene zurückrufen - Beenden des manuellen Modus - Keine weiteren Änderungen
	Doppelt Drücken	- Nur einschalten - Nur ausschalten - Szene zurück rufen - Beenden des manuellen Modus - Keine weiteren Änderungen
	Lange Drücken (≥1 Sekunde)	- Verdunkelung - Farbabstimmung - Keine weiteren Änderungen
Sensor simulieren	/	- Upgrade eines normalen Ein/Aus-Bewegungssensors zu einem Bluetooth-gesteuerten Bewegungssensor

## Zusätzliche Informationen / Dokumente

### 1. Produktmerkmale und Funktionen

[www.hytronik.com/download](http://www.hytronik.com/download) ->knowledge ->Introduction of App Scenes and Product Functions

### 2. Vorsichtsmaßnahmen für die Installation und den Betrieb von Bluetooth-Produkten

[www.hytronik.com/download](http://www.hytronik.com/download) ->knowledge ->Bluetooth Products - Precautions for Product Installation and Operation

### 3. Das Datenblatt kann ohne Vorankündigung geändert werden. Bitte beziehen Sie sich immer auf die aktuellste Version

[www.hytronik.com/products/bluetooth technology](http://www.hytronik.com/products/bluetooth%20technology) ->Bluetooth Sensors

### 4. Hytronik-Standardgarantie

[www.hytronik.com/download](http://www.hytronik.com/download) ->knowledge ->Hytronik Standard Guarantee Policy

**HYTRONIK ELECTRONICS CO.,LTD**  
3rd Floor, block C, complex building, 155#, Bai'gang road south, Bai'gang village  
Xiao Jin Kou town, Huicheng district  
516023 Huizhou  
China

Built-in Receiver Nodes with  Bluetooth® 5.0 SIG Mesh

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
















# HYTRONIK®



## Product Description

HBTD8200/F series are designed as Bluetooth built-in receiver node. They can be used alongside our Bluetooth motion sensor range as Bluetooth receiver nodes. Or, they can also be used solely as Bluetooth control unit for each luminaire. Whether for home use, commercial or industrial applications, HBTD8200/F series does it all. Simple device setup and commissioning can be done via **Koolmesh™** app.

## App Features

-  Grouping luminaires via mesh network
  - Two levels: room & group
  - Synchronization control
-  7 types of scene options to set up\*
  - Generic Scenes
  - Lux ON/OFF Scenes
  - Daylight Harvest (Open loop)
  - Daylight Harvest (Closed loop)
  - Simple circadian rhythm without daylight sensor
  - Advanced circadian rhythm with daylight sensor
  - Time-based Scene
-  Push switch configuration
-  Schedule to run scenes based on time and date
-  Astro timer (sunrise and sunset)
-  Floorplan feature to simplify project planning
-  Status after re-powered on (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 range of wireless switches
-  Device firmware update over-the-air (OTA)
-  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.













DALI Version  
1-10V Version

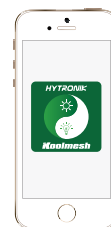


Trailing Edge Version  
On-off Version

## Hardware Features

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

## Bluetooth 5.0 SIG mesh



iOS 10.0 or later




Android 5.0 or later



**EnOcean**  
Self-powered IoT

Fully support  
EnOcean switch

## Technical Specifications

Bluetooth Transceiver	
Operation frequency	2.4 GHz - 2.483 GHz
Transmission power	7 dBm
Range (Typical indoor)	10~30m
Protocol	 Bluetooth® 5.0 SIG Mesh

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

## Input & Output Characteristics

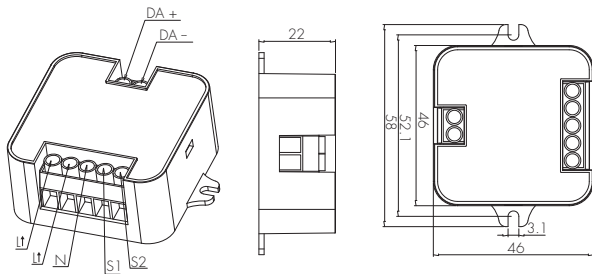
Operating voltage:	
HBTD8200S/F	220~240VAC 50Hz
HBTD8200T/F	230VAC 50Hz
HBTD8200V/F	220~240VAC 50Hz
HBTD8200D/F	220~240VAC 50/60Hz
Stand-by power	<0.5W
Load ratings:	
HBTD8200S/F	400VA(Capacitive), 800W(Resistive)
HBTD8200T/F	150VA(Capacitive), 150W(Resistive)
HBTD8200V/F	400VA(capacitive), 800W(resistive)
HBTD8200D/F	100mA, 16VDC(max. 50 devices)

## Safety & EMC

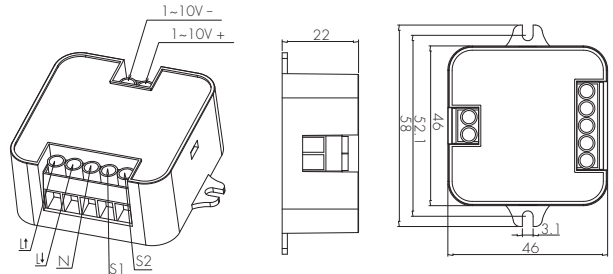
EMC standard (EMC)	EN55015, EN61547, EN62479, EN61000
Safety standard (LVD)	IEC/EN 61058, AS/NZS 61058
Radio Equipment (RED)	EN300 328, EN301489-1/-17, EN62479
Certification	Semko, CB, CE, EMC, RED, RCM

## Mechanical Structure & Dimensions

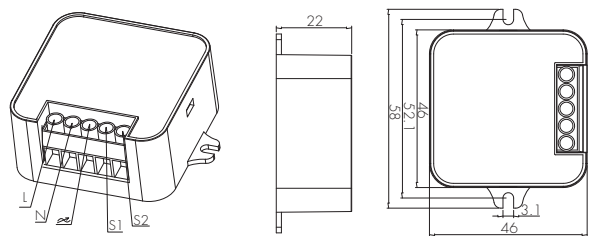
HBTD8200D/F - DALI Version



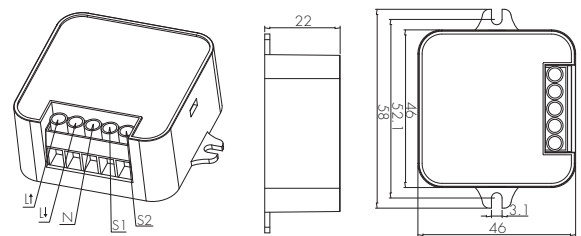
HBTD8200V/F - 1-10V Version



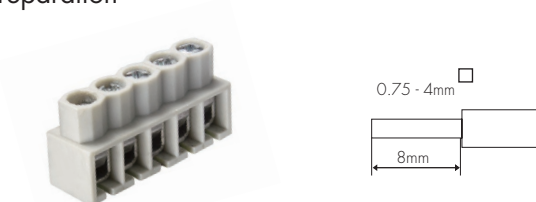
HBTD8200T/F - Trailing Edge Version



HBTD8200S/F - On/off Version



## Wire Preparation

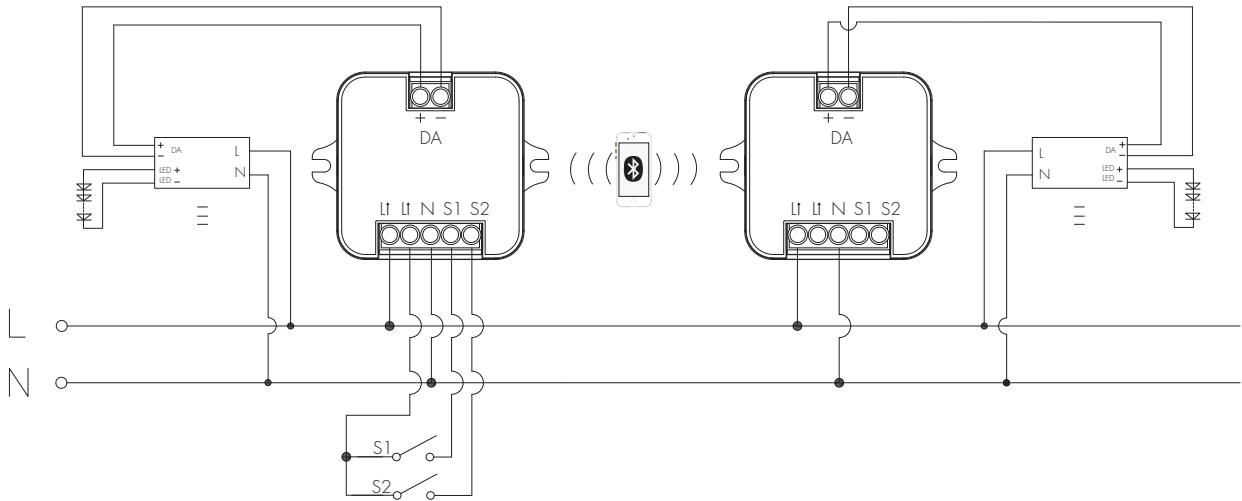


To make or release the wire from the terminal, use a screwdriver to push down the button.

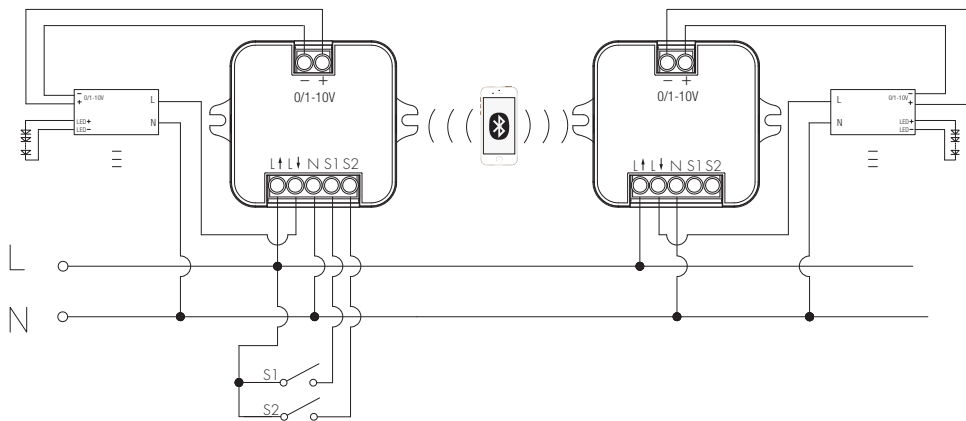


# Wiring Diagram

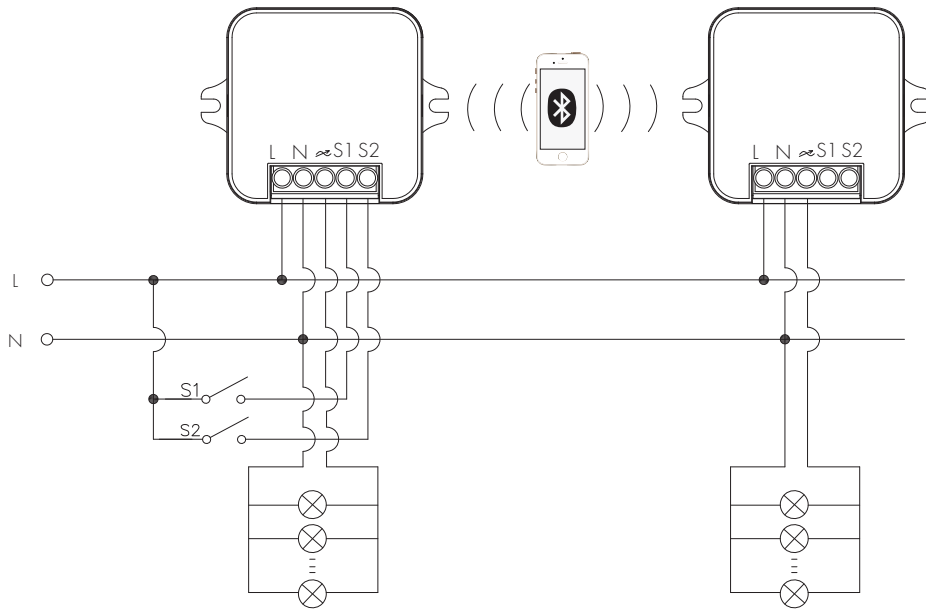
DALI Version  
HBTD8200D/F



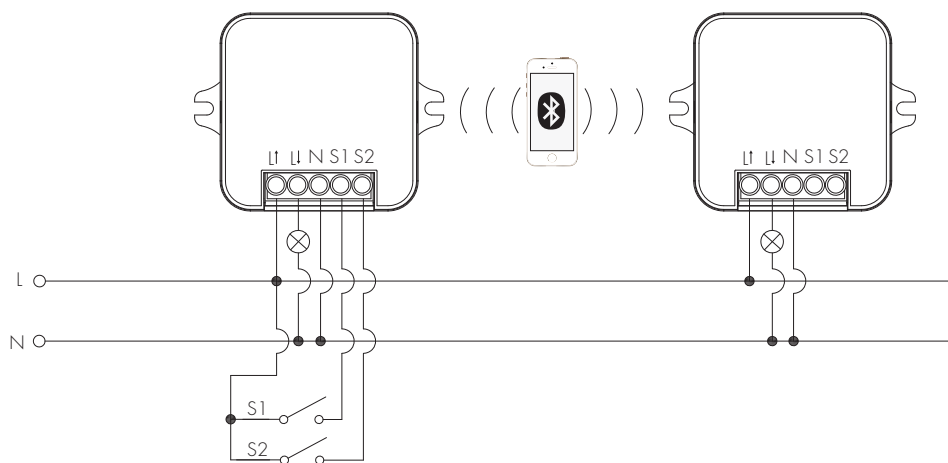
1-10V Version  
HBTD8200V/F



Trailing Edge Version (150VA)  
 HBTD8200T/F



On/off Version  
 HBTD8200S/F



## 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 - Exit manual mode - Do nothing
	Double push	- Turn on only - Turn off only - Recall a scene - Exit manual mode - Do nothing
	Long press ( $\geq 1$ second)	- Dimming - Colour tuning - Do nothing
Simulate sensor	/	- Upgrade a normal on/off motion sensor to a Bluetooth controlled motion sensor

### 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](http://www.hytronik.com/download->knowledge->Introduction%20of%20App%20Scenes%20and%20Product%20Functions)
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](http://www.hytronik.com/download->knowledge->Bluetooth%20Products%20-%20Precautions%20for%20Product%20Installation%20and%20Operation)
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 Sensors](http://www.hytronik.com/products/bluetooth%20technology->Bluetooth%20Sensors)
4. Regarding Hytronik standard guarantee policy, please refer to [www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy](http://www.hytronik.com/download->knowledge->Hytronik%20Standard%20Guarantee%20Policy)