HYTRONIK ®
SENSORS & LIGHTING CONTROL

Koolmesh ®
— TAILOR MAKE YOUR SOLUTION

Bluetooth ®
Emergency Lighting Solution
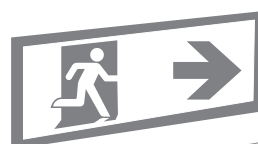
2026

Website: www.hytronik.com

Safer Buildings

Smarter Testing

Simpler Maintenance

- Hytronik Emergency LED Drivers and Inverters provide reliable safety, smart control, and effortless operation—keeping you protected anytime, anywhere.

- Emergency lighting with exit signs is present in nearly all public spaces. It plays a vital role in ensuring safe and orderly evacuation during emergencies. When every second counts, your lighting must perform flawlessly.

Two Solution Levels for Different Project Needs

One Promise: Safety, Compliance and Reliability

Emergency working mode:

| Normal | Emergency | Rest | Inhibit | Extended Emergency |

◼ Advanced Version

For large-scale or critical installations requiring predictive maintenance, sensor integration and smart monitoring.

+

| HF | PIR+IP65 | PIR | PIR | HF/PIR + Omni-directional |

◼ Standard / Economic Version

For cost-sensitive or standard projects delivering reliable emergency lighting with minimal complexity.

How Does Hytronik Simplify Emergency Lighting?

■ **Smarter design**　　■ **Easier testing**　　■ **Lower maintenance effort**

Battery Life Prediction: Proactively know when batteries need replacement, avoiding downtime.

Wireless Monitoring: Bluetooth & DALI compatibility for effortless system management. Always know the health status of your emergency lighting.

Flexible Integration: Works with occupancy, daylight, and circadian sensors for intelligent building automation.

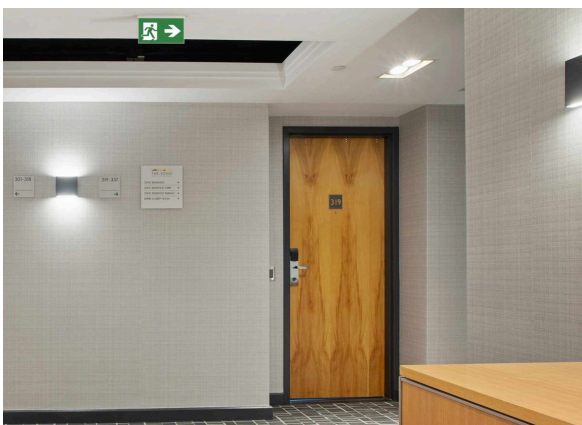**Retrofittable:** Upgrade old systems without disruption.
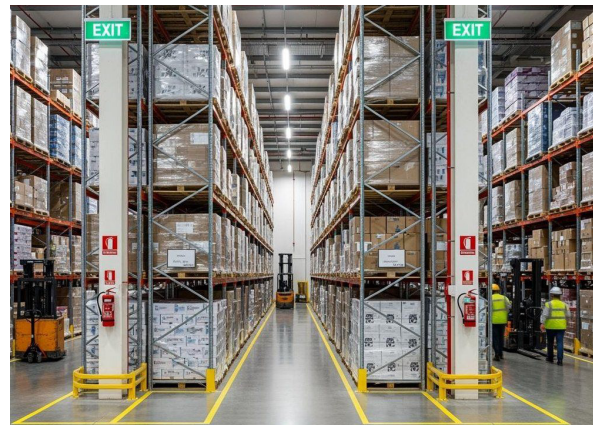
Main Applications

Commercial Buildings

Healthcare Facilities

Schools & Universities

Industrial Sites

Our Featured Products

Combo Drivers (3-in-1)
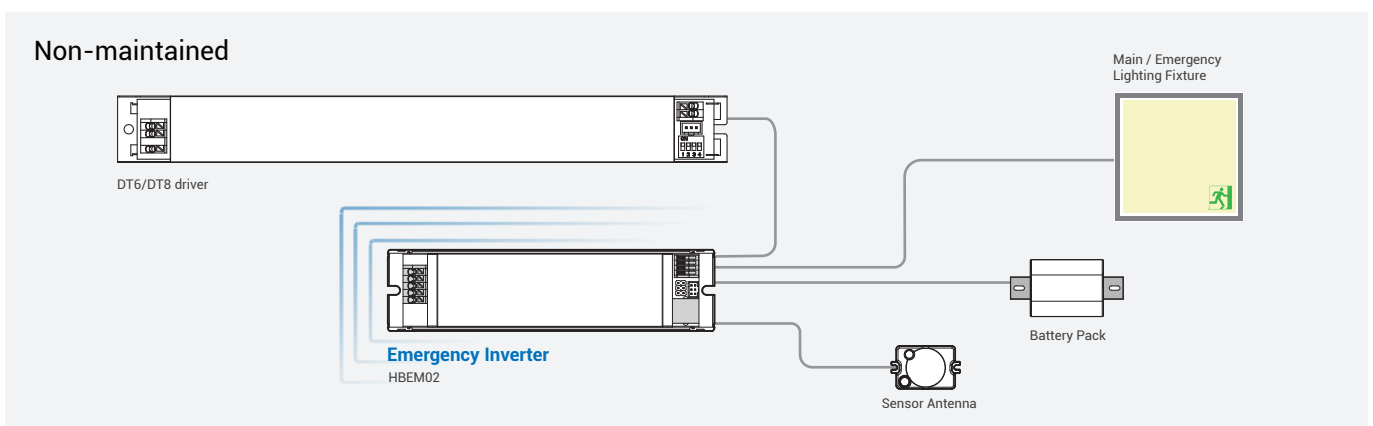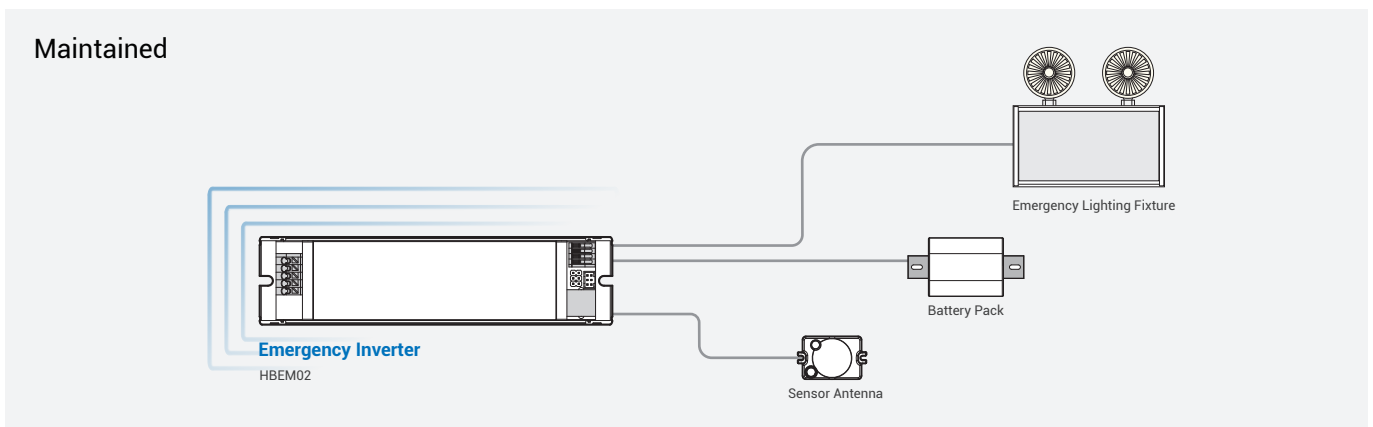
Driver, emergency inverter, and sensor in one unit.

- Economic: cost-efficient basic emergency operation
- Advanced: sensor head integration + predictive battery monitoring

Sensor Antenna

Battery Pack

Emergency Driver
HBEM03

Main / Emergency Lighting Fixture
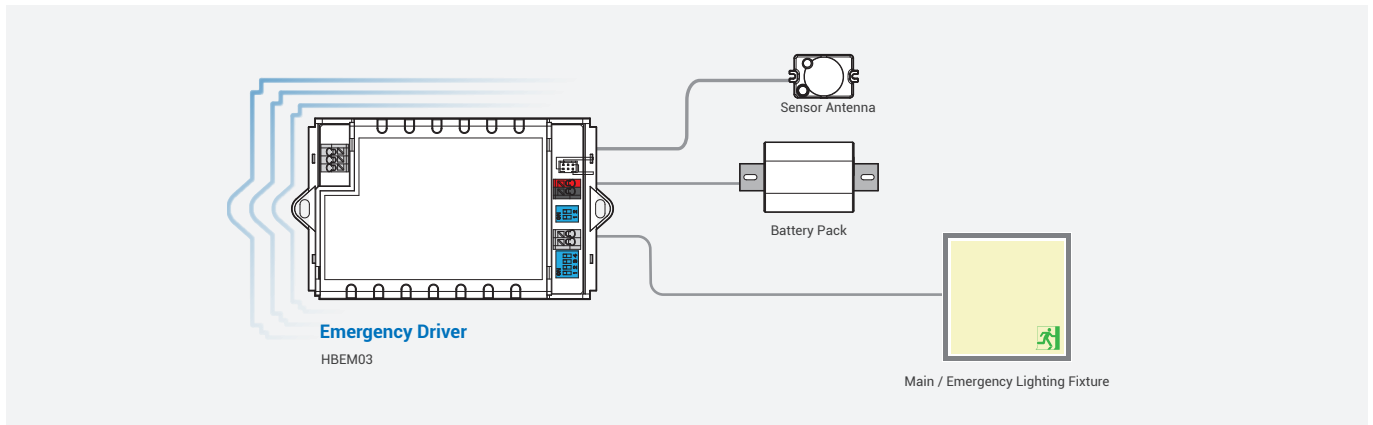
Emergency Inverter

Standalone retrofit units for luminaires without emergency.

- Economic: reliable, cost-efficient emergency power
- Advanced: smart monitoring & sensor integration

Maintained

Emergency Lighting Fixture

Battery Pack

Emergency Inverter
HBEM02

Sensor Antenna

Non-maintained

Main / Emergency
Lighting Fixture

DT6/DT8 driver

Emergency Inverter
HBEM02

Battery Pack

Sensor Antenna

Emergency Sign Maintained

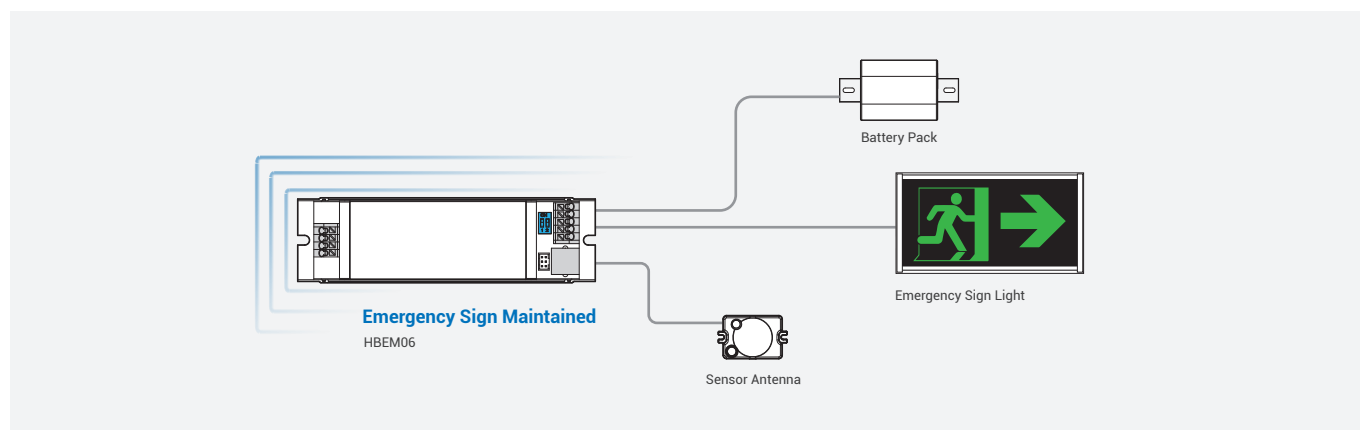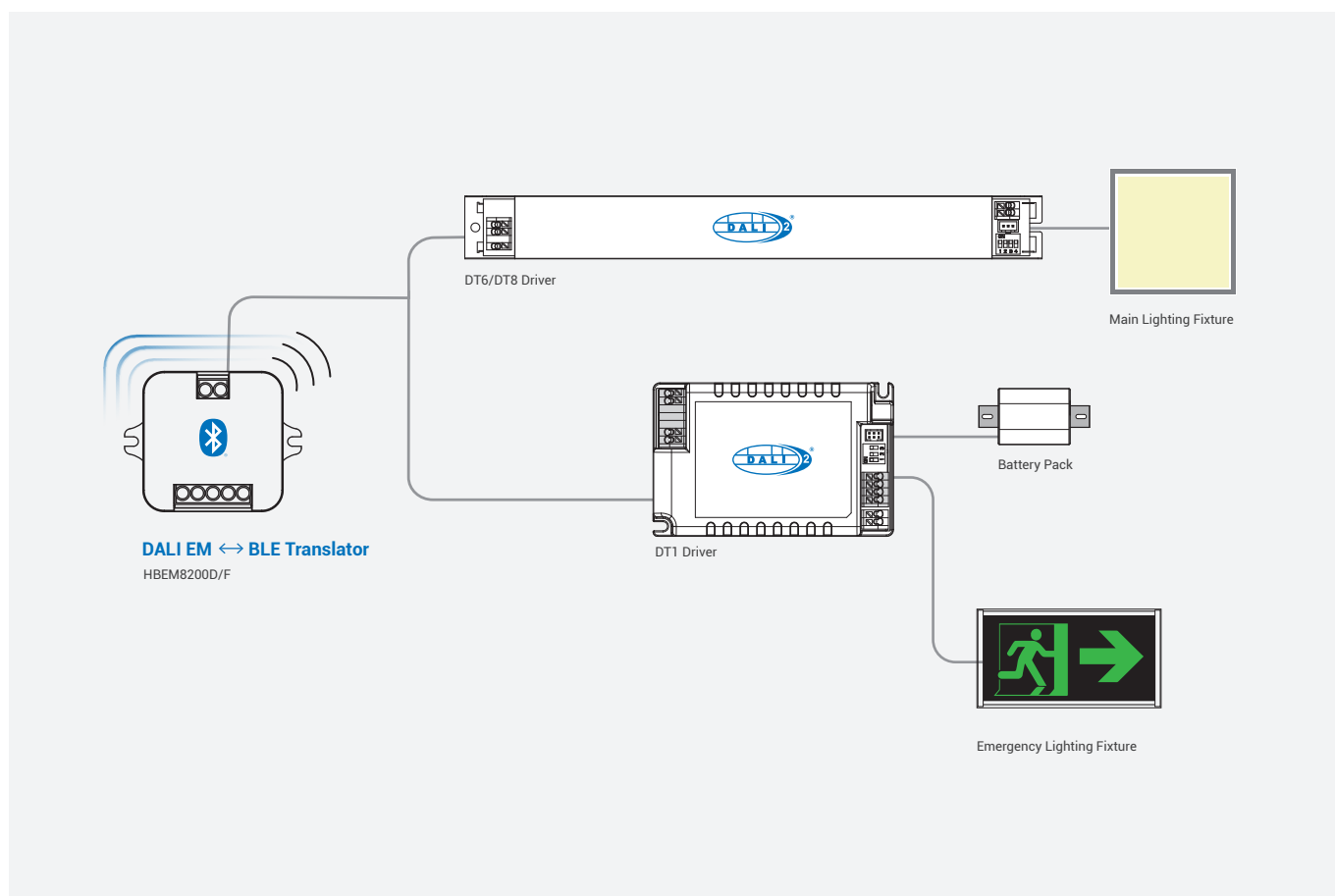## Keep exit signs illuminated and compliant during emergencies.

- Economic: reliable, cost-efficient emergency power
- Advanced: smart monitoring & sensor integration

Battery Pack

Emergency Sign Maintained
HBEM06

Emergency Sign Light

Sensor Antenna

DALI EM ↔ BLE Translator

Upgrade any DALI emergency system to wireless mesh for remote monitoring & predictive maintenance.

DT6/DT8 Driver

Main Lighting Fixture

DALI EM ↔ BLE Translator
HBEM8200D/F

DT1 Driver

Battery Pack

Emergency Lighting Fixture

Overview
Emergency Combo Driver 3-in-1

(Mains-driver & Inverter & Plug-and-play motion sensor)

Designation	Input Voltage / Current	Uout max.	Output Power / Current / Voltage range	Emergency Output Power / Current / Voltage range	Dimensions (L x W x H mm)	LED indicator & Test switch	Optional Battery Pack
Max. 25W **HBEM01**	220~240VAC / 162-150mA	60V	8-17.5W / 350mA / 24-50V 12-25W / 500mA / 24-50V 16-25W / 700mA / 24-36V	2W / 85-40mA / 24-50V 3W / 125-60mA / 24-50V	108 x 69 x 22.2	√	BPC83 BPC84
Max. 40W **HBEM03**	220~240VAC / 240-220mA	60V	8-17.5W / 350mA / 24-50V 12-25W / 500mA / 24-50V 16-33.5W / 700mA / 24-48V 16-40.5W / 900mA / 24-45V 25-40W / 1050mA / 24-38V	2W / 85-40mA / 24-50V 3W / 125-60mA / 24-50V 4W / 160-80mA / 24-50V	140.7x 79.2 x 23	√	BPC83 BPC84

Emergency Inverter

(Inverter & Plug-and-play motion sensor)

Designation	Input Voltage / Current	Uout max.	Emergency Output Power / Current / Voltage range	Dimensions (L x W x H mm)	LED indicator & Test switch	Optional Battery Pack
HBEM02	220~240VAC / Max. 25mA	60V	2W / 85-40mA / 24-55V 3W / 125-60mA / 24-55V 4W / 160-80mA / 24-55V	160 x 39.7 x 21.3	√	BPC83 BPC84
HBEM04	220~240VAC / Max. 30mA	60V	2W / 85-40mA / 24-55V 3W / 125-60mA / 24-55V 4W / 160-80mA / 24-55V 5W / 200-100mA / 24-55V	108 x 69 x 22.2	√	BPC83 BPC84
HBEM05	220~240VAC / Max. 50mA	60V	6W / 250-100mA / 24-55V 8W / 330-145mA / 24-55V 10W / 415-180mA / 24-55V 12W / 500-220mA / 24-55V	108 x 69 x 22.2	√	BPC85

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Emergency Sign Maintained

Designation	Input Voltage / Current	Uout max.	Output Power / Current / Voltage range	Emergency Output Power / Current / Voltage range	Dimensions (L x W x H mm)	LED indicator & Test switch	Optional Battery Pack
NEW Max. 4W HBEM06	220~240VAC Max. 25mA	15V	1W/2W/4W	1W / 330-125mA / 3-8V 2W / 650-250mA / 3-8V 4W / 1300-500mA / 3-8V	139 × 39.7 × 21.3	√	BPC81 BPC83 BPC84

+ 6 options above free combination of (Total of 15 plug - and - play sensor antennas)

① Modular Design	② Universal Adaptability	③ Multi-Sensor Fusion	④ Easy Combination
Emergency driver & inverter + compact sensor head	HF/PIR, IP20-IP65, low/high-bay	Motion + daylight in ultra-mini size	RJ12 Plug-and-Play connectivity

HF

SAM20	SAM23	SAM21	SAM22	SAM22/AA

PIR

HIR11/C	HIR11/F	HIR12	HIR07	HIR05
HIR05/FM	HIR63	HIR63/R	HIR11/AA	HIR11/S

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Bluetooth ⟷ DALI Emergency Translator

Designation	Input Voltage	Output	Dimensions (L x W x H mm)	Switch-Dim	Connective to Sensor
HBEM8200D/F	220~240VAC	DALI/DALI-2 Max. 100mA	58 x 46 x 18	√	/
HBEM038	220~240VAC	DALI/DALI-2 30mA Power Supply (PSU)	120 x 30 x 21	√	√
HBEM049	220~240VAC	DALI/DALI-2 I max. 50mA	128 x 29 x 34	√	/
HBIREM29 Series	220~240VAC	DALI/DALI-2 I max. 80mA	79.2 x 62.2 x 62.2	√	/

Battery Pack

Designation	Battery Type	Specification	Dimensions (L x W x H mm)	Recharge Time
BPC83	LiFePO4	6.4V, 3.6Ah	105 x 53 x 27.5	24h
BPC84	LiFePO4	6.4V, 3.6Ah	174.8 x 26.5 x 29	24h
BPC85	LiFePO4	12.8V, 3.6Ah	100 x 56.5 x 66.5	24h

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Emergency Combo Driver 3-in-1

(Mains-driver & Inverter & Plug-and-play motion sensor)

| Max. 25W(CC) Main Output | | Max. 3W EM Output |

CC ⁂

HBEM01

Key Benefits

- Self -contained Emergency & LED drivers combination with self-test function
- Non-maintained and maintained operations
- Mains & Emergency output (2W/3W) selection via DIP switch
- Dimmable via switch-dim or Koolmesh app in maintaining mode
- Plug-and-play sensor with Photocell AdvanceTM technology for daylight &motion detection
- Active PFC design
- Abnormal pro-tection for short-circuit, overload and open-circuit
- SELV classified (indicator LED, battery pack, test switch)
- Customized manual test switch (single press, long press)
- 5 year design life for battery (up to 30°Cambient temperature)
- Battery Life Prediction and abnormal protection
- Wireless scheduling of monthly and annual EM tests via Koolmesh app
- Ideal for main lighting fixtures with emergency function requirements

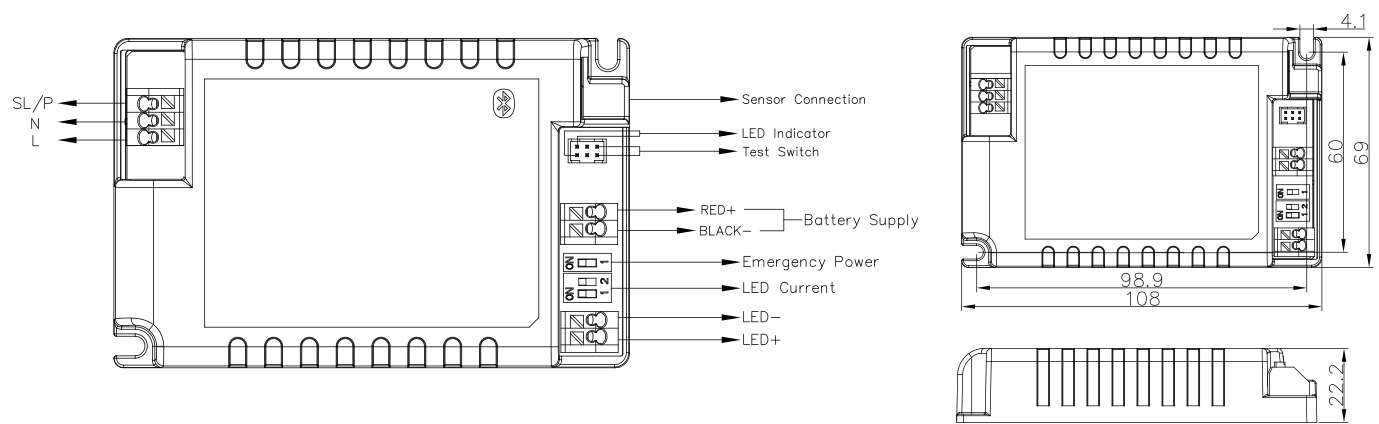## Where it Fits

Bulkhead
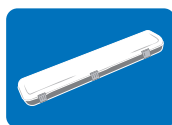
Tri-proof

Technical Specifications

Designation	Output Voltage (Uout Max.)	Power Factor	Main Output Power / Current / Voltage Range
HBEM01	60V	>0.9	8-17.5W / 350mA / 24-50V 12-25W / 500mA / 24-50V 16-25W / 700mA / 24-36V

Input Current	Input Voltage	Efficiency	In-rush Current (Imax.) Pulse Time	Emergency Output Power / Current / Voltage Range
162~150mA	220-240 VAC	85% (max.)	21A / 80 µs	2W / 85-40mA / 24-50V 3W / 125-60mA / 24-50V

Optional Battery Pack		Discharge Current	Charge Current	Max. Load / Discharge Hour
BPC83	BPC84	6.4V, 3.6AH	0-500mA	0.4A, 2W@24 - 50V / 3H 0.56A, 3W@24 - 50V / 3H

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Mechanical Structure (unit: mm)

SL/P
N
L

Sensor Connection

LED Indicator
Test Switch

RED+
BLACK−

Battery Supply

Emergency Power
LED Current
LED−
LED+

4.1

60
69

98.9
108

22.2

Wiring Diagram

L   N

SL/P
N
L

Sensor Dim connection

GRE&RED

LED −
LED +

+

−

Battery(6.4V LiFePO4)
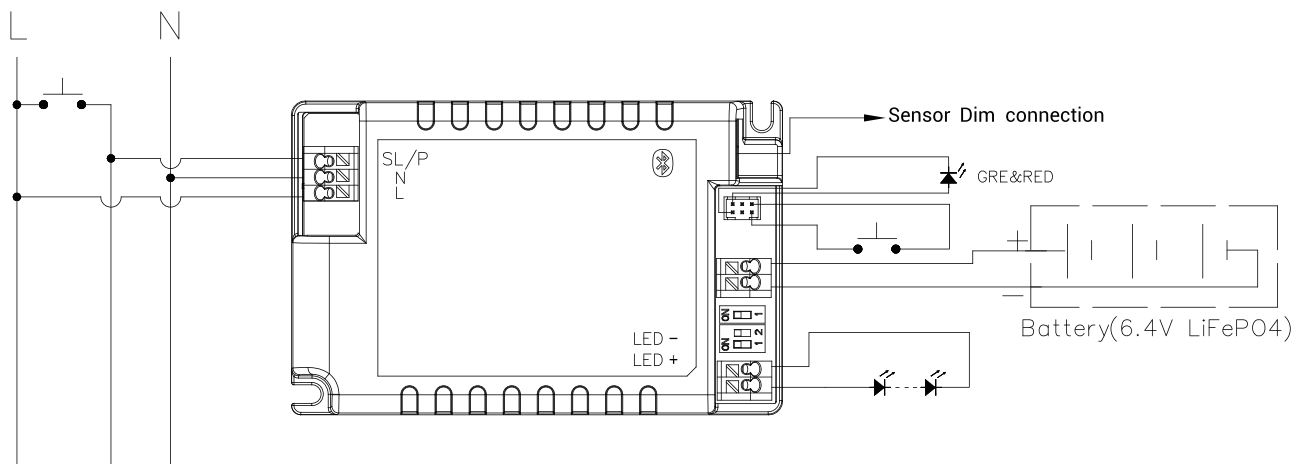
Emergency Combo Driver 3-in-1

(Mains-driver & Inverter & Plug-and-play motion sensor)

Max. 40W(CC) Main Output   **Max. 4W EM Output**

CC 🅱

HBEM03

Key Benefits

- Self-contained Emergency &LED drivers combination with self-test function
- Non-maintained and maintained operations
- Mains & Emergency output (2W/3W/4W) selection via DIP switch
- Dimmable via switch-dim or Koolmesh app in maintaining mode
- Plug-and-play sensor with Photocell Advance technology for daylight &motion detection
- Active PFC design
- Abnormal protection for short-circuit, overload and open-circuit
- SELV classifled (LED Indicator, battery, test switch)
- Customized manual test switch (single press, long press)
- 5 year design life for batterry (up to 30°Cambient temperature)
- Battery Life Prediction and abnormal protection
- Enables Wireless scheduling of monthly and annual EM tests via Koolmesh app
- Ideal for main lighting fixtures with emergency function requirements
- Provide insulating cover accessories for standalone installation

Where it Fits

LED Panel	Bulkhead	Tri-proof

Technical Specifications

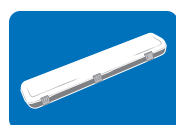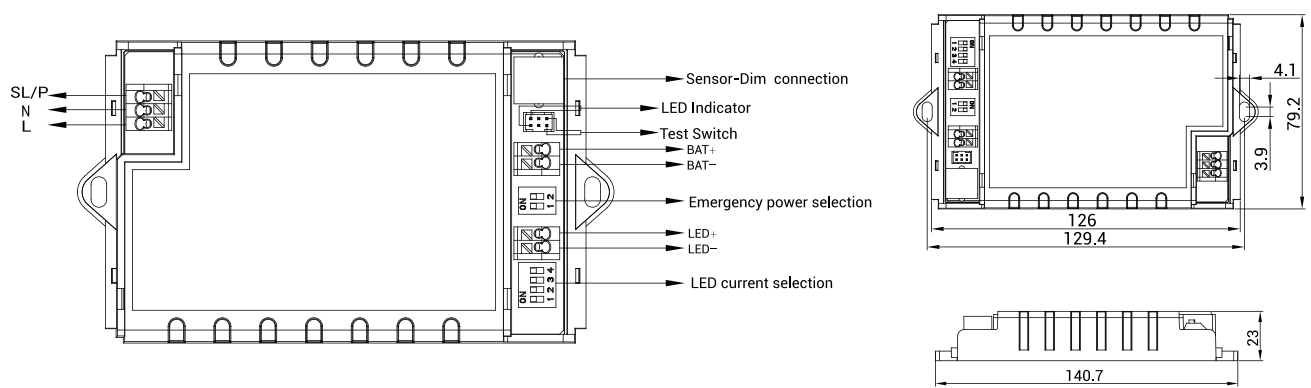| Designation	Input Voltage/ Input Current	Output Power	Output Power / Current / Voltage Range	Efficiency	Output Voltage (Uout Max.)	Emergency Output Power / Current / Voltage Range
HBEM03	220-240 VAC 240~220mA	40W (max.)	8-17.5W / 350mA / 24-50V 12-25W / 500mA / 24-50V 16-33.5W / 700mA / 24-48V 16-40.5W / 900mA / 24-45V 25-40W / 1050mA / 24-38V	88% (max.)	60V	2W / 85-40mA / 24-50V 3W / 125-60mA / 24-50V 4W / 160-80mA / 24-50V

Optional Battery Pack		Discharge Current	Charge Current	Max. Load / Discharge Hour
BPC83	BPC84	6.4V, 3.6AH	0-500mA	0.4A, 2W@24 - 50V / 3H 0.56A, 3W@24 - 50V / 3H 0.8A, 4W@24-50V / 3H

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Mechanical Structure (unit: mm)

SL/P
N
L

Sensor-Dim connection
LED Indicator
Test Switch
BAT+
BAT−
Emergency power selection
LED+
LED−
LED current selection

ON 1 2
ON 1 2 3 4

4.1
79.2
3.9
126
129.4
23
140.7

Wiring Diagram

L   N

SL/P
N
L

BAT+
BAT−

LED+
LED−

Sensor-Dim connection
GRE&RED
Test Switch

Battery (6.4V/3.4A LiFeP04)
Emergency power selection

LED current selection

ON 1 2
ON 1 2 3 4

Compatible Plug-and-play Sensor Antenna

HF

| SAM20 | SAM23 | SAM21 | SAM22 | SAM22/AA |

PIR

| HIR05 | HIR05/FM | HIR63 | HIR63/R | HIR11/AA | HIR11/S | HIR11/C | HIR11/F | HIR12 | HIR07 |

*Please always check the latest datasheet for technical requirements--------http://hytronik.com
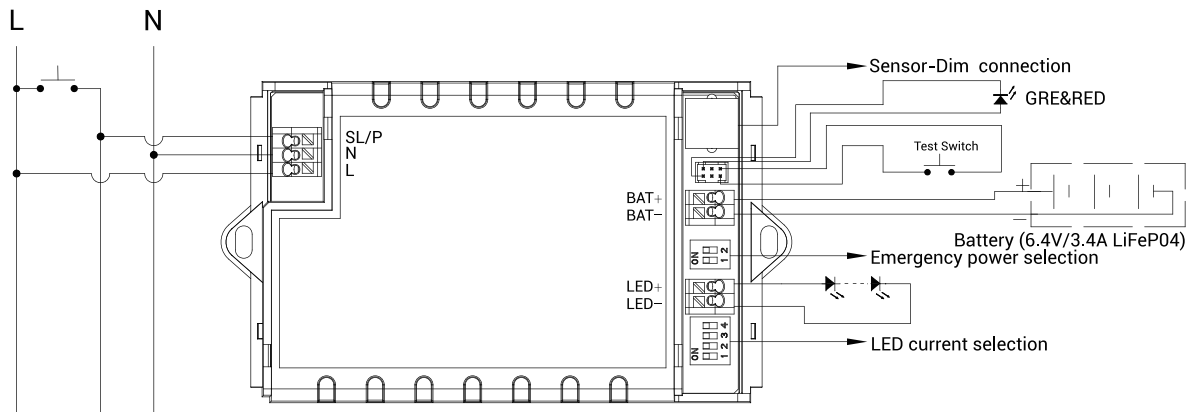
Emergency Inverter

(Inverter & Plug-and-play motion sensor)

| Max. 4W EM Output | For ON/OFF Drivers |

HBEM02

Key Benefits

- Self - contained Emergency with self -test function
- EM power selection via DIP switch(2W/3W)
- Plug-and-play sensor with Photocell Advance™ technology for daylight & motion detection
- Abnormal protection for short-circuit, overload and over-heat
- SELV classified (LED indicator, battery, test switch)
- Customized manual test switch (single press, long press)
- 5 year design life for battery (up to 30°Cambient temperature)
- Battery Life Prediction and abnormal protection
- Wireless monthly and annual EM tests via Koolmesh app
- Designed for on/off control drivers
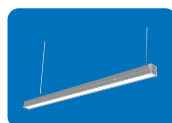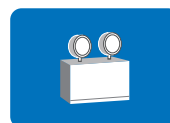- Add an emergency function to the main lighting fixtures

Where it Fits
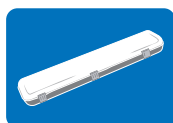
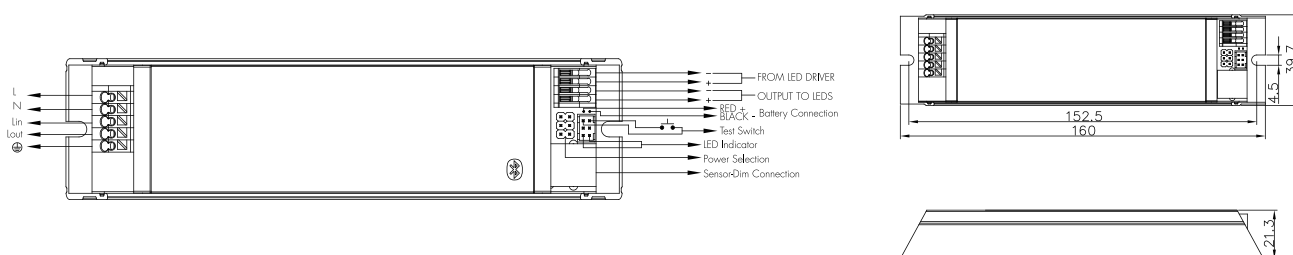| Bulkhead | Tri-proof | Pendant | Linear | Combination Emergency Light |

Technical Specifications

Designation	Input Voltage/ Input Current	Output Voltage(Uout)	In-rush Current (Imax.)/ Pulse Time	Emergency Output Power / Current / Voltage Range
HBEM02	220-240 VAC max. 25mA	60V (max.)	6A/120 µs	2W / 85-40mA / 24-55V 3W / 125-60mA / 24-55V 4W / 160-80mA / 24-55V

Optional Battery Pack		Discharge Current	Charge Current	Max. Load / Discharge Hour
BPC83	BPC84	6.4V, 3.6AH	0-500mA	0.45A, 2W@24 - 55V / 3H 0.65A, 3W@24 - 55V / 3H 0.85A, 4W@24 - 55V / 3H

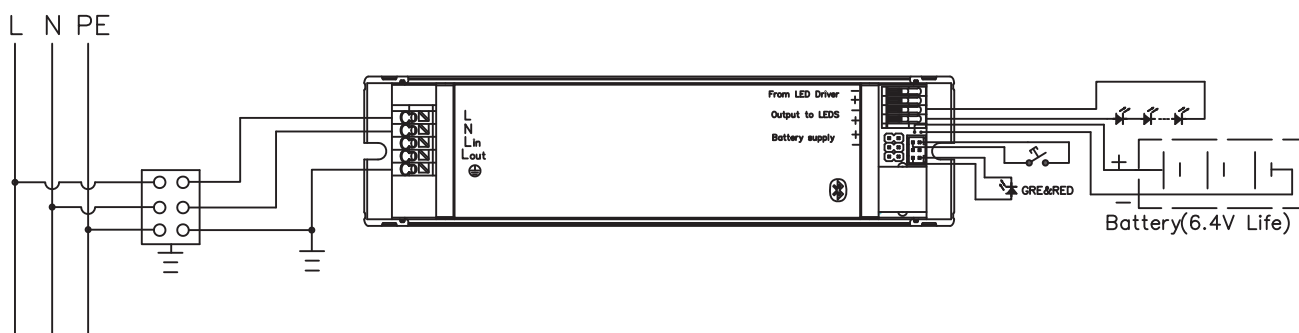*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Mechanical Structure (unit: mm)

L
N
Lin
Lout

FROM LED DRIVER
OUTPUT TO LEDS
RED +
BLACK - Battery Connection
Test Switch
LED Indicator
Power Selection
Sensor-Dim Connection

152.5
160
39.7
4.5
21.3

Wiring Diagram

Maintained

MAX. LED LOAD: 60V & 2A
*It could be any driver from Hytronik or the third party

ON
1 2 3 4

L1 L2 N PE

L
N
Lin
Lout

FROM LED DRIVER
OUTPUT TO LEDS

Battery supply

Green & Red
Sensor-Dim Connection

Battery (6.4v LiFePO4)

Non-maintained

L N PE

L
N
Lin
Lout

From LED Driver
Output to LEDS

Battery supply

GRE&RED

Battery(6.4V Life)

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

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Emergency Inverter

(Inverter & Plug-and-play motion sensor)

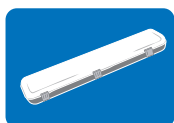**Max. 5W EM Output**   **For DALI Dimmable Drivers**

HBEM04

Key Benefits

- Self - contained Emergency with self -test function
- EM power selection via DIP switch(2W/3W/4W/5W)
- Plug-and-play sensor with Photocell Advance™ technology for daylight & motion detection
- Abnormal protection for short-circuit and over-heat
- Wireless monthly and annual EM tests via Koolmesh app
- SELV classified (LED indicator, battery, test switch)
- Customized manual test switch (single press, long press)
- 5 year design life for battery (up to 30°Cambient temperature)
- Battery Life Prediction and abnormal protection
- Designed for DALI dimmable drivers
- Add an emergency function to the main lighting fixtures

Where it Fits

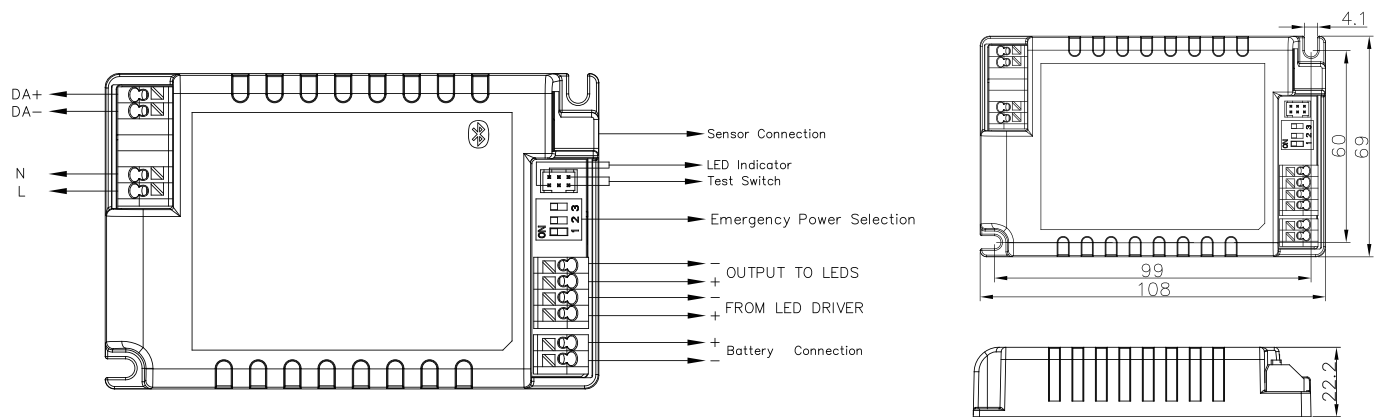Bulkhead   Tri-proof   Combination Emergency Light

Technical Specifications

Designation	Input Voltage/ Input Current	Output Voltage(Uout)	In-rush Current (Imax.)/ Pulse Time	Emergency Output Power / Current / Voltage Range
HBEM04	220-240 VAC max. 30mA	60V (max.)	25A/80μs	2W / 85-40mA / 24-55V 3W / 125-60mA / 24-55V 4W / 160-80mA / 24-55V 5W / 200-100mA / 24-55V

Optional Battery Pack		Discharge Current	Charge Current	Max. Load / Discharge Hour
BPC83	BPC84	6.4V, 3.6AH	0-500mA	0.45A,2W@24-55V/3H 0.65A,3W@24-55V/3H 0.85A,4W@24-55V/3H 1.05A,5W@24-55V/3H

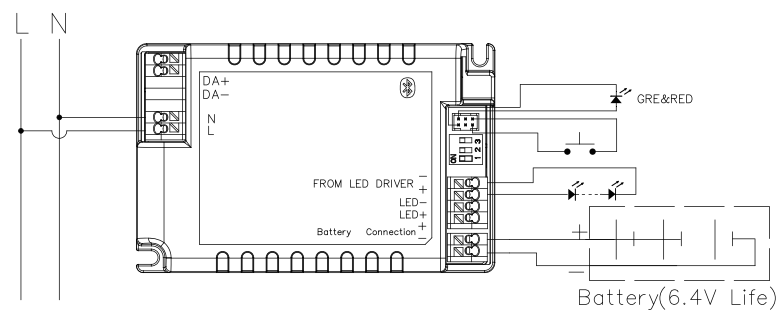*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Mechanical Structure (unit: mm)

DA+
DA−

N
L

Sensor Connection
LED Indicator
Test Switch
Emergency Power Selection
OUTPUT TO LEDS
FROM LED DRIVER
Battery Connection

4.1
60
69
99
108
22.2

Wiring Diagram

Maintained

DA+
DA−
N
L

Sensor-Dim Connection
GRE&RED

Battery(6.4V Life)

DALI−
DALI+
N
L

LED Driver

LED+
LED−

Non-maintained

L N

DA+
DA−
N
L

GRE&RED

FROM LED DRIVER
LED−
LED+
Battery Connection

Battery(6.4V Life)

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

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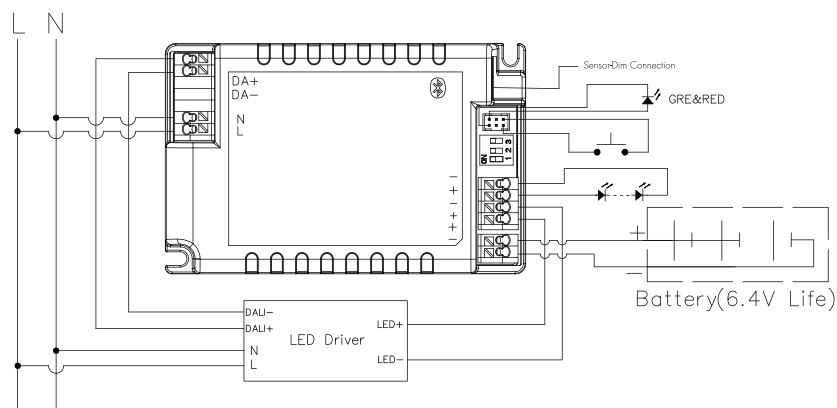
Emergency Inverter

(Inverter & Plug-and-play motion sensor)

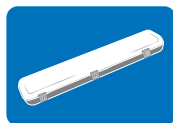| Max. 12W EM Output | For DALI Dimmable Drivers |

HBEM05

Key Benefits

- Self - contained Emergency with self -test function
- EM power selection via DIP switch((6W/8W/10W/12W))
- Plug-and-play sensor with Photocell Advance™ technology for daylight & motion detection
- Abnormal protection for short-circuit and over-heat
- Wireless monthly and annual EM tests via Koolmesh app
- SELV classified (LED indicator, battery, test switch)
- Customized manual test switch (single press, long press)
- 5 year design life for battery (up to 30°Cambient temperature)
- Battery Life Prediction and abnormal protection
- Designed for DALI dimmable drivers
- Add an emergency function to the main lighting fixtures

Where it Fits

Bulkhead
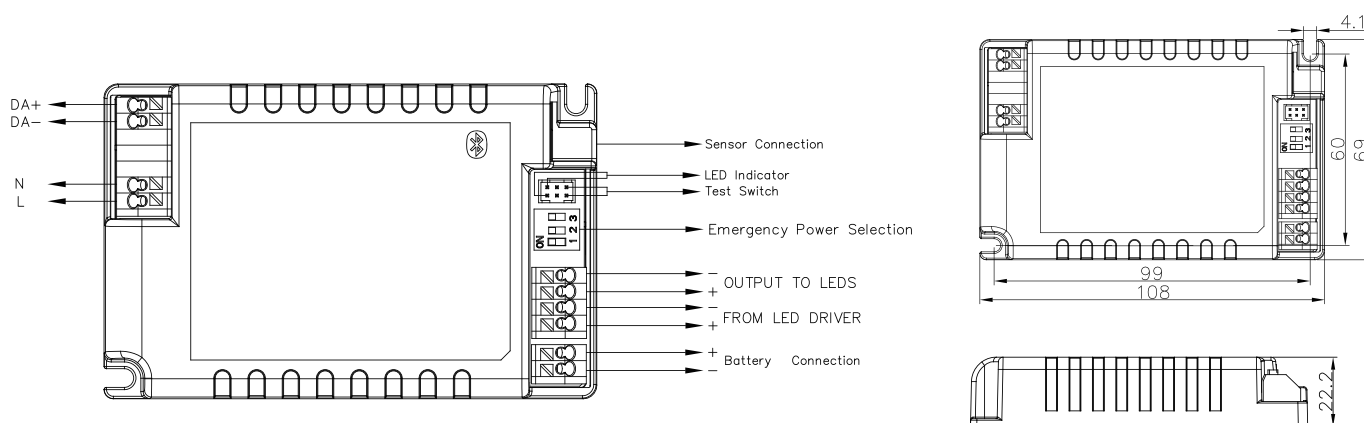
Tri-proof

Combination Emergency Light

Technical Specifications

Designation	Input Voltage/ Input Current	In-rush Current (Imax.)/ Pulse Time	Output Voltage(Uout)	Emergency Output Power / Current / Voltage Range
HBEM05	220-240 VAC max. 50mA	25A/80µs	60V (max.)	6W / 250-100mA / 24-55V 8W / 330-145mA / 24-55V 10W / 415-180mA / 24-55V 12W / 500-220mA / 24-55V

Optional Battery Pack	Discharge Current	Charge Current	Max. Load / Discharge Hour
BPC85	12.8V,3.6AH	0-500mA	0.6A,6W@24-55V/3H 0.8A,8W@24-55V/3H 1A,10W@24-55V/3H 1.2A,12W@24-55V/3H

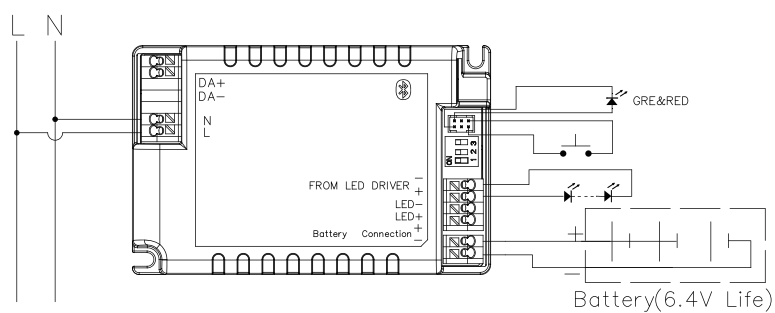*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Mechanical Structure (unit: mm)

DA+
DA−

N
L

Sensor Connection
LED Indicator
Test Switch
Emergency Power Selection
OUTPUT TO LEDS
FROM LED DRIVER
Battery Connection

4.1
60
69
99
108
22.2

Wiring Diagram

Maintained

L N

DA+
DA−
N
L

Sensor-Dim Connection
GRE&RED

Battery(6.4V Life)

DALI−
DALI+
N
L
LED Driver
LED+
LED−

Non-maintained

L N

DA+
DA−
N
L

GRE&RED

FROM LED DRIVER
LED−
LED+
Battery Connection

Battery(6.4V Life)

Compatible Plug-and-play Sensor Antenna

HF

| SAM20 | SAM23 | SAM21 | SAM22 | SAM22/AA |

PIR

| HIR05 | HIR05/FM | HIR63 | HIR63/R | HIR11/AA | HIR11/S | HIR11/C | HIR11/F | HIR12 | HIR07 |
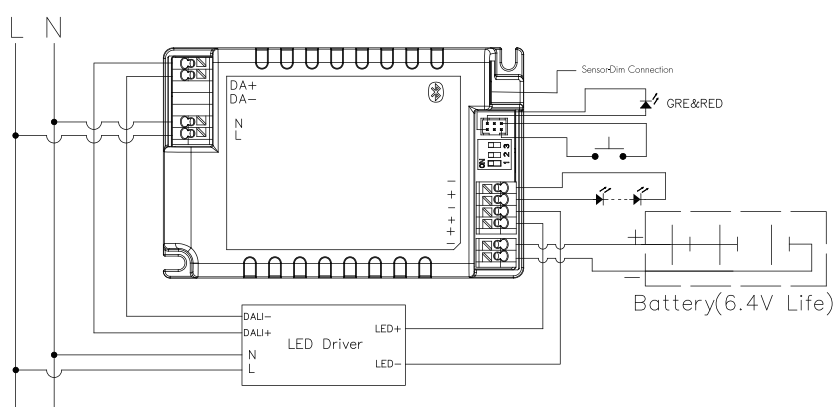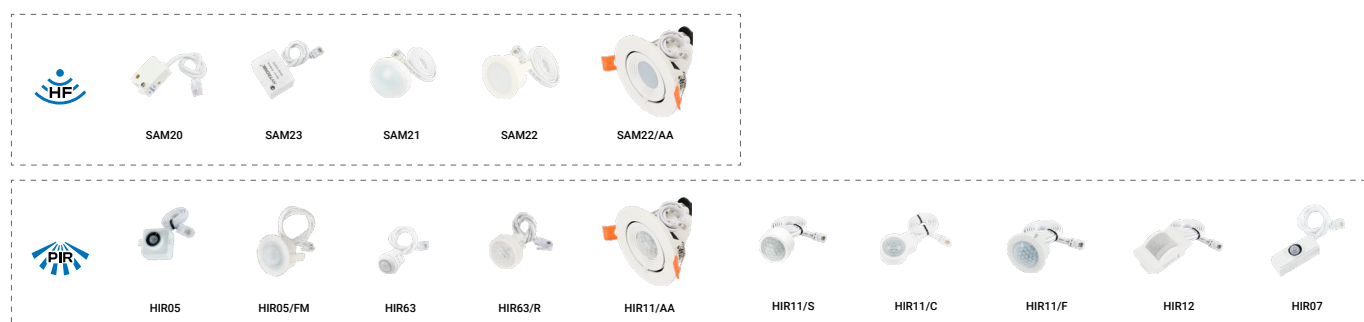
*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Emergency Sign Maintained

Maintain and non-maintain

Max. 4W Main & EM Output

NEW

HBEM06

Key Benefits

- Self - contained Emergency & LED drivers combination with self -test function
- Non-maintained and maintained operations
- Output selection via DIP switch
- 4W Low-Power Main Power supply
- Plug-and-play sensor with Photocell Advance™ technology for daylight &motion detection
- SELV classified (LED indicator, battery, test switch)
- Customized manual test switch (single press, long press)
- 5 year design life for battery (up to 30°Cambient temperature)
- Abnormal Prediction for short-circuit and over-heat
- Battery Life Prediction and abnormal protection
- Compact design suitable for Emergency Exit Sign light
- Compatible with 2-wire/3-wire battery packs with temp.protection

Where it Fits

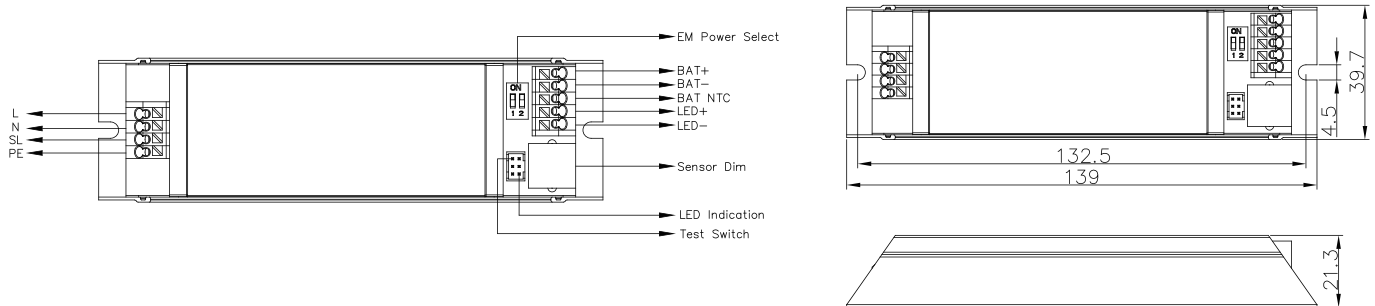Emergency Exit Sign Light

Combination Emergency Light

Technical Specifications

Designation	Input Voltage/ Input Current	Output Voltage(Uout)	Output Power	Output Power / Current / Voltage Range
HBEM06	220-240 VAC 50mA	15V (Max.)	1W/2W/4W	1W / 330-125mA / 3-8V 2W / 650-250mA / 3-8V 4W / 1300-500mA / 3-8V

Optional Battery Pack		Discharge Current	Charge Current	Max. Load / Discharge Hour
BPC81		6.4V/1.6AH	0-500mA	0.25A 1W @3-8V/3H
BPC83	BPC84	6.4V, 3.6AH	0-500mA	0.4A 2W @3-8V/3H 0.85A 4W @3-8V/3H

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Mechanical Structure (unit: mm)

EM Power Select
BAT+
BAT—
BAT NTC
LED+
LED—
Sensor Dim
LED Indication
Test Switch

L
N
SL
PE

39.7
4.5
132.5
139
21.3

Wiring Diagram

PE L N

Battery(6.4V Life)

BAT+
BAT—
BAT NTC
LED+
LED—

L
N
SL
PE

Sensor Dim connection

GRE&RED

Compatible Plug-and-play Sensor Antenna

HF

SAM20   SAM23   SAM21   SAM22   SAM22/AA

PIR

HIR05   HIR05/FM   HIR63   HIR63/R   HIR11/AA   HIR11/S   HIR11/C   HIR11/F   HIR12   HIR07

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

20
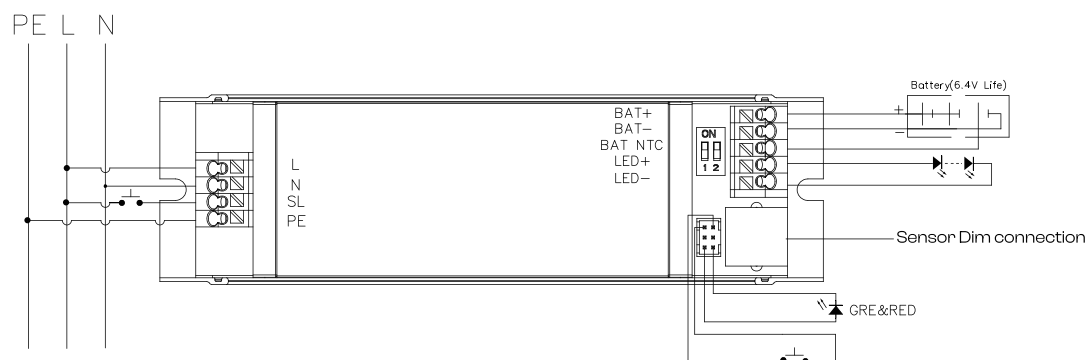
Bluetooth ⟷ DALI Emergency Translator

| 100mA DALI PSU | Switch-Dim & Bluetooth | Screw Mounting |
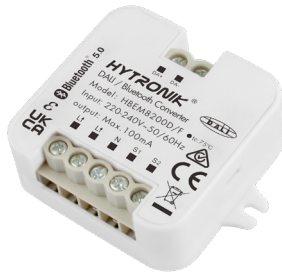
HBEM8200D/F

Key Benefits

- Converts DALI/DALI-2 emergency drivers output to Bluetooth control
- Compact design for seamless fixture retrofit
- Built-in 100mA DALI PSU, supports DT6/DT8 drivers
- Includes 2 push inputs for manual test and reset
- Enables wireless scheduling of monthly and annual EM tests via Koolmesh app
- Sends real-time email alerts on faults or test failures

Where it Fits

| LED Panel | Bulkhead | Tri-proof | Pendant | Linear |

Mechanical Structure (unit: mm)

DA+
DA-

L N S1 S2

46
52
58
3.1
46
1.5
18

*Please always check the latest datasheet for technical requirements--------http://hytronik.com
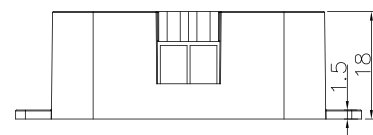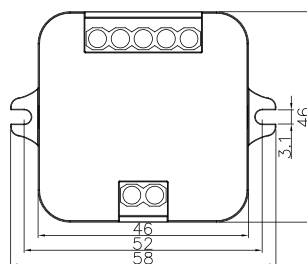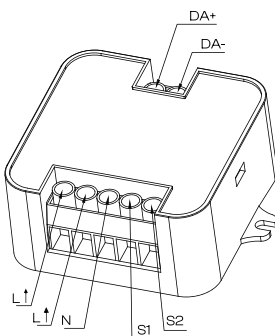
Bluetooth $\longleftrightarrow$ DALI Emergency Translator

30mA DALI PSU   **Switch-Dim & Bluetooth**

Key Benefits

- Converts DALI/DALI-2 emergency drivers output to Bluetooth control
- Plug-and-play compatibility with various HF and PIR sensor heads
- Built-in 30mA DALI PSU, supports DT8 LED drivers
- Includes 2 push inputs for manual test and reset
- Enables wireless scheduling of monthly and annual EM tests via Koolmesh app
- Sends real-time email alerts on faults or test failures
- Ideal for easy retrofit in luminaires with compact design

HBEM038

Optional Accessories

Reinforced Bluetooth Range Antenna [HA01 W & HA01 B]

FPC (Flexible Antenna)

Where it Fits
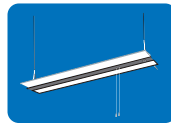
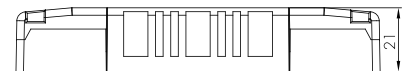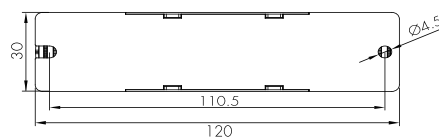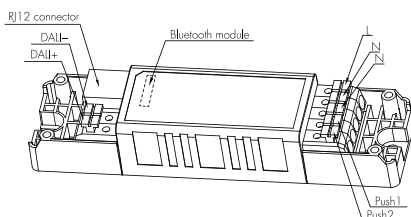LED Panel   Bulkhead   Tri-proof   Pendant   Linear

Compatible Plug-and-play Sensor Antenna

HF

SAM20   SAM23   SAM21   SAM22   SAM22/AA

PIR

HIR05   HIR05/FM   HIR63   HIR63/R   HIR11/AA   HIR11/S   HIR11/C   HIR11/F   HIR12   HIR07

Mechanical Structure (unit: mm)

RJ12 connector
DALI-
DALI+
Bluetooth module
L
N
Push1
Push2

30

Ø4.5

110.5

120

21

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Bluetooth ⟷ DALI Emergency Translator

| DALI/DALI-2 | Bolt-on/Batten-fit PIR Sensor | High-bay |

IP65

HBEM049

Key Benefits

- Integrated DALI/Bluetooth converter and PIR sensor
- Converts DALI/DALI-2 emergency driver output to Bluetooth controll
- Built-in 30mA DALI PSU, supports DT8 LED drivers Includes
- Upgrade old buildings with smart lighting without extra wirings
- Enables wireless scheduling of monthly and annual EM tests via Koolmesh app
- Sends real-time email alerts on faults or test failures

Accessories
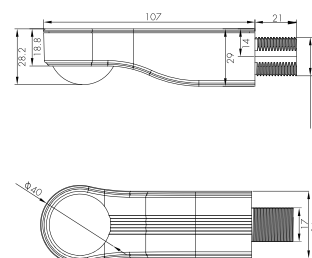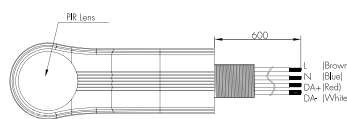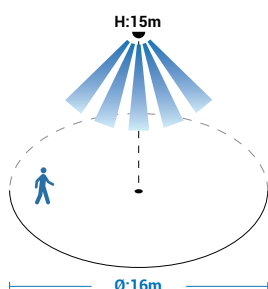
Shielding Accessory
[HA049]

Detection Range

Max.

Height
15m

Range Ø
16m

H:15m

Ø:16m

PIR Lens

600

L   (Brown)
N   (Blue)
DA+ (Red)
DA- (White)

107   21

Main Functions

| DALI broadcast output | Support D4i & DT8 drivers | Daylight harvest | Tri-level control | Circadian rhythm |

Technical Specifications

Output	Operating voltage	Stand-by power	Warming-up	IP rating
220 ~ 240VAC 50/60Hz	I guaranteed: 30mA I max: 50mA U rated: 16VDC	0.5W	20s	IP65

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Bluetooth ⟷ DALI Emergency Translator

DALI/DALI-2 | Stand-alone PIR Sensor | Low-bay to High-bay

HBIREM29

Key Benefits

• Integrated DALI/Bluetooth converter and PIR sensor
• Converts DALI/DALI-2 emergency driver output to Bluetooth control
• 2 push inputs for manual test and reset
 • Multiple PIR Lens options for different indoor applications
• Accessories available for surface/ceiling mounting styles
• Upgrade old buildings with smart lighting without extra wirings
• Enables wireless scheduling of monthly and annual EM tests via Koolmesh app
• Sends real-time email alerts on faults or test failures

Detection Range

H:6-15m

Ø:9-24m

Height
6-15m

Range Ø
9-24m
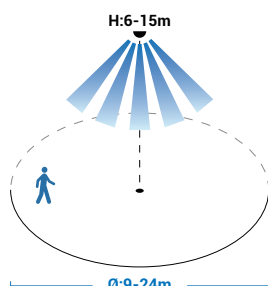
Where it Fits

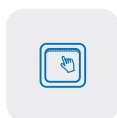Offices | School | Commerce | Warehouse | Retrofitting

Main Functions

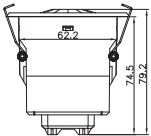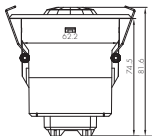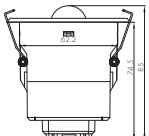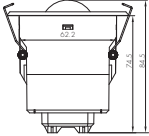DALI broadcast output | Support D4i & DT8 drivers | 2 push inputs | RTC real time clock | Daylight harvest | Tri-level control | Circadian rhythm

Technical Specifications

Designation	Output	Operating Voltage	Stand-by Power	Warming-up	IP rating
HBIREM29 Series	DALI I max. 80mA	220~240VAC 50/60Hz	<1W	20s	IP20/IP54

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Mechanical Structure (unit: mm)

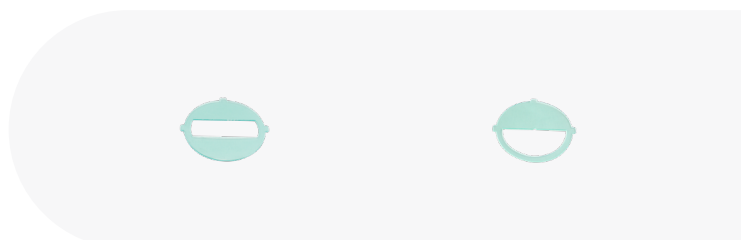| Lens Types	Low-bay	/R Reinforced Low-bay	/W Wide range Low-bay	/H High-bay
Detection Range (Max.)	High **6m** Range Ø **9m**	High **6m** Range Ø **10m**	High **6m** Range Ø **18m**	High **15m** Range Ø **24m**

Accessories

Ceiling/surface metal mount box(IP54 options)
[HA09/W, HA09/B, HA09/G]
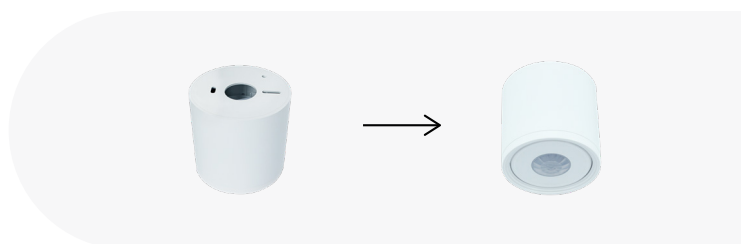
High back caps, side-out-line back caps
[HA08, HA08/S]
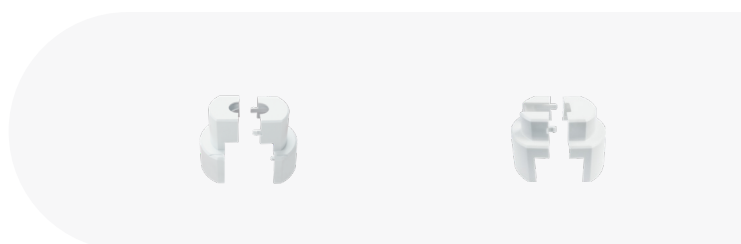
Blind Insert for Blocking Certain Detection Angles

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Battery Pack

Compatible For:

HBEM01, HBEM02, HBEM03, HBEM04, HBEM06

BPC83

Battery Type	Specification	Size (mm)	Recharge Time
LiFePO4	3.2V, 3.6Ah	105x53x27.5	24h

BPC84

Battery Type	Specification	Size (mm)	Recharge Time
LiFePO4	3.2V, 3.6Ah	174.8x26.5x29	24h

Compatible For:

HBEM05

BPC85

Battery Type	Specification	Size (mm)	Recharge Time
LiFePO4	12.8V, 3.6Ah	100x56.5x66.5	24h

*Please always check the latest datasheet for technical requirements--------http://hytronik.com

Why Choose Hytronik?

Proactive Safety :
Reduce risks and avoid unexpected failures

Effortless Maintenance :
Plan battery replacements before issues occur

Flexible Installation :
Solutions for any project, any luminaire

Smart Control :
Integrates seamlessly with sensors and wireless systems

HYTRONIK INTERNATIONAL

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