

HC007S

HF Lowbay | ON/OFF via Dip-Switch | Photodiode

HYTRONIK®
SENSORS & LIGHTING CONTROL



Benefits

Compact: Super mini compact size - ON/OFF Sensor

Robust: Zero crossing detection circuit for increased relay life

Simple: Daylight, detection range and holdtime configuration via Dip-Switch

Applications

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/HC007S>



CB

CE

emc



RED



Product Description

HC007S is a HF motion sensor with on/off control, it is design with a super mini compact size and ideal for new luminaire designs and project installations.

HC007S also have a robust design to prevent wireless signal interference such as Wi-Fi, GSM tower, ultra-high-voltage cable etc.

Functions and Features

See additional details at the end of datasheet



Loop-in/Loop-out



ON/OFF Control



Robust HF
Antenna Design



Sensor Dim



Zero-Cross Relay
Operation

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Specifications

Main Capabilities

Dimming (Output) Interface	Relay On/Off
Connector Type	Standard 2 cables

Sensor Data

Detection angle	30° - 150°
Lux range	0-50 lux
Max. Detection range (Diameter)	10.0 m
Maximum Mounting Height	6.0 m
Detection area	78 m ²
Sensitivity	10% / 50% / 75% / 100%

Electrical Data

Operating voltage range	220-240 VAC 50/60 Hz
Stand-by power (Psb)	<0.3W
Warming-up	10 s
Max withstandable in-rush current	80A@160µs
HF Transmission power	<0.2mW (HF)
Load capacitive	300.0 VA
Load resistive	400.0 W

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Specifications

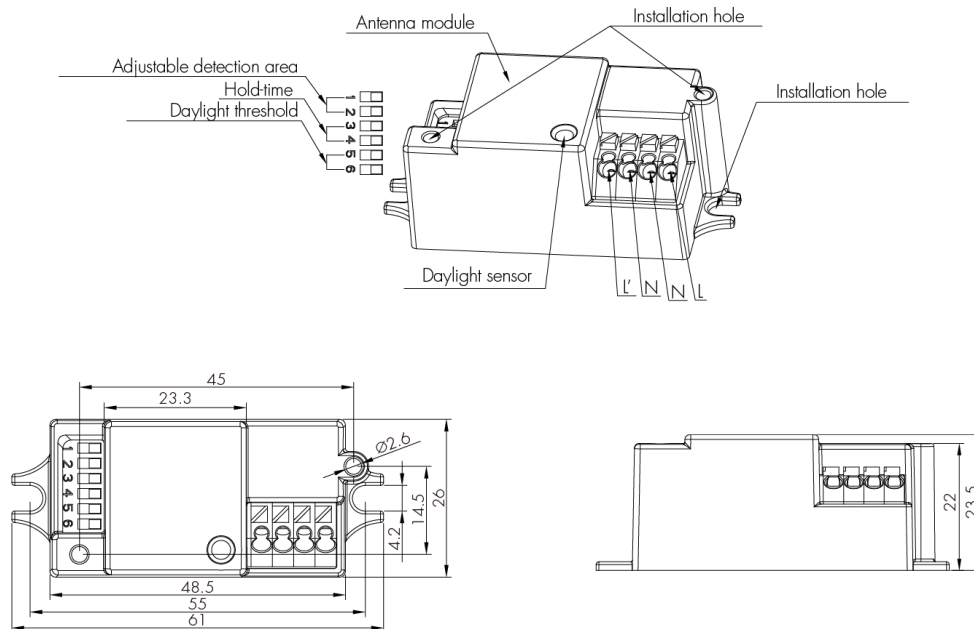
Technical	
Product weight	30.0 g
Product height	23.5 mm
Product length	61.0 mm
Product width	26.0 mm
Mounting hole	4.2 mm
Ambient temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +70 °C
Humidity max	10 ~ 90%
Case Temp.max	75.0 °C
IP Rate	IP20

Standard	
EMC	EN 55015, EN 61000
LVD	EN 61347-1, EN 61347-2-11
RED	EN 300440, EN301489-1, EN301489-3, EN 62479

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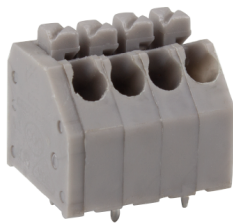
Technical Drawing



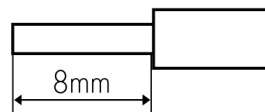
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Wire Preparation



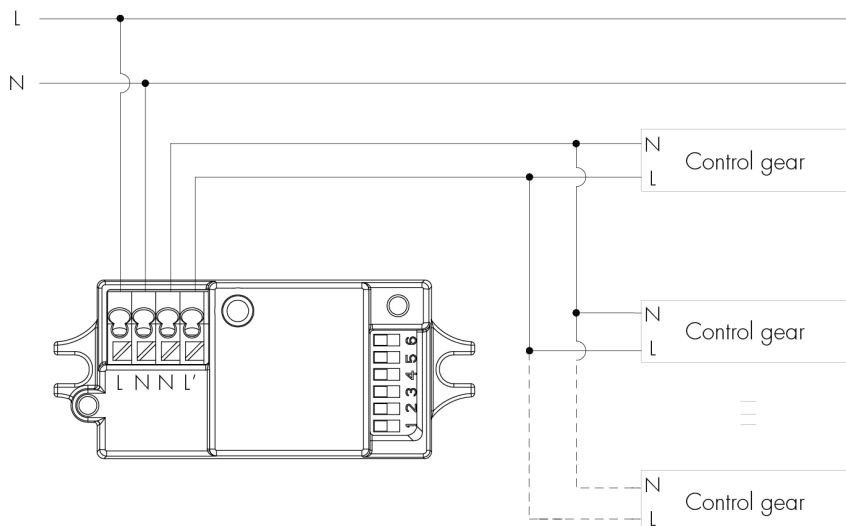
0.5 - 1.5 mm²



To make or release the wire from the terminal, use a screwdriver to push down the button.

Wiring Diagram

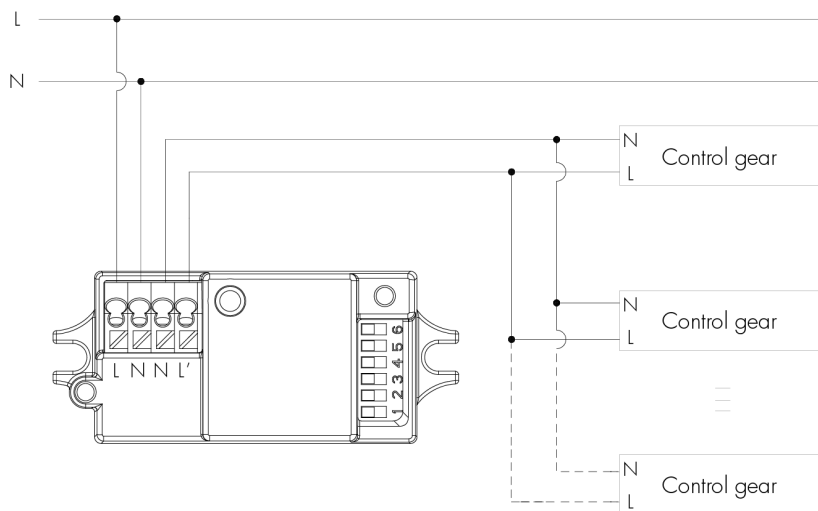
On/off Control



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Sensor DIM Function

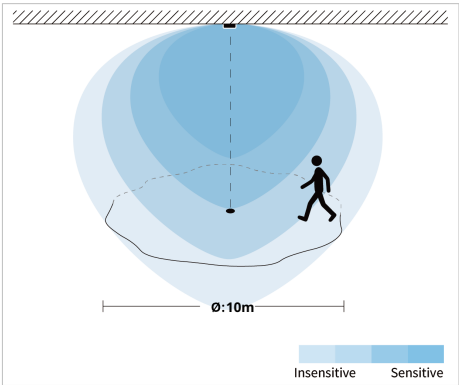


Detection Range

Single Person Walk (Ceiling mount)

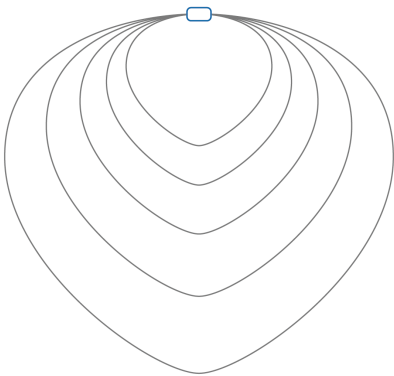
- The data below is tested under following conditions:
- Single person walking
 - Sensor not connected to any driver that may have soft-on period
 - Testing temperature Ta = 20°C

Detection example 6m mounting height:



Sensitivity	
H[m]	100%
	Ø[m]
6	10

Detection schematic diagram

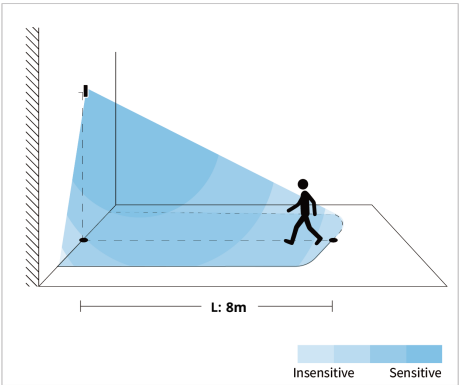


Detection Range

Single Person Walk (Wall mount)

- The data below is tested under following conditions:
- Single person walking
 - Sensor not connected to any driver that may have soft-on period
 - Testing temperature Ta = 20°C

Detection example 4m mounting height:



	Sensitivity
H[m]	100%
	L[m]
4	8

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Commissioning Instructions and Precautions

A. Installation Note

1. This product should be installed by a qualified electrician.

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

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

DIP Switch Settings

	1	2	
I	●	●	100%
II	●	○	75%
III	○	●	50%
IV	○	○	10%



Detection Range

Sensor sensitivity can be adjusted by selecting the combination on the DIP switches to fit precisely for each specific application.

	3	4	
I	●	●	5s
II	●	○	90s
III	○	●	5min
IV	○	○	15min



Hold Time

Select the DIP switch configuration for the light on-time after presence detection.
This function is disabled when natural light is sufficient.

	5	6	
I	●	●	Disable
II	●	○	50Lux
III	○	●	10Lux
IV	○	○	2Lux



Daylight Threshold

Set the level according to the fixture and environment. The light will not turn on if ambient lux level exceeds the daylight threshold preset.
Please note that the ambient lux level refers to internal light reaching the sensor.
Disabling the daylight sensor will put the sensor into occupancy detection only mode.

Functions and Features



Loop-in / Loop-out

The product provides loop-in/loop-out terminals that allow mains wiring to pass through the device for quick and convenient daisy-chain installation. This simplifies on-site wiring, reduces junction box requirements, and enables efficient connection of multiple luminaires or drivers in a single circuit.



ON/OFF Control

The product supports basic ON/OFF control of the connected luminaire, allowing the light to be switched fully on or off through the sensor's detection logic or an external control input. This provides straightforward lighting control for applications that do not require dimming functionality.



Robust HF Antenna Design

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.



Sensor Dim

This feature enables the luminaire to be dimmed automatically based on sensor detection. Depending on occupancy status or measured ambient light levels, the sensor adjusts the output to predefined dimming levels instead of simply switching the light on or off. Sensor-based dimming improves visual comfort, reduces energy consumption and supports more refined lighting control in both commercial and industrial applications.



Zero-Cross Relay Operation

The product operates its relay at the AC zero-cross point, reducing inrush current through the relay contacts when switching the load. By minimising electrical stress during each switching event, this method supports higher load capability and extends the operational lifetime of the relay in practical lighting applications.

Check out for further explanation of features

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