Dimmer With 🅱 Bluetooth® Wireless Technology

HYTRONIK ®

Socket mounting: HBTD8200D   HBTD8200V   HBTD8200T   HBTD8200S
Fixture mounting: HBTD8200D/F HBTD8200V/F HBTD8200T/F HBTD8200S/F

🅱® ⏚ Trailing Edge ⊡ 1~10V dimming IP20

CE emc RED Ⓢ Intertek CB

Applications

The freedom of wireless mesh networks configured by smartphone APP's considerably changes the approach to connected lighting controls. Hytronik has designed such lighting controls using 🅱 Bluetooth® 4 wireless mesh technology to support the functional demands of most commercial and domestic applications:

■ Office / Commercial Lighting
■ Domestic Homes

HBTD8200D(/F) DALI Digital Wireless Dimmer

Using the DALI protocol in 'broadcast' mode provides support for modern LED lighting fixtures. The built-in DALI power supply can support up to 50 lighting points with flicker-free operation when used with quality DALI LED drivers, such as the Hytronik Premium DALI range.

HBTD8200V(/F) 1-10V Analogue Wireless Dimmer

This version is provided to support the use of 1-10V analogue dimmable lighting fixtures which are still widely used in LED lighting controls today. This model also features a relay capable of switching 300VA and can be used as a simple 'wireless switch' if dimming is not required.

HBTD8200T(/F) 150W Trailing Edge Wireless Dimmer

The device adds intelligent control to most domestic lamps which are designed to be dimmed using traditional trailing edge triac dimmers, this version is suitable for retro-fit or new-build / refurbishment projects.

HBTD8200S(/F) 300VA On/off Wireless Switch

Designed for cost-effective intelligent control of fixed output luminaires, however this versatile device maybe used to add automation to any appliance which requires simple mains control.

All models support 2 manual retractive (non-latching) switch inputs to provide manual operation of the lighting. The free to download and use App provides the user with automated control functions as well as the ability to set up the points in logical groups to create scenes.

Socket mounting   Fixture mounting

DALI / 1-10V Version

Socket mounting   Fixture mounting

Trailing Edge / On-off Version

Features

⊡ 100mA broadcast DALI output (DT8) for up to 50 LED drivers per node.

◻ 1-10V output control option - also can be used for on/off relay control

◻ 150VA trailing edge output version.

🌐 Free smartphone (iOS and Andriod) App for set-up and comissioning:

- ⬚ Scene control
- 🌴 Holiday mode
- 🕐 Scheduling
- ⏱ Bio-alarm
- 🖱 Push switch configuration: recall scene / external motion sensor compatible
- ☀ Astro timer

⊡ 2-input Switch-Dim with synchronisation for simple manual over-ride

⊡ Short circuit protection

⊡ Over-load protection

⊡ Permanent settings memory, protected against loss of power

⑤ 5 Year, 50,000hr warranty

Free smartphone App for set-up and commissioning

HYTRONIK

 Download on the APP Store

 Compatible with iOS 9.0 or later
iOS

🤖 Compatible with Android 5.0 or later
ANDROID

DALI Version

Socket mounting HBTD8200D

DA +
DA –

L↑ N S1 S2

46
46
22

Fixture mounting HBTD8200D/F

DA +
DA –

L↑ N S1 S2

22
46
52.1
58
46
3.1
46

1-10V Version

Socket mounting HBTD8200V

0/1~10V –
0/1~10V +

L↑ N S1 S2

46
46
22
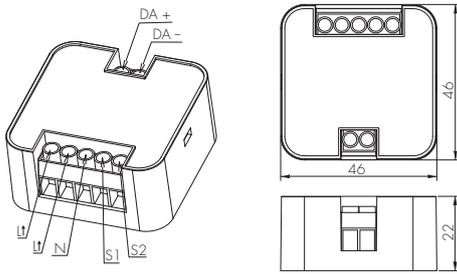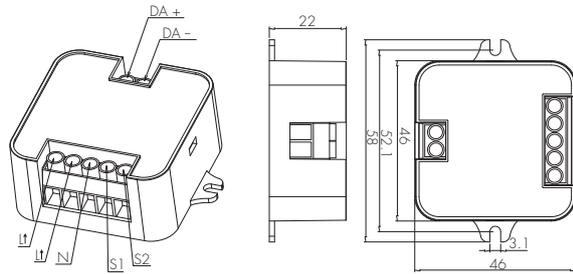
Fixture mounting HBTD8200V/F

0/1~10V –
0/1~10V +

L↑ N S1 S2

22
46
52.1
58
46
3.1
46
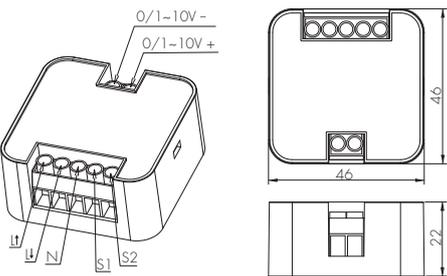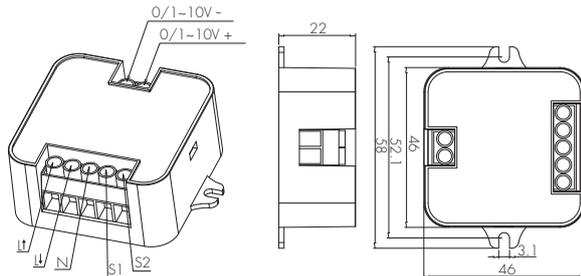
Trailing Edge Version

Socket mounting HBTD8200T

L N S1 S2

46
46
22

Fixture mounting HBTD8200T/F

L N S1 S2

22
46
52.1
58
46
3.1
46
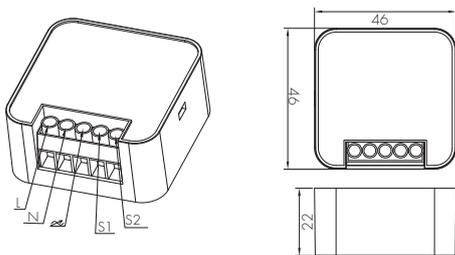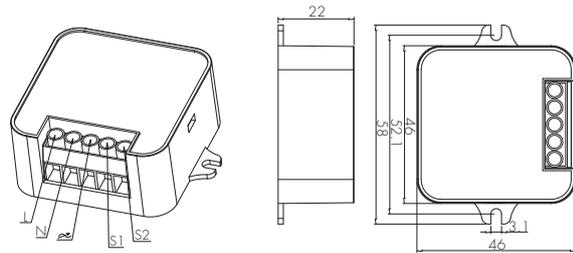
On/off Version

Socket mounting HBTD8200S

L↑ N S1 S2

46
46
22

Fixture mounting HBTD8200S/F

L↑ N S1 S2

22
46
52.1
58
46
3.1
46
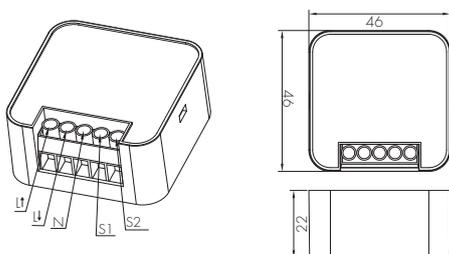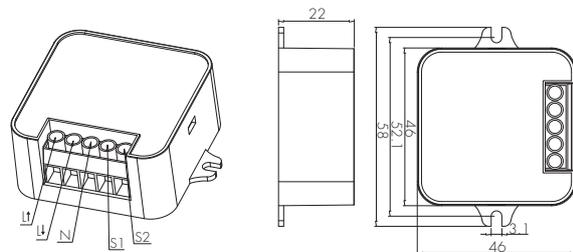
Wire Preparation

Rising clamp terminal.

0.75 - 4mm

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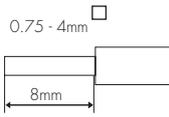
To make or release the wire from the terminal, use a screwdriver to push down the button.

DALI Version
HBTD8200D (/F)

DA
+ −
L↑ L↓ N S1 S2
L
N
S1
S2
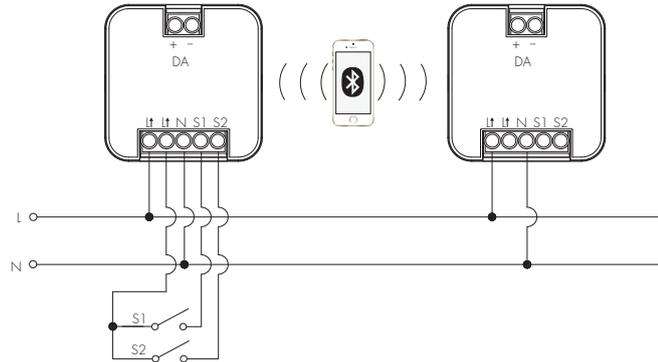
1-10V Version
HBTD8200V (/F)

0/1-10V
− +
HBTD8200V
L↑ L↓ N S1 S2
L
N
S1
S2

Note: the 1-10V leads can not be short-circuit.
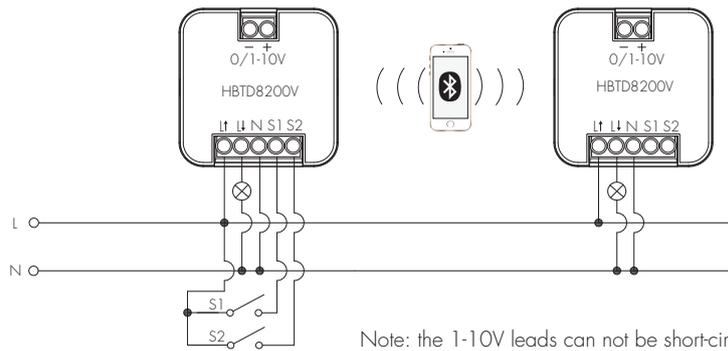
Trailing Edge Version
HBTD8200T (/F)

L N S1 S2
L
N
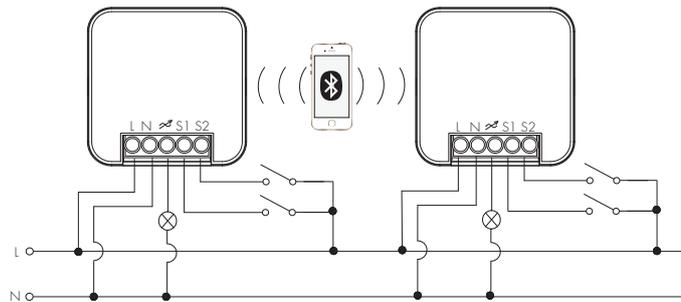
On/off Version
HBTD8200S (/F)

L↑ L↓ N S1 S2
L
N
S1
S2
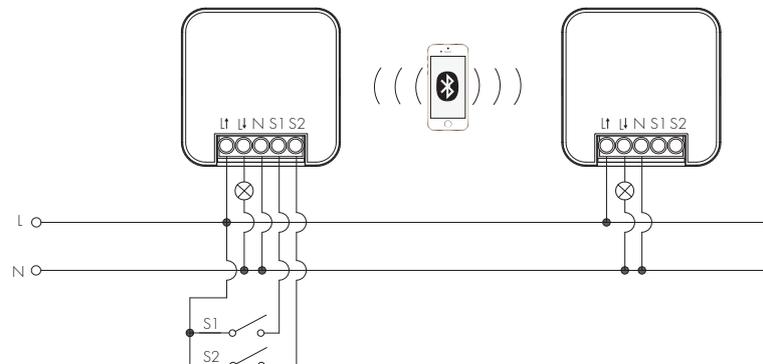
Technical Data For Transceiver Node (Common Data)

Bluetooth Transceiver	
Operation frequency	2.4 GHz - 2.483 GHz
Transmission power	7 dBm
Range (Typical indoor)	15~30m
Protocol	Bluetooth® 4 Wireless Mesh

Safety and EMC (Common Data)	
EMC standard (EMC)	EN55015, EN61547 EN62479, EN61000
Safety standard (LVD)	IEC/EN 61058, AS/NZS 61058
Radio Equipment (RED)	EN300 328, EN301 489, EN62479
Certification	Semko, CB, CE , EMC, RED, RCM

Input/Output Characteristics	
Mains voltage	220~240VAC 50/60Hz
Stand-by power	<0.5W
Load ratings: HBTD8200V (/F) HBTD8200D (/F) HBTD8200T (/F) HBTD8200S (/F)	300VA (capacitive), 400W (resistive) 100mA, 16VDC (max. 50 devices) 1-150VA (Capacitive) / 1-150W (Resistive) 300VA (Capacitive) / 400W (Resistive)

Environment	
Operation temperature	Ta: -20°C ~ +50°C
Case temperature (Max.)	Tc: +75°C
Storage temperature	-20°C ~ 50°C
Relative humidity	20 ~ 90%
IP rating	IP20
Insulation	Class II

Placement Guide and Typical Range

Network Considerations:
The recommended maximum distance between dimmers is 15m - 30m. Please be aware that building materials such as concrete and sheet steel will effect the range achievable when installed.

Other forms of interference which may affect the range include WiFi routers, microwave ovens and other such sources which emit strong signals should be taken into consideration when installing.
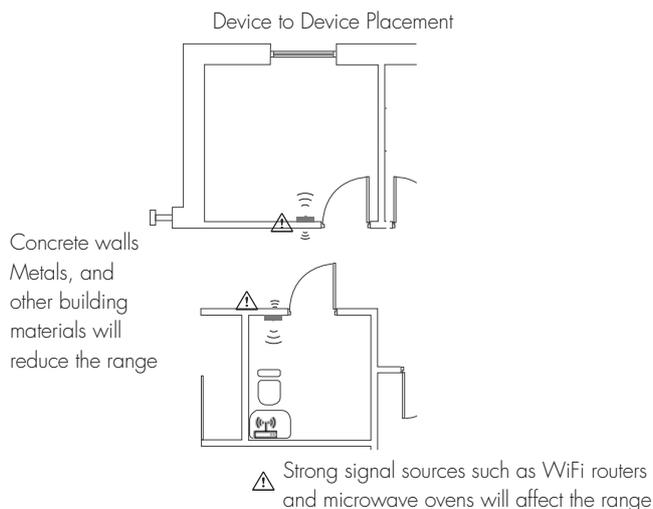
The smart device with the App installed will have a typical range of 10m, but varies from device to device. During commissioning, the installer will need to be in range of the devices when searching for devices to add to the network.

Once the devices have been added to the network via the App, the devices will start communicating within the wireless mesh. This means that once the network is complete, all devices are accessible from the smart device when in a 10m range of a single point.

Device to Device Placement

Concrete walls Metals, and other building materials will reduce the range

⚠ Strong signal sources such as WiFi routers and microwave ovens will affect the range

Smart Phone to Device Range

6-10m   >10m
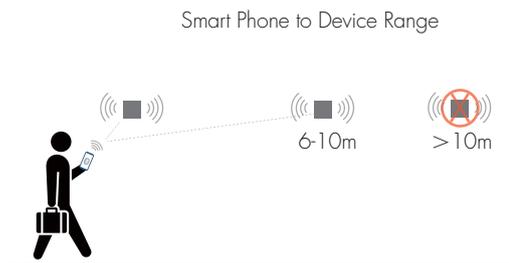
Manual Override (S1 & S2 terminals)

The Switch-Dim terminal reserves the access of manual override function for the end-user to switch on/off, or adjust the light level by push-switch. Furthermore, by using the binding option in the App, entire groups of fixtures may be wirelessly controlled by a single switch. Please refer to the App user guide for further information.

* Short Push (<1s): permanent on/off function; can also be configured to recall scene selection.
* Long Push (>1s): Brightness level adjustment or color tuning (color tuning for DALI version only).
* Long Push (>1s) for HBTD8200S (/F) only:
    1. Previous state: ON -> long push -> ON
       Previous state: OFF -> long push -> ON
    2. When binding with Hytronik other bluetooth devices, the lights bound will be dimmed and colour tuning.

Notes:

1) Both the adjustment on App and push switch can overwrite each other, the last adjustment remains in memory.

2) The switch functions are configured in the App.

3) The S1 & S2 terminals may be left unconnected if no manual control is required.