



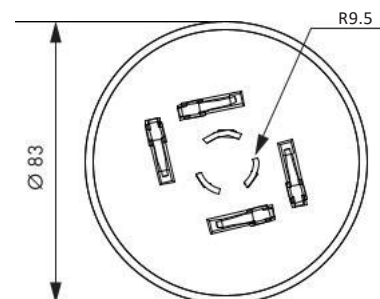
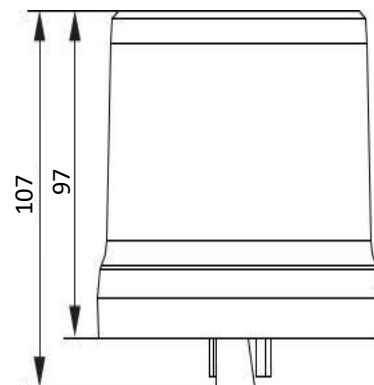
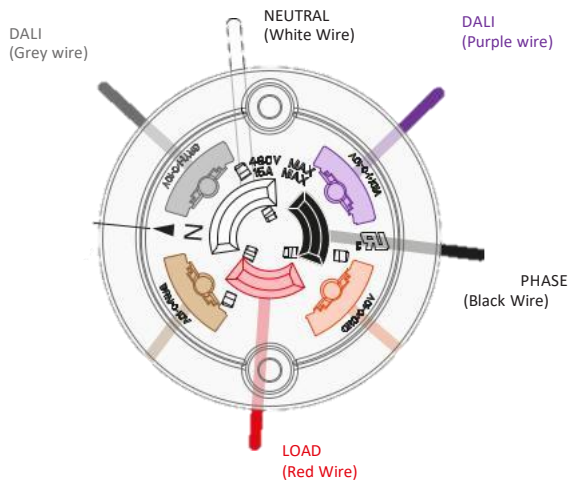
Technical Specifications

Product type	Bluetooth controller in a NEMA enclosure
Line voltage	220~240VAC 50/60Hz
Rated load	Maks. 100 mA, 50 Devices
Standby power	<0.5W
Operating frequency	2,4 GHz - 2,483 GHz
Transmission power	4 dBm
Distance between modules	max. 50m
Protocol	Bluetooth 5.0 SIG Mesh
Operating Temperature	Ta: -20°C ~ +45°C
Enclosure Temperature (Max)	Tc: +75°C
Storage Temperature	-20°C ~ +60°C
Maximum Relative Humidity	20 ~ 90%
Degree of mechanical protection	IP66 (IEC 60529)
Max instantaneous voltage	2,5KV
Type of work	S1
Insulation Material	Material group PTI IIIa
Glow Wire	Level 3, 850°C
Protection IK	IK09 (IEC 62262)
Insulation	Class II
Electromagnetic Compatibility (EMC) Standard	EN55015, EN61547, EN61000-3-2, EN61000-3-3
Safety Standard (LVD)	IEC 61058-1, EN 61058-1, IEC 61058-1-2, EN 61058-1-2, AS/NZS 61058.1
Radio Equipment (RED)	EN300 328, EN301489-1, EN301489-17, EN62479



Version DALI
















NEMA enclosure electrical connection diagram:












Product Description

HBTD8200/F controller series are designed as Bluetooth built-in receiver nodes. They can be used alongside our Bluetooth motion sensor range as Bluetooth receiver nodes. 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. An external antenna version is available for embedding in steel luminaires. Simple device setup and commissioning can be done via Lena Lighting Clue app.

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 Bluetooth product portfolio
-  Compatible with EnOcean BLE switches
-  Continuous development in progress...

Hardware Features

-  HBTD8200S/F: ON/OFF control with load ratings: 400VA (capacitive) & 800 W (resistive)
-  HBTD8200V/F: 1-10V output: 400VA (capacitive) & 800 W (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

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




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

LENA LIGHTING | Clue[®]

Smartphone app for both iOS & Android platform

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



Technical Specifications

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

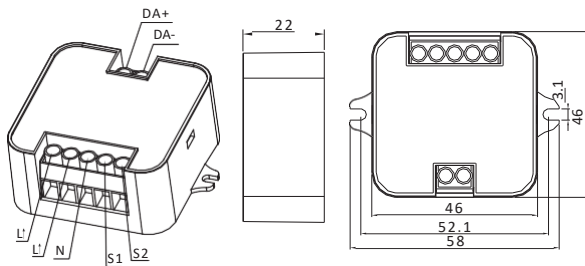
Environment	
Operation temperature	Ta: -20°C ~ +45°C
Case temperature (Max.)	
HBTD8200S/F	Tc: +75°C
HBTD8200V/F	Tc: +75°C
HBTD8200D/F	Tc: +75°C
Storage temperature	-20°C ~ 60°C
Relative humidity	20 ~ 90%
IP rating	IP20
Insulation	Class II

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

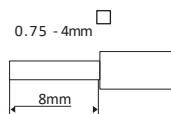
Safety & EMC	
EMC standard (EMC)	EN55015, EN61547, EN62479, EN61000
Safety standard (LVD)	IEC/EN 61058, AS/NZS 61058
Radio Equipment (RED)	EN300 328, EN301489-1/-17, EN62479
Certification	Semko, CB, CE, EMC, RED, RCM

Mechanical Structure & Dimensions

HBTD8200D/F -DALI Version



Wire Preparation



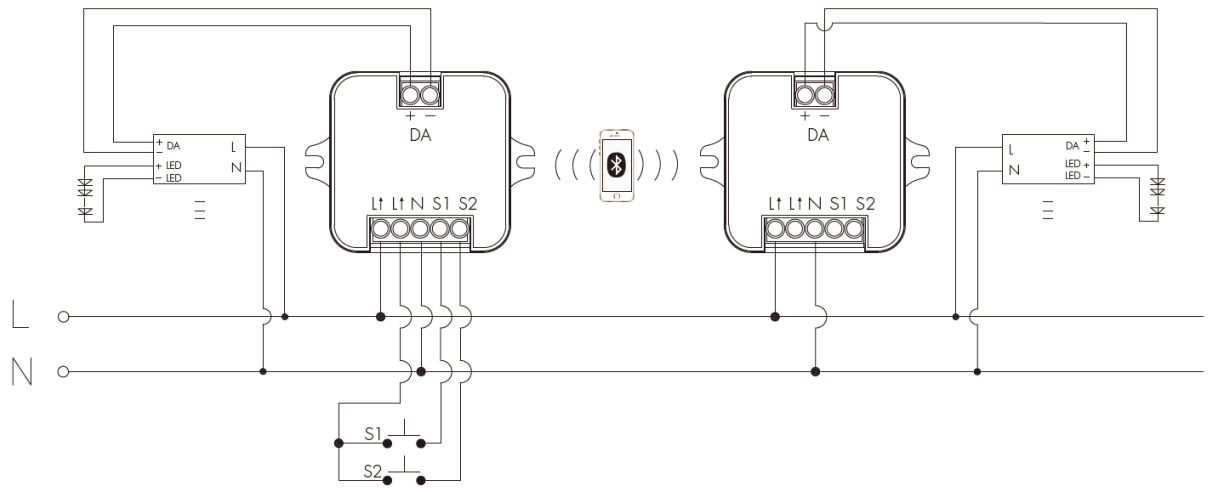
To make or release the wire from the terminal, use a screwdriver to push down the button.

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

Wiring Diagram

DALI Version

HBTD8200D/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 Lena Lighting Clue 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 Lena Lighting Clue App	- 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.

For more information, contact iot@lenalighting.pl