HYTRONIK HBEM8200D-F Built-in DALI-to Bluetooth Converter-Translator Module Instruction Manual

HYTRONIK HBEM8200D-F Built-in DALI-to Bluetooth Converter-Translator Module

Contents

Product Description

HBEM8200D/F is a DALI/Bluetooth convertor, which converts a standard DALI/DALI2 emergency driver output to Bluetooth output, so that user can view, edit and manage the emergency system though high-end Koolmesh platform. User can then enjoy all the powerful and convenient features in Koolmesh platform, such as scheduling a monthly self test or annually self test in the app, checking the DALI/DALI2 emergency drivers' status, including

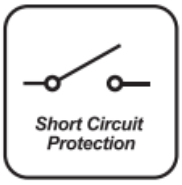
automatic email notication upon detecting fault, automatic monthly/yearly (functional/duration test) emergency report generation etc. All the settings and parameters can be set in both Koolmesh app and Koolmesh IOT platform.

App Features

	Floorplan feature to simplify project planning
	Grouping luminaires via mesh network
	Scenes
	Push switch con-guration
	Schedule to run scenes based on time and date
	Astro timer (sunrise and sunset)
	Device -rmware update over-the-air (OTA)

	Power-on status (memory against power loss)
	Ofine 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

	l00mA DALI broadcast output for up to 50 LED drivers
	Compact design
	2 Push inputs for flexible manual control
	Short-circuit protection
	Overload protection
	5-year warranty

EnOcean
Self-powered IoT

Fully support EnOcean self-powered switch module PTM2 l 5B (HBES0 1 /W & HBES0 1 /B)

Bluetooth 5.0 SIG mesh	
HYTRONIK Koolmesh iOS Android	for iOS for Android
Smartphone app for both iOS & Android platform	

	for iPad
Koolmesh Pro app for iPad	
 Web	for Web
Web opp/platform: www.iot.koolmesh.com	

Note:

Point to Point Control: l pc HBEM8200D/F convertor for l pc 3rd party DALI/DALI2 emergency driver.
Remote Control and Monitoring: with Bluetooth gateway HBGWOl, users can remotely control and monitor emergency system via Koolmesh mobile/tablet opp & web opp platform.

HBEM8200D/F & 3rd Party standard DALI/DALI2 emergency driver does not need to connect to central DALI PSU.
HBEM8200D/F provides power supply to the 3rd party standard DALI/DALI2 emergency driver.

Technical Specifications

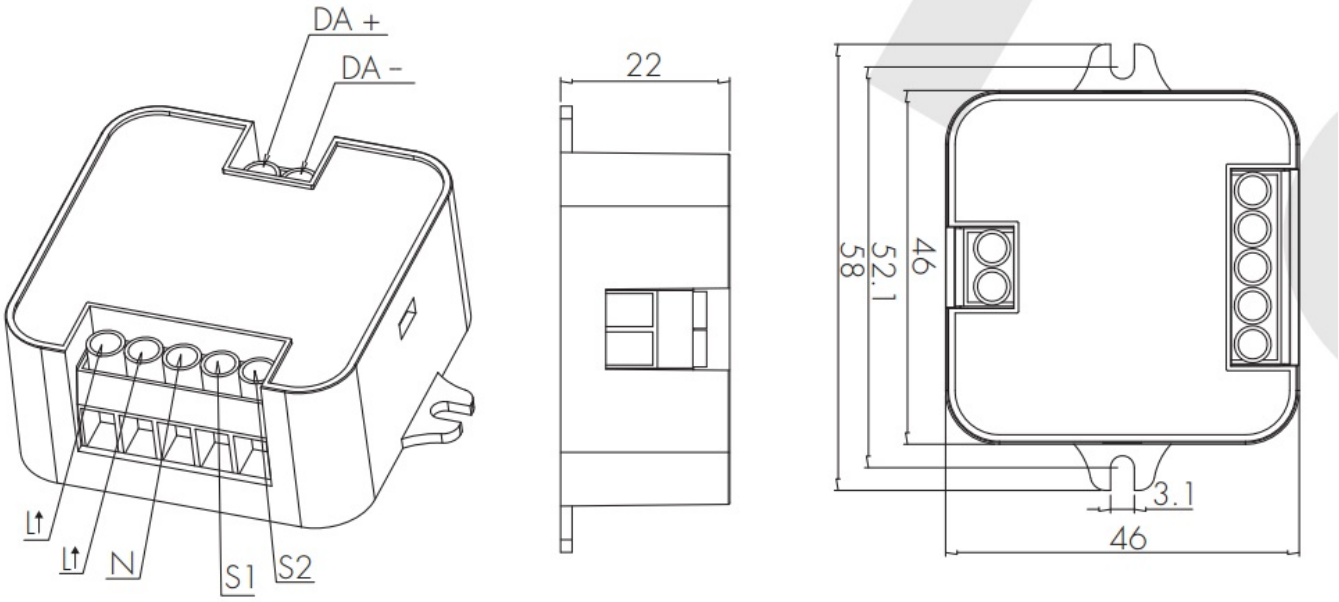
Bluetooth Transceiver	
Operation frequency	2.4 GHz 2.483 GHz
Transmission power	4 dBm
Range (Typical indoor)	l0~30m
Protocol	Bluetooth ” 5.0 SIG Mesh

Environment	
Operation temperature	Ta: -20°C – +50°C
Case temperature (Max.)	Tc : +75°C
Storage temperature	20°c ~ 60°C
Relative humidity	20 ~ 90%
IP rating	IP20
Insulation	Class II

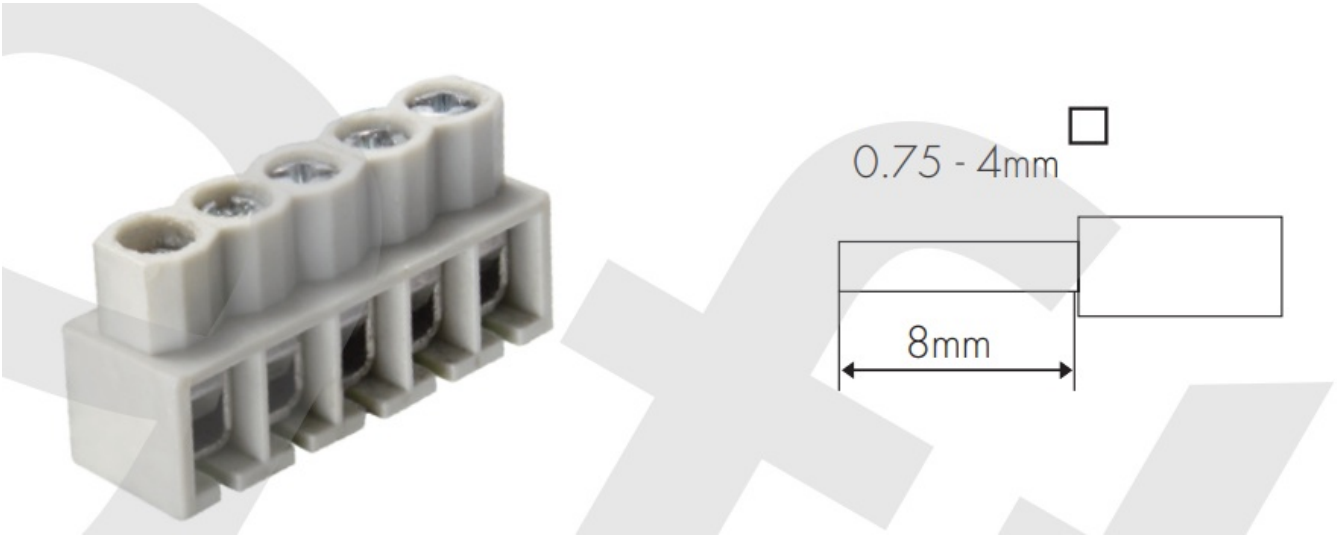
Input & output Characteristics	
Operating voltage	220 240VAC 50 / 60 Hz
Load rating	100mA, l 6VDC (max. 50 devices)

Safety & EMC	
EN55015, EN6 l 547	EMC standard (EMC)
Safety standard (LVD)	EN62479, EN6 l 000
Radio Equipment (RED)	IEC/EN 61058, AS/NZS 61058
EN301489- l /-17, EN62479	EN300 328,
Semko, CB, CE, EMC, RED, RCM	Certification

Mechanical Structure & Dimensions



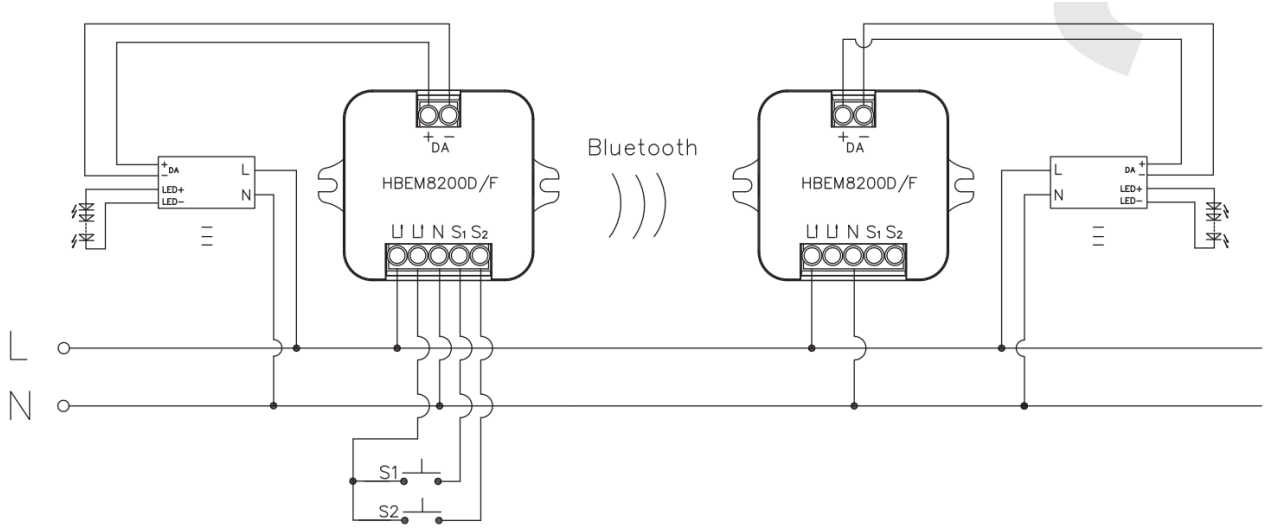
Wire Preparation



To make or release the wire from the termin al, use a screwd river to push down the button.

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

Wiring Diagram



Normal Mode
It is the mode in which mains supply is available, with the battery charged or charging. In this mooe, HBEM8200D/F is a standard Bluetooth dimmer with DALI broadcasting function, also with ability to create scenes and controllable by motion sensor, Push switch, schedules and opp.

Emergency Mode
It is the mode in which mains supply hos foiled and whilst the control gear is pcwered by the battery until deep discharge point. In this mode,
HBEM8200D/F is unable to be controlled by motion sensor, Push switch, schedules and opp. However, some emergency parameters con still be conjured via the opp. such as time scheduled for self-test, duration for extended emergency mode etc.

Rest Mode
It's the mode in which the luminoires ore intentionally off whilst the control gear is powered by the battery. To enter this mooe, the prerequisite is that there is no mains supply. In this mode, the luminoires will be turned off automatically and HBEM8200D/F is powered by the battery. If the luminoires ore forced to turn on in this mode, HBEM8200D/F will then be adjusted to emergency mode. When mains supply is recovered, HBEM8200D/F will return to normal mode.

Inhibit Mode
It is the mode in which HBEM8200D/F is powered from mains but prevented from going into emergency mode in the event mains failure. Please enter this mode only in special applications whereby emergency functions is not needed, such as when electricians need to cut off power supply when doing examinations and maintenance work of HBEM8200D/F.

Extended Emergency Mode
It is the mode in which the control gear continues to operate the luminoires in the some way as in emergency mode for the programmed prolong time ofter the restorations of the mains supply. When this mooe is enabled, HBEM8200D/F will remain in emergency mode even when mains supply is recovered. In this mooe, the user must set the time extended for emergency mode; when the time extended elapses, HBEM8200D/F will return to normal mooe.

Self test (Monthly)
HBEM8200D/F carries out routine test on emergency lighting based on pre-programmed time via the opp & web opp ploform or ofter receiving manual commands from the opp & web opp platform. During the self test process, tests for load connections (such as open circuit, short-circuit) and battery connections (such as open circuit, short-circuit, polarity reversal etc.) will be carried out.
All the DALI emergency drivers Self Test feedbacks. results and related Events (Such as the open circuit and short circuit of the load connection, open circuit and short circuit for battery connection) ore generated by the driver itself. the HBEM8200D/F convertor will only retrieve the data from the emergency driver and translate the DALI

feedback into Bluetooth Mesh data correctly and accurately and display to the end user interface (App and Web opp Platform). It will not contain any Emergency Self Test circuit in the products itself.

Self test (Annually)
The test is carried out mainly to check the battery level. The user must make sure that the battery for DALI emergency driver is fully charged before HBEM8200D/F carries out annual test. Also, the battery lifetime statistics will be analysed and displayed on a chart basis.

Push switch function
Users con connect Push switch to HBEM8200D/F to achieve multiple functions such as manually trigger monthly self test, annually self test, invalid and back to normal mode. Those options con be selected in Koolmesh opp Push swich settings.

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 con be set on Kool mesh opp.

Switch Function	Action	Descriptions
Push switch	Short press [< l second) • Short press has to be longer than 0. ls, 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 (::> l second)	• Dimming • Colour tuning • Do nothing
Sensor-link	/	• Upgrade a normal on/off motion sensor to a Bluetooth controlled motio n sensor

Emergency Self-Test Function	Short press [< I second) • Short press hos to be longer than 0. Is, or it will be invalid.	• Start Self • Stop Self test [Monthly) test • Start Self • Invalid test [Annually)
	long press (::> I second)	• Start Self test [Monthly) • Stop Self test • Start Self test [Annually) Invalid
Fire Alarm [VFC signal only)	Refer to ***Ifaalmesh"App*** User Manual V2.	• 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), ofter the fire alarm system gives the ending signal, all the luminaries controlled by this Push Switch will revert bock to normal status.

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
2. Regarding precautions for Bluetooth product installation and operation, please kindly refer to **wwwhytronik.com/download** ->knowledge ->Bluetooth Products – Precautions for Product Installation and Operation
3. Data sheet is subject to change without notice. Please always refer to the most recent release on **www.hytronik.com/products/bluetooth** technology->DALI-to Bluetooth Converter/Translator Module
4. Regarding Hytronik standard guarantee policy, please refer to **wwwhytronik.com/download** ->knowledge ->Hytronik Standard Guarantee Policy

HYTRONIK ®

Documents / Resources

	**HYTRONIK HBEM8200D-F Built-in DALI-to Bluetooth Converter-Translator Module** [pdf] Instruction Manual HBEM8200D-F, HBIR29, HCD038-BT, HBEM8200D-F Built-in DALI-to Bluetooth Converter-Translator Module, HBEM8200D-F, Built-in DALI-to Bluetooth Converter-Translator Module, Blueto oth Converter-Translator Module, Converter-Translator Module, Translator Module, Module

References

- iot.koolmesh.com