

HCD438

Control body | DALI with PSU | Attachable sensor heads | US Certified

HYTRONIK[®]
SENSORS & LIGHTING CONTROL



Benefits

Adaptable: Small control unit with strain relief

Versatile: Many sensor options for DALI control

Support: available to control DT8 LED drivers

Applications

Master luminaire with sensor

Classrooms

Offices

Check Out the Complete System Solution on the Website:
<https://www.hytronik.com/product/HCD438>

Product Description

HCD438 is a DALI control base with 30mA DALI power supply built in. They work with a wide range of microwave and PIR sensor heads. It is ideal for metal luminaire designs because the Bluetooth module is placed inside the sensor heads instead of control base. It is suitable for any typical indoor applications.

Functions and Features

See additional details at the end of datasheet



Built-in DALI PSU



D4i Data Access
Via App



DALI BUS Power
Supply



Push-Button
Input

HCD438

Control body | DALI with PSU | Attachable sensor heads | US Certified

Specifications

Main Capabilities

Dimming (Output) Interface	DALI/DALI-2
Connector Type	Standard 2 cables

Electrical Data

Operating voltage range	120-277 VAC
Stand-by power (Psb)	<0.5W
Warming-up	20 s
DALI bus maximum rated current (I _n max)	30 mA

HCD438

Control body | DALI with PSU | Attachable sensor heads | US Certified

Specifications

Technical	
Product weight	50.0 g
Product height	21.0 mm
Product length	110.5 mm
Product width	30.0 mm
Mounting hole	4.5 mm
Ambient temperature	-20 ~ +50 °C
Humidity max	20 ~ 90%
Case Temp.max	75.0 °C
IP Rate	IP20

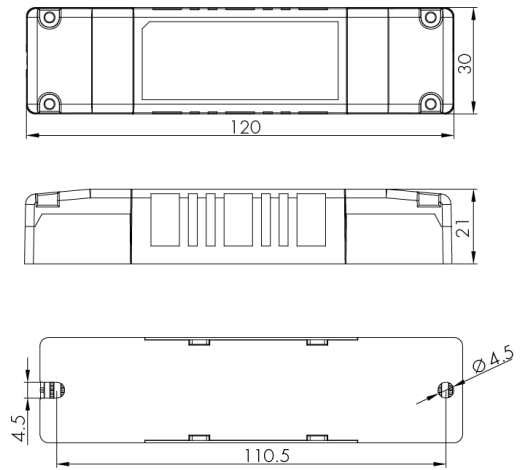
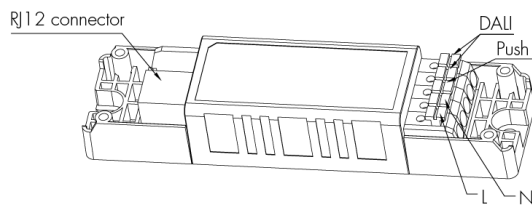
Standard	
LVD	CSA-C22.2 No. 284, UL773A

HCD438

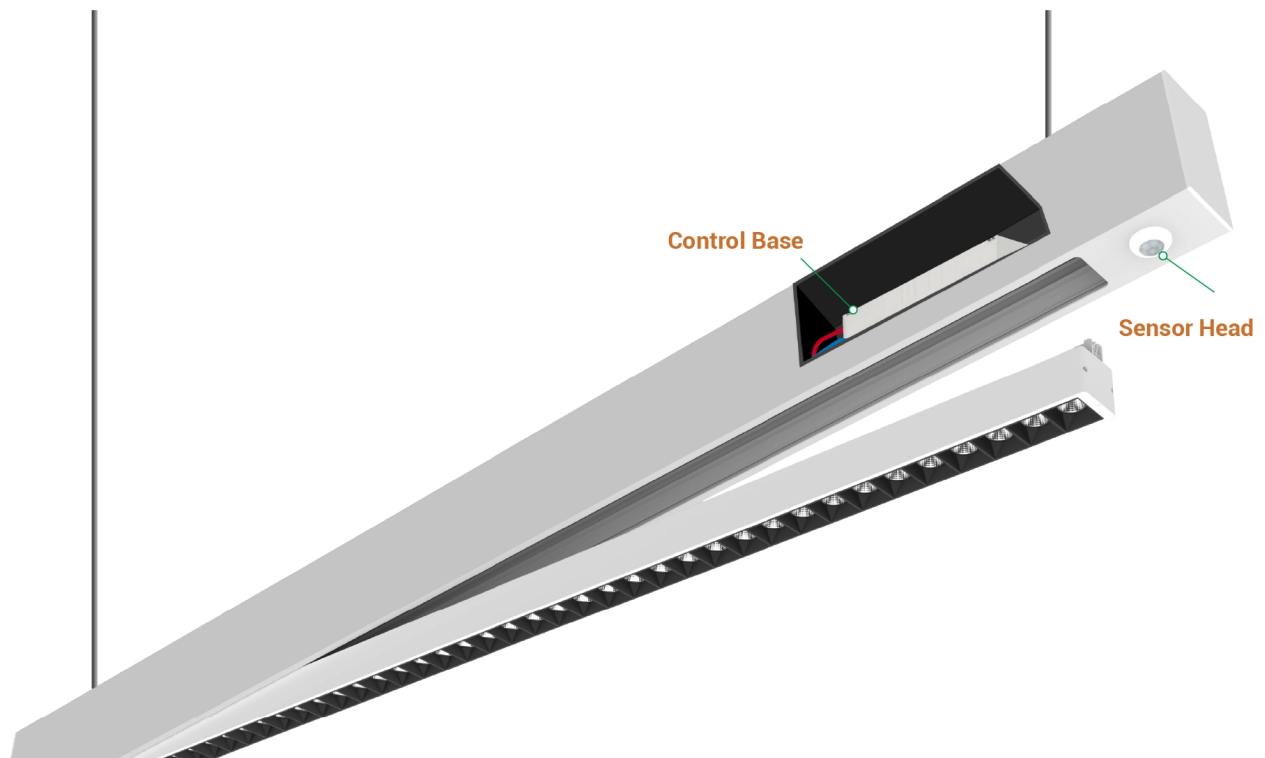
Control body | DALI with PSU | Attachable sensor heads | US Certified

HYTRONIK®
SENSORS & LIGHTING CONTROL

Technical Drawing



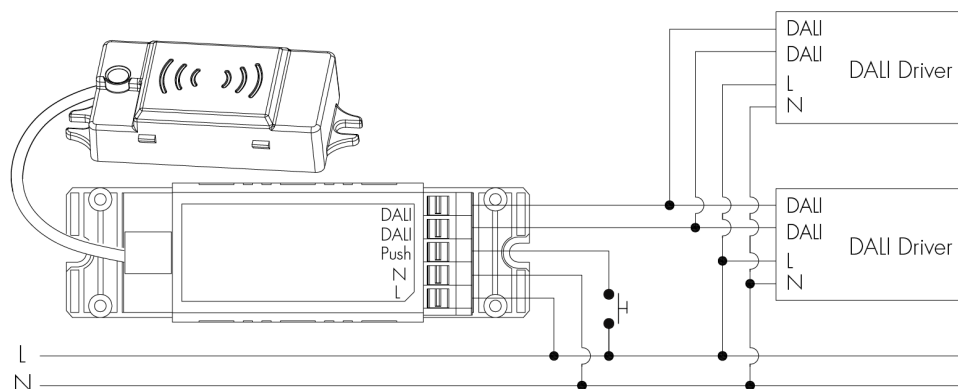
Application Example



HCD438

Control body | DALI with PSU | Attachable sensor heads | US Certified

Wiring Diagram



HCD438

Control body | DALI with PSU | Attachable sensor heads | US Certified



Commissioning Instructions and Precautions

A. Installation Notes

1. This product should be installed by a qualified electrician.
2. To ensure better detection, keep the sensor lens part beyond the surface of the light fixture.
3. We recommend the mounting distance between sensor to sensor should be more than 2m to prevent sensors from false-triggering.

B. Sensor head Precautions

1. The control base can be used only after it is connected to the sensor head via RJ12 connection.
2. The push function and commission type are determined by the included sensor head.
3. This is a non-Bluetooth base. All Bluetooth functions (such as tri-level control, daylight harvest, and circadian rhythm) can only be realized when it is connected to a Bluetooth sensor head.

Warning: For additional important documents, including installation precautions, product guidelines, and guarantee conditions, please refer to the official downloads.

<https://hytronik.com/service/downloads>

HCD438

Control body | DALI with PSU | Attachable sensor heads | US Certified

HYTRONIK[®]
SENSORS & LIGHTING CONTROL

Options

Compatible products (for full functionality)



HBT01

Bluetooth HF Lowbay | Photocell Advance | RJ12 connector to control body
www.hytronik.com/product/HBT01



HBT02

Bluetooth Receiver | Photocell Advance | RJ12 connector to control body
www.hytronik.com/product/HBT02



HIR02

PIR Lowbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/HIR02



HIR02/AA

PIR Lowbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/HIR02-AA



HIR02/FM

PIR Lowbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/HIR02-FM



HIR04

PIR Lowbay | Photocell Advance | RJ12 connector to control body
www.hytronik.com/product/HIR04



HIR13/AA

Bluetooth PIR Highbay | Adjustable Angle | RJ12 connector to control body
www.hytronik.com/product/HIR13-AA



HIR13/C

Bluetooth PIR Highbay | Ciradian Rhythm | RJ12 connector to control body
www.hytronik.com/product/HIR13-C



HIR13/F

Bluetooth PIR Highbay | Ciradian Rhythm | RJ12 connector to control body
www.hytronik.com/product/HIR13-F



HIR13/S

Bluetooth PIR Highbay | Ciradian Rhythm | RJ12 connector to control body
www.hytronik.com/product/HIR13-S



HIR16

Bluetooth PIR Highbay | Ciradian Rhythm | RJ12 connector to control body
www.hytronik.com/product/HIR16



HIR17

PIR Lowbay | Daylight harvest | RJ12 connector to control body
www.hytronik.com/product/HIR17



HIR17/R

PIR Midbay | Daylight harvest | RJ12 connector to control body
www.hytronik.com/product/HIR17-R



HIR19/AA

PIR Highbay | Adjustable Angle | RJ12 connector to control body
www.hytronik.com/product/HIR19-AA



HIR19/C

PIR Highbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/HIR19-C



HIR19/F

PIR Highbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/HIR19-F



HIR19/S

PIR Highbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/HIR19-S



HIR62

Bluetooth PIR Lowbay Sensor Head | RJ12 connector | Conduit Screws
www.hytronik.com/product/HIR62

HCD438

Control body | DALI with PSU | Attachable sensor heads | US Certified

Options

Compatible products (for full functionality)



HIR62/R

Bluetooth PIR Midbay Sensor Head | RJ12 connector | Conduit Screws
www.hytronik.com/product/HIR62-R



SAM7/FM

HF Lowbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/SAM7-FM



SAM11

HF Lowbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/SAM11



SAM7/I

HF Highbay | Photocell Advance | RJ12 connector to control body
www.hytronik.com/product/SAM7-I



SAM11/I

HF Lowbay | Photocell Advance | RJ12 connector to control body
www.hytronik.com/product/SAM11-I



SAM8

HF Lowbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/SAM8



SAM7

HF Lowbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/SAM7



SAM8/RC11

HF Lowbay | Tri-level dimming | RJ12 connector to control body
www.hytronik.com/product/SAM8-RC11



SAM7/AA

HF Lowbay | Tri-level & Adjustable Angle | RJ12 connector to control body
www.hytronik.com/product/SAM7-AA

HCD438

Control body | DALI with PSU | Attachable sensor heads | US Certified

Functions and Features



Built-in DALI PSU

Built-in DALI PSU means the DALI bus power supply is integrated into the product, eliminating the need for an external DALI power unit.

This reduces wiring complexity, saves installation space, and simplifies commissioning, making the system more compact and efficient.



D4i Data Access Via App

When the system is used together with the Koolmesh app, it can access D4i driver data such as luminaire information, energy consumption, and diagnostic data via the Bluetooth network. Access to D4i data is enabled by the software platform and depends on the Bluetooth-to-DALI interface of the connected device, not on the standalone hardware functionality of the sensor or module.



DALI BUS Power Supply

The product is powered directly from the DALI bus, eliminating the need for an additional mains power supply. This simplifies installation and reduces wiring while ensuring stable operation and reliable communication with DALI control devices and luminaires, as it supplies standardized DALI voltage and current, supporting smooth commissioning and long-term system stability.



Push Button Input

This product integrates push-button (momentary switch) inputs, allowing external potential-free switches to trigger basic lighting control functions. Each input can be configured for actions such as on/off switching, dimming or scene recall, providing flexible manual control and user interaction within the lighting system. The push-button inputs operate independently of the sensor's automatic functions, enabling seamless coexistence of manual and sensor-based lighting control.

Check out for further explanation of features

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