

Built-in Receiver Nodes with  Bluetooth® 5.0 SIG Mesh

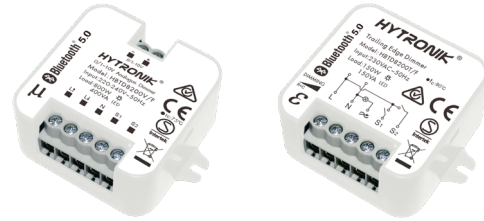
HBTD8200S/F	HBTD8200T/F	HBTD8200V/F	HBTD8200D/F
Relay Control	Trailing Edge	0/1-10V	DALI

**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.













DALI Version  
1-10V Version

Trailing Edge Version  
On-off Version

**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...


**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
-  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

\* Certain scenes which require external photocell can be achieved by using together with Hytronik Bluetooth sensors, such as HBIR29, HCD038/BT + sensor head etc.




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


 **Bluetooth® 5.0 SIG mesh**



Smartphone app for both iOS & Android platform




for iOS




for Android

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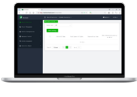


Koolmesh Pro app for iPad




for iPad

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Web app/platform: [www.iot.koolmesh.com](http://www.iot.koolmesh.com)



for Web

## 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/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
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Load ratings:	
HBTD8200S/F	400VA(capacitive), 800W(resistive)
HBTD8200T/F	150VA(capacitive), 150W(resistive)
HBTD8200V/F	400VA(capacitive), 800W(resistive)
HBTD8200D/F	I guaranteed: 80mA, I max: 100mA U rated: 15VDC

## Safety & EMC

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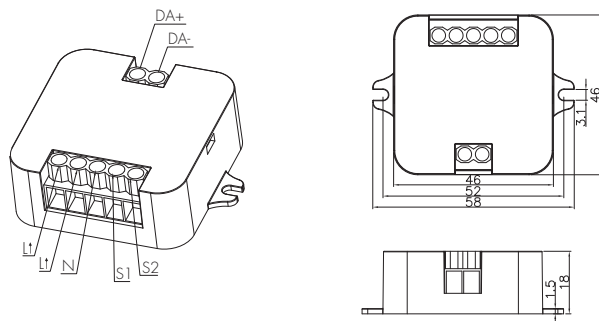
Safety standard (LVD)	IEC/EN 61058, AS/NZS 61058
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Radio Equipment (RED)	EN300 328, EN301489-1/-17, EN62479
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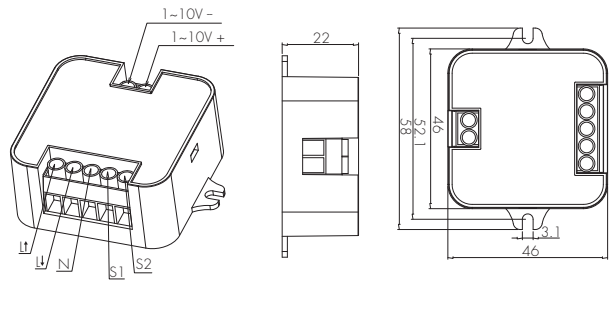
Certification	Semko, CB, CE, EMC, RED, RCM
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## Mechanical Structure & Dimensions

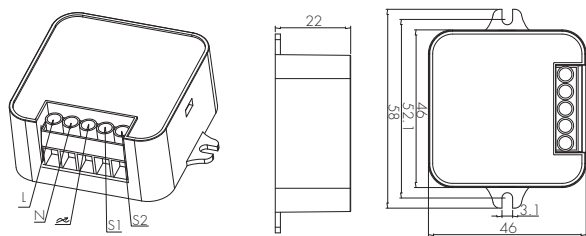
HBTD8200D/F - DALI Version



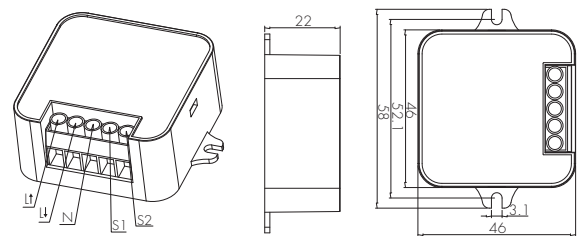
HBTD8200V/F - 1-10V Version



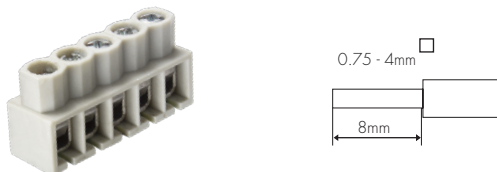
HBTD8200T/F - Trailing Edge Version



HBTD8200S/F - On/off Version



## Wire Preparation

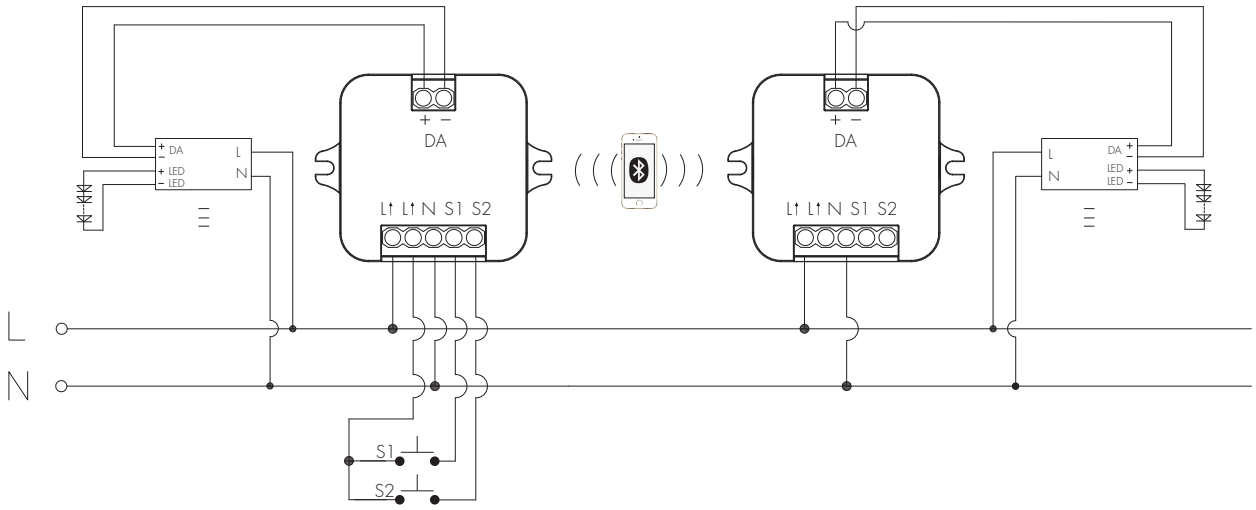


To make or release the wire from the terminal, use a screwdriver to push down the button.

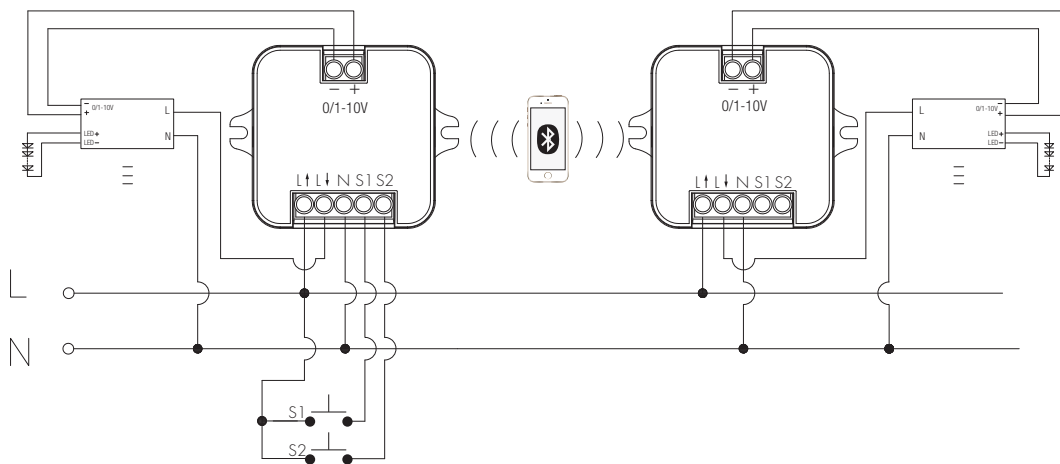
1. 200 metres (total) max. for 1mm<sup>2</sup> CSA (Ta = 50 C)
2. 300 metres (total) max. for 1.5mm<sup>2</sup> CSA (Ta = 50 C)

# Wiring Diagram

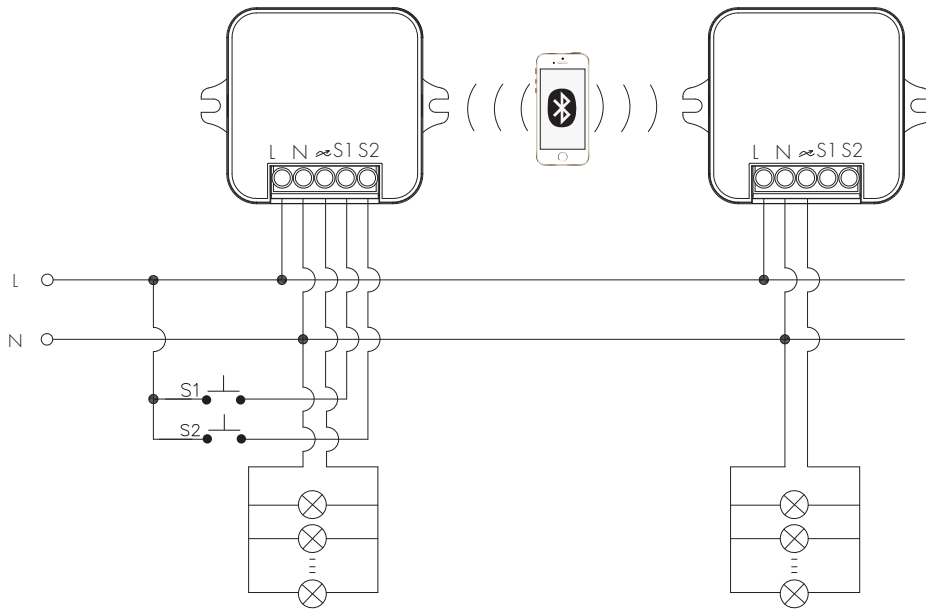
DALI Version  
HBTD8200D/F



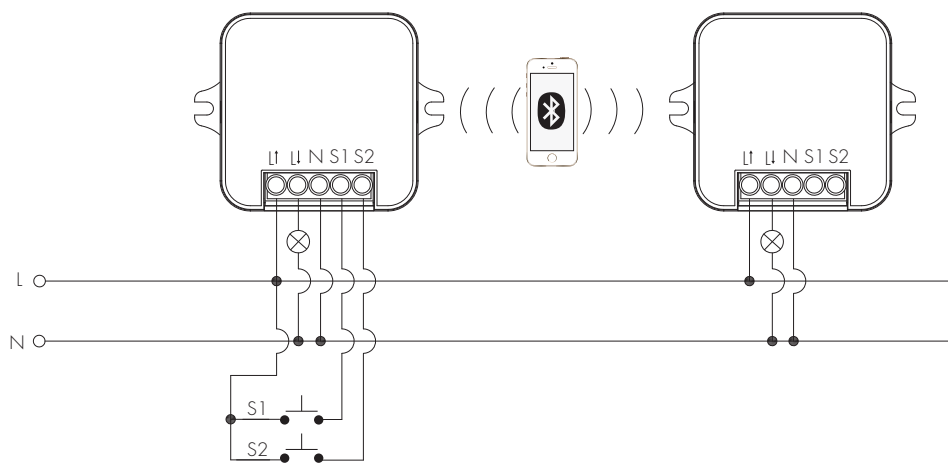
1-10V Version  
HBTD8200V/F



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 - 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 <b>Koolmesh™</b> 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

- 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)
- 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)
- 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)
- 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)