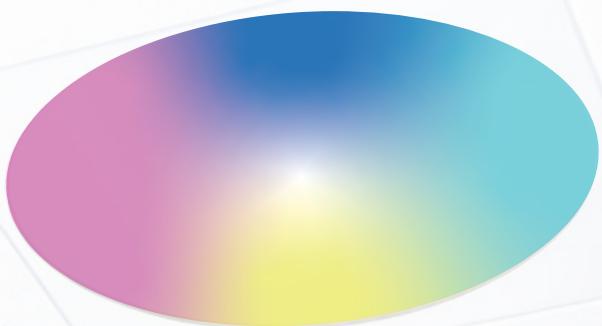


RGBW Lighting Solutions



Full Sunlight Spectrum (Blackbody) & Chroma (DUV) Tuning



HYTRONIK®
SENSORS & LIGHTING CONTROL

Koolmesh®
TAILOR MAKE YOUR SOLUTION



2026

Website: www.hytronik.com

Lighting Without Limits – Color, Precision, and Control.



Bring your spaces to life with Hytronik's Bluetooth RGBW series.

From architectural lighting to commercial environments and industrial applications, our professional RGBW platform enables precise control and consistent color performance across every project.

Unlike standard RGBW drivers, Hytronik offers three advanced color-tuning modes-RGBW, xyY, and DUV-giving designers, integrators, and installers the freedom to achieve exact color intent with repeatable accuracy.



RGBW Preference

Standard color mixing for endless creative possibilities.

xyY Coordinate Control

Precise hue and chromaticity control for professional-grade lighting.

Black Body Curve Tuning (DUV Adjustment)

Fine-tune white light spectrum to match mood, circadian rhythms, or brand aesthetics.

Solving the Real Challenges in RGBW Projects

The Challenge

- Color inconsistency across fixtures
- Complex setup, long commissioning
- Hard to integrate with controls



Hytronik Solution

- Consistent color output with precision dimming
- One app, quick setup, no rewiring
- Full Bluetooth mesh + sensor integration



Transform Any Space, Any Mood



Commercial

Create brand-defining atmosphere with precise color control.



Supermarket / Retail

Highlight merchandise and adapt lighting scenes to promotions and seasonal themes.



Entertainment

Deliver immersive visual experiences with dynamic color motion.

Dynamic RGBW Corridor Lighting

**Motion-Triggered Ambient Color
for Modern Buildings**

What This Solution Does

Create a dynamic RGBW ambient lighting effect for corridors, tunnels, and long passageways. When motion is detected, the luminaires begin a smooth color-cycling animation; when the area is unoccupied, lighting returns to the predefined idle state.

Where It Fits



- Long industrial corridors
- Warehouses & logistics aisles
- Tunnels and back-of-house passages
- Retail or hospitality transition zones

How It Works



- Motion detected → RGBW animation starts
- Motion continues → scene loops smoothly
- No motion (e.g., 20 minutes) → revert to idle scene or offstate
(Controlled via Koolmesh App & Bluetooth mesh automation)

What You Need



- Koolmesh network created
- RGBW luminaires paired
- Motion sensor paired
- Corridor luminaires grouped in a zone

Ambient Lighting Animation Setup Guide

■ STEP1: Create RGBW Base Scenes

Build the color foundation for the dynamic animation.

Using the Koolmesh App, create the individual color scenes that will form the animation sequence. Hytronik supports RGBW, xyY, and DUV/blackbody settings for precision tuning.

Example RGBW Base Scenes *(Technical values retained for professional users)*

[Go to Koolmesh App → Scenes → Create a new scene]

Scene	R	G	B	W
Red	255%	0%	0%	0%
Green	0%	255%	0%	0%
Blue	0%	0%	255%	0%

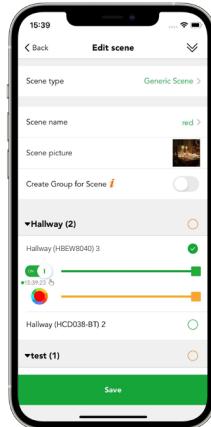
These three scenes serve as the primary color anchors for dynamic corridor effects. Additional custom scenes can be added using xyY or DUV tuning for refined chromaticity control.

Role of Base Scenes

- Provide stable color reference points
- Ensure consistent transitions
- Enable repeatable visual effects across luminaires



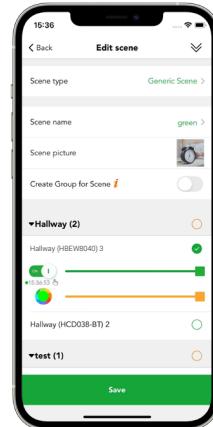
Scene 1 – Red



Scene 2 – Blue



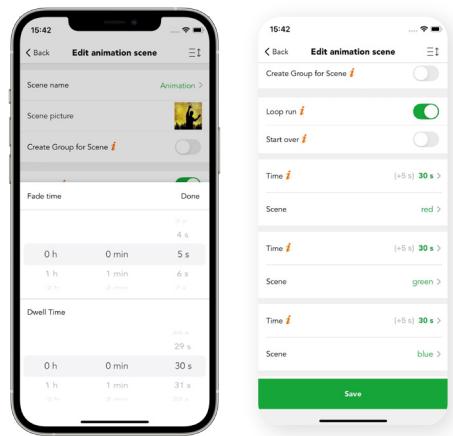
Scene 3 – Green



■ STEP 2: Configure the Dynamic RGBW Animation

Combine scenes into a smooth color-cycling sequence.

Use the base scenes to create a looping animation:



Animation Settings (Technical Parameters)

- **Scene duration:** 30 seconds per color
- **Fade time:** 5 seconds between scenes
- **Sequence order:** Red → Green → Blue
- **Loop run:** Enabled

When activated, the animation cycles through the scenes with smooth transitions, creating a continuous ambient effect along the corridor.

Advanced users may adjust timing and fade parameters to match the architectural or experiential intent.

■ STEP 3: Set Motion-Triggered Activation

Ensure the animation operates only when presence is detected.

Configure a Koolmesh-compatible motion sensor to control animation playback.

Sensor Configuration (Technical Parameters)

- **Sensor mode:** Presence
- **Hold time:** 20 minutes
- **Fade time:** 7 seconds
- **Hold Time Scene:** RGBW animation scene

Logic Flow

- **Motion detected:** Animation starts
- **Presence maintained:** Sequence continues looping
- **No motion (20 min):** Animation stops → revert to idle scene or off state



All settings are applied via Bluetooth mesh automation within the Koolmesh App.

Why Hytronik RGBW?

Precise color control. Seamless integration. Built for professional lighting.



Multi-Dimensional Color Control

RGBW /xyY/ DUV tuning for accurate, repeatable color in commercial and industrial projects.



Works Across All System Types

Compatible with CC drivers, CV dimmers, and DALI/ D4i/ DT8 via Bluetooth-DALI converters.



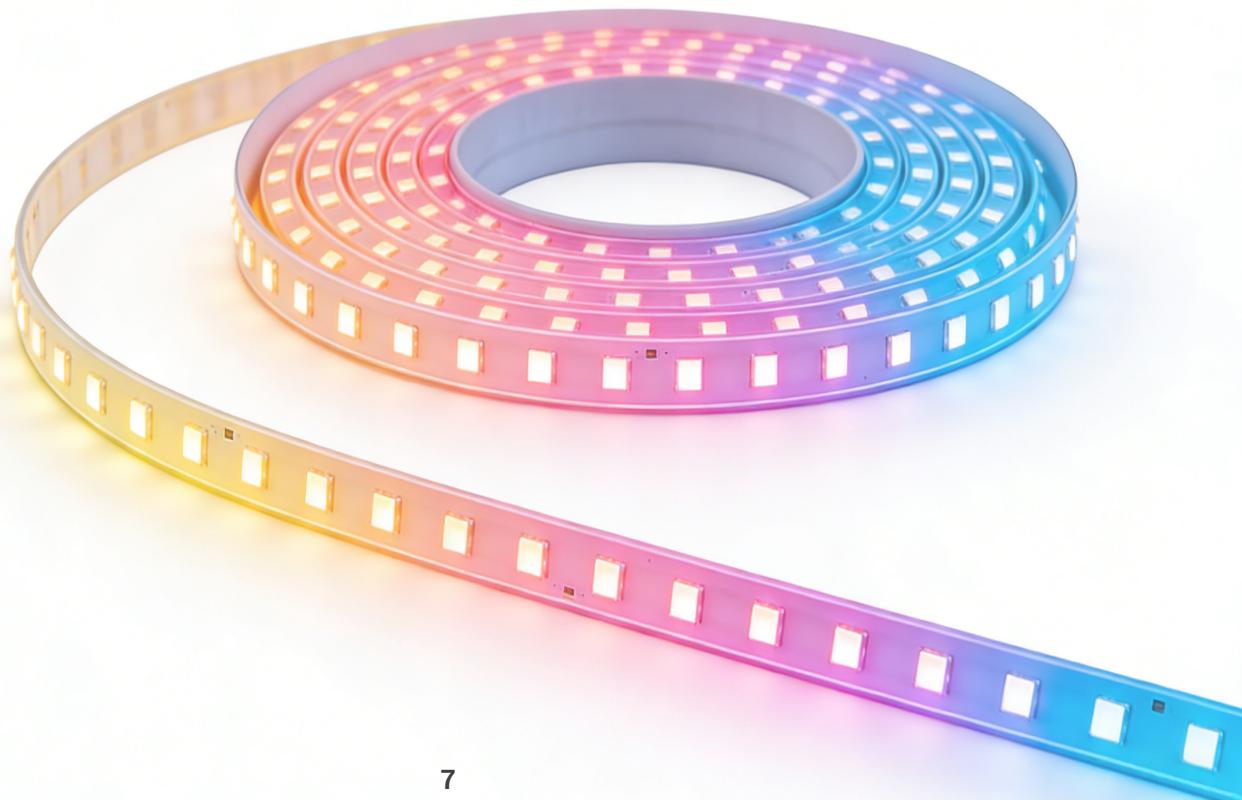
Fast Wireless Commissioning

Bluetooth Mesh + Koolmesh App enables quicksetup, scene control, and automation-no rewiring required.



Reliable & Project-Ready

Smooth dimming, stable chromaticity, and protection features designed for long-term performance.



Product Portfolio

Bluetooth RGBW Driver 42W (CC)

For constant-current luminaires



HBEW8040



- Multiple output current options (350-1050mA)
- Stable CC driving for architectural or commercial fixtures
- Built-in protection for professional-grade reliability



2

- 4-channel MOSFET PWM output for RGBW strip systems
- Ideal for linear lighting and retail feature lighting

Bluetooth RGBW Dimmer (CV)

For 12/24V LED strips & CV modules



HTBD8200PWM

DALI to Bluetooth RGBW Converter & Sensor

Compact in-luminaire integration



HCD038/BT/RGBW



3

- Slim module with RJ12 sensor head (PIR/HF) options
- Enables luminaire-level sensing + RGBW control



4

- DALI broadcast output for DT6/DT8 drivers
- Fits into wall junction boxes for retrofit

DALI to Bluetooth RGBW Converter

For upgrading existing DALI systems



HTBD8200D/RGBW

Product Overview

RGBW LED Driver

Designation	Type	Input	Dimensions (L x W x H mm)	Output Uout max.	Output Dimming Interface	Human Centric Lighting	Tunable White Control	Max. Output Power / Current / Voltage range
 Max. 45W HBEW8040	Constant Current	220~240VAC	185 x 79.2 x 23	60V	Bluetooth Switch-Dim		✓	5.25-14W / 350mA / 15-40V 7.5-20W / 500mA / 15-40V 9-24W / 600mA / 15-40V 10.5-28W / 700mA / 15-40V 12-32W / 800mA / 15-40V 13.5-36W / 900mA / 15-40V 15-40W / 1000mA / 15-40V 15.75-42W / 1050mA / 15-40V

RGBW Bluetooth Dimmer

Designation	Input Voltage	Output	Bluetooth Sensor-link	Push Switch	Application Type
 HBTD8200PWM	12-24 VDC	PWM 12/24V 72/144W	✓	✓	Bluetooth to RGBW Dimming

Bluetooth ↔ DALI RGBW Converter

Designation	Input Voltage	Output	Bluetooth Sensor-link	Push Switch	Application Type
 HBTD8200D/RGBW	220~240VAC	DALI 100mA, 16VDC	Bluetooth Sensor-link	✓	Bluetooth to DALI RGBW converter
 HCD038/BT/RGBW	220~240VAC	DALI BUS I max: 80mA	RJ12 Sensor Connection	✓	Bluetooth to DALI RGBW Converter

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

RGBW LED Driver



42W(CC) Output

RGBW Full Color

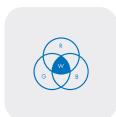


HBEW8040

Key Benefits

- Protective features (short-circuit, overload, open-circuit)
- Logarithmic dimming and linear dimming modes
- Customized rhythm light curve, suitable for hotel, supermarket applicataion
- Insulated terminal cover with cord restraint
- Wireless configuration via koolmesh app

Main Functions



RGBW, xyY, and DUV color light settings

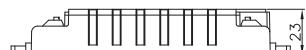
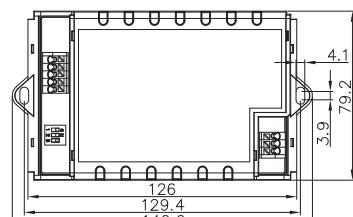
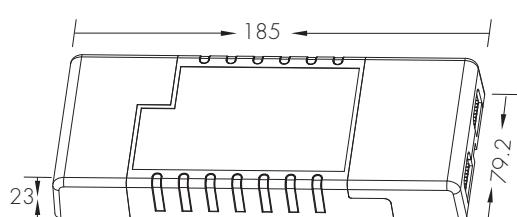


(CC) output via DIP switch



PWM 1KHz (1-100%)

Mechanical Structure (unit: mm)



Technical Specifications

Designation	Operating Voltage	Input Current	Input Power	Efficiency	Uout Max.	Output Voltage	Output Power
HBEW8040	220~240VAC 50/60Hz	210~190mA	45W	88% (Max.)	60V	15~40V	5~42W

Output LED Power / Current / Voltage

5.25-14W/350mA/15-40V 7.5-20W/ 500mA/15-40V	9-24W/ 600mA/15-40V 10.5-28W/ 700mA/15-40V	12-32W/ 800mA/15-40V 13.5-36W/ 900mA/15-40V	15-40W/ 1000mA /15-40V 15.75-42W/1050mA/15-40V
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*Please always check the latest datasheet for technical requirements-----<http://hytronik.com>

Bluetooth ↔ DALI RGBW Converter



DALI Output



Key Benefits

- Enable wireless functionality for DALI lighting solution
- DALI broadcast output, I max: 100mA
- Support 2 independent push - button inputs for free configuration
- Enables RGBW colors tuning and scenes via Koolmesh app
- Support D4i driver and collect energy, fault and diagnostics data
- Typical installation in a wall junction box

HBTD8200D/RGBW

Main Functions



DALI Broadcast Output



2 Push



Short-circuit protection



Overload protection

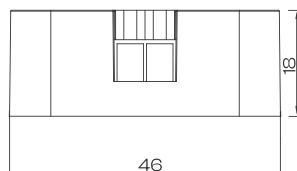
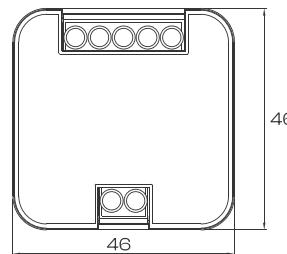


Supports D4i & DT8 LED Drivers



RGBW, xyY, and DUV color light settings

Mechanical Structure (unit: mm)



Technical Specifications

Designation	Operating Voltage	DALI Power Supply	Push Switch
HBTD8200D/RGBW	220~240VAC 50/60Hz	I guaranteed: 80mA I max: 100mA U rated: 15VDC	2 Push inputs

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

RGBW Bluetooth Dimmer



CV Dimmer

4 CH

CV NEW



HBTD8200PWM

Key Benefits

- Achieves independent output control for 12/24V lamps via 4-channel MOSFETs
- Up to four channels making it an ideal partner for RGBW and tunable white (TW) applications
- Design for constant voltage LED loads, such as LED strips and constant voltage LED modules
- Wireless configuration via Koolmesh app

Main Functions

CV

PWM



Short-circuit protection

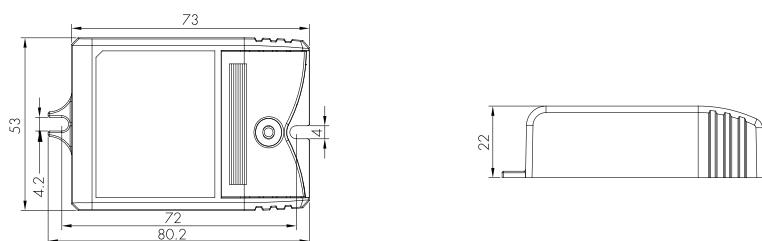
Open-circuit protection

Constant voltage

PWM 1KHz (1-100%)

RGBW, xyY, and DUV color light settings

Mechanical Structure (unit: mm)



Technical Specifications

Designation	Output	Operating Voltage	Output Current	Efficiency	Stand-by Power
HBTD8200PWM	PWM 4CH 144 W @ 24 VDC	12-24 VDC	6A (Max.)	90% (Max.)	< 0.5W

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

Bluetooth ↔ DALI RGBW Converter



Dimmer & Sensor Combo

DALI Output



HCD038/BT/RGBW

Key Benefits

- Upgrade DALI RGBW Driver to wireless Bluetooth control
- Support D4i Driver and collect energy, fault and diagnostics data
- Plug-and-play sensor head for motion & daylight detection
- Multiple sensor options: HF / PIR, low-bay to mid-bay
- Compact design for easy in-fixture integration
- Wireless commissioning via Koolmesh app

Optional Accessories

FPC (Flexible Antenna)



Where it Fits



LED Panel



Bulkhead



Tri-proof



Pendant

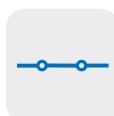


Linear

Main Functions



DALI broadcast output



Short-circuit protection



Overload protection

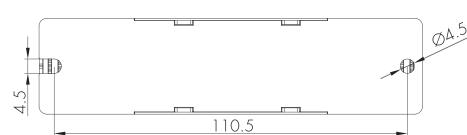
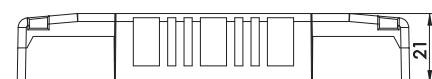


Supports DT6 & DT8 LED Drivers



Up to 4 Push function

Mechanical Structure (unit: mm)



Technical Specifications

Designation	Operating Voltage	DALI Power Supply	Stand-by Power	Push Switch
HCD038/BT/RGBW	220~240VAC 50/60Hz	DALI BUS I max: 80mA U rated: 16VDC I guaranteed: 30mA	<1W	2

Non-Bluetooth Plug-and-Play Sensor Antenna

Free Combination!

Designation	Detection Technology	Key Features	Daylight Sensor	Dimensions (L x W x H mm)	Tunable White Control	Pro-active Lux Switching	Install Height	IP Rate
 HIR05	PIR	Tri-level Dimming Daylight Harvest Circadian Rhythm Surface mount	Photocell	39.5 x 30 x 26.2	✓	Active Lux Switching	Low-bay max. 3m	IP20
 HIR05/FM	PIR	Tri-level Dimming Daylight Harvest Circadian Rhythm Flush Mount	Photodiode	Ø 48 x 35.3	✓	Active Lux Switching	Low-bay max. 3m	IP20
 HIR63	PIR	Tri-level Dimming Daylight Harvest Circadian Rhythm Conduit Screws	Photocell	Ø 26 x 31.8	✓	Active Lux Switching	Low-bay max. 3m	IP20
 HIR63/R	PIR	Tri-level Dimming Daylight Harvest Circadian Rhythm Conduit Screws	Photocell	Ø 36 x 43.4	✓	Active Lux Switching	Mid-bay max. 12m	IP65 (lens/ facial part)
 SAM88	HF	Tri-level Dimming Surface mount	Photodiode	40.4 x 25.2 x 24.3	✓	Active Lux Switching	Height: 3m Range Ø: 12m	IP20

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One solution that's precise, flexible, and built for tomorrow.



Bring Any Color to Life – Anytime, Anywhere.

Hytronik Bluetooth RGBW Solutions give you precision, speed, and creativity in every project.



Learn More About RGBW:

<https://hytronik.com/solutions/lighting-control-features/rgbw-precision-control>