

HF Lowbay | DALI-2 input device | Photodiode



Compact: Super compact size - DALI-2 sensor

DALI-2 feature: Occupancy (part 303) Daylight (part 304)

Standardized: Compliant to IEC62386 101, 103, 303, 304

For round shape luminaire up to 6m height

Office / Meeting rooms

Schools / Classroom

Check Out the Complete System Solution on the Website:
<https://www.hytronik.com/product/HCD405D2>



CB



RED

UK
CA

HCD405D2 built-in microwave sensor has been certified as DALI-2 input device with daylight sensor instance and HF motion sensor instance. It is ideal for typical indoor applications such as office, classroom, healthcare and other commercial areas.

See additional details at the end of datasheet



DAI-2 Certified



Robust HF Antenna Design

HCD405D2

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Specifications

Main Capabilities

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

Sensor Data

Detection angle	30° - 150°
Lux range	0~1023 lux
Max. Detection range (Diameter)	10.0 m
Maximum Mounting Height	3.0 m
Detection area	78 m²

Electrical Data

Operating voltage range	9.5-22.5 VDC
Input Voltage	220-240 VAC 50/60 Hz
Warming-up	20 s
Required DALI Current	2.0 mA
Current Consumption	Max. 2mA from DALI Bus
HF Transmission power	<0.5mW

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Specifications

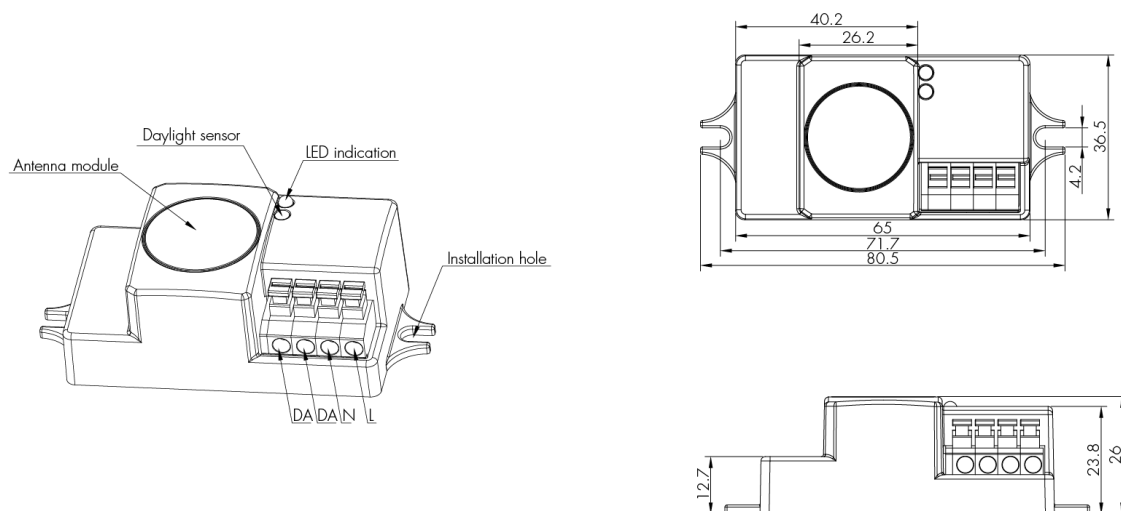
Technical	
Product weight	35.0 g
Product height	26.0 mm
Product length	80.5 mm
Product width	36.5 mm
Mounting hole	4.2 mm
Ambient temperature	-20 ~ +70 °C
Storage temperature	-40 ~ +70 °C
Humidity max	20 ~ 90%
IP Rate	IP20

Standard	
EMC	EN 55015, EN61000-3-2/-3-3, EN 61547
LVD	EN 61347-1, EN 61347-2-11
RED	EN 300440, EN301489-1, EN301489-3, EN 50663
Compliance	IEC62386_101, 103, 303, 304

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Technical Drawing



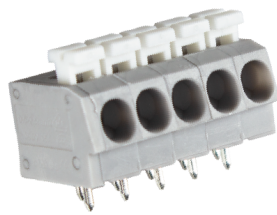
Application Example



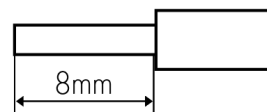
HCD405D2

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Wire Preparation

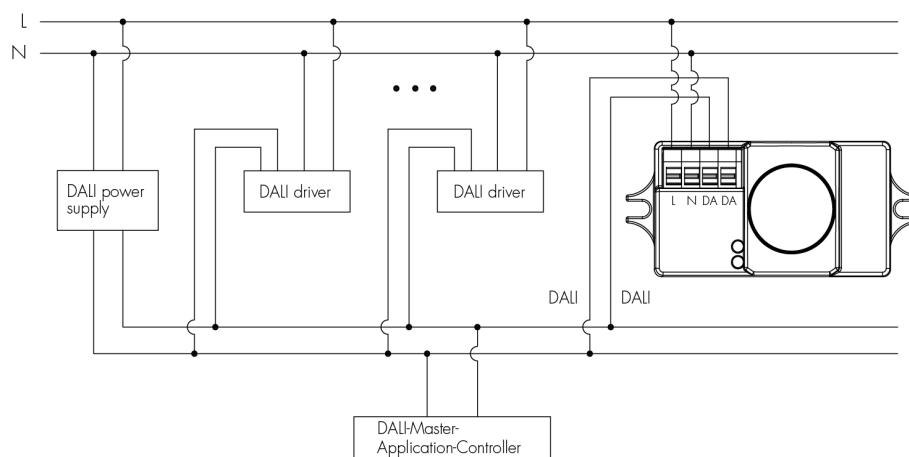


0.75~1.5mm²



To make or release the wire from the terminal, use a screwdriver to push down the button. 1. 200 metres (total) max. for 1mm² CSA (Ta = 50°C) 2. 300 metres (total) max. for 1.5mm² CSA (Ta = 50°C)

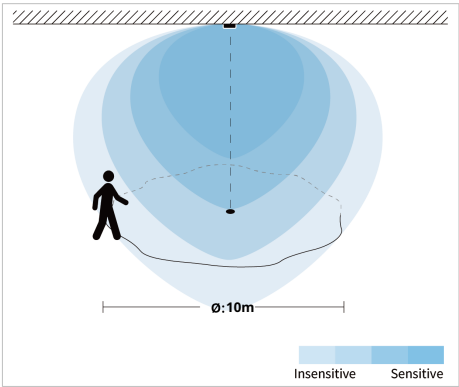
Wiring Diagram



Detection Range

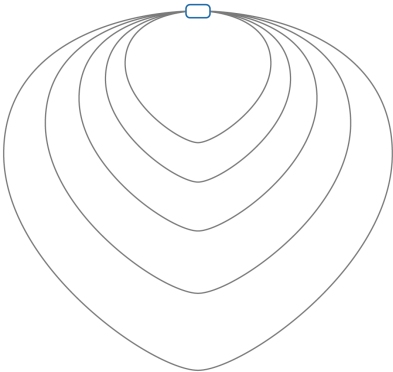
Single Person Walk (Ceiling mount)

Detection example 3m mounting height:



H[m]	Sensitivity			
	100%	75%	50%	10%
{diameter}				
3	10	8	6	4

Detection schematic diagram



Commissioning Instructions and Precautions

A. Installation Notes

1. This product should be installed by a qualified electrician.
2. We recommend the mounting distance between sensor to sensor should be more than 2m to prevent sensors from false-triggering.
3. HCD405D2 has been used as DALI-2 input device to only report DALI instance(light sensor instance and motion sensor instance) to DALI-2 application controller, who is the "main brain" to process the data communication between input devices and the control gear and assign different function.

B. DALI-2 Setting

1. DALI-2 sensor sensitivity adjustment please refer to:
https://hytronik.com/media/1b/a1/05/1767775483/DALI_Sensor_Sensitivity_Adjustment.pdf
2. DALI-2 instances & functional behavior please refer to:
https://hytronik.com/media/a1/7b/cd/1767775493/DALI_2_Instances_and_Functional_Behavior.pdf

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

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

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Functions and Features



DALI-2 Certified

The product is DALI-2 certified, ensuring compatibility with DALI-2 control devices and compliance with relevant international lighting control standards. Certified product details can be verified via the DALI Alliance product database.



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The touch panel supports both manual and automatic adjustment of the display brightness. In automatic mode, the screen adapts its brightness according to the surrounding ambient light to maintain optimal visibility and energy efficiency. In manual mode, users can set the preferred screen brightness level directly on the device, ensuring clear viewing under various installation conditions.

Check out for further explanation of features

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