

Dry Contact HF Sensor

HC009SDC
On/off Control Built-in Version

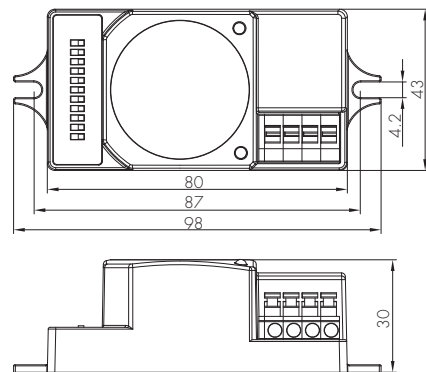
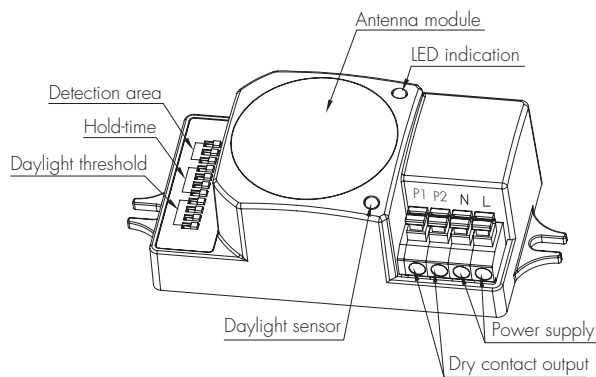
HYTRONIK®

Applications

Occupancy detector suitable for operating with external monitoring systems.

- Lighting fixture
- Air conditioner
- Air fan

Use for retrofit and new building installations



Note: We recommend the mounting distance between sensor to sensor should be more than 2m to prevent sensors from false-triggering.

Technical Data

Input Characteristics

Model No.	HC009SDC
Mains voltage	220~240VAC 50/60Hz
Stand-by power	<0.5W
Switched load:	
@ <277VAC	maximum 3.6V
@ <48VDC	maximum 2A
Warming-up	20s
Max withstandable in-rush current	80A@160μs

*The Max withstandable in-rush current tested under 50% Ipeak / 230Vac

Safety and EMC

EMC standard (EMC)	EN55015, EN61000
Safety standard (LVD)	EN60669
Radio Equipment (RED)	EN300440, EN301489, EN62479
Certification	Semko, CB, CE, EMC, RED, RCM

Sensor Data

Model No.	HC009SDC
Sensor principle	High Frequency (microwave)
Operation frequency	5.8GHz +/- 75MHz
Transmission power	<0.2mW
Detection range	Max. (Ø x H) 12m x 6m
Detection angle	30° ~ 150°
DIP Switch Settings:	
Sensitivity	10% / 25% / 50% / 75% / 100%
Hold-time	5s ~ 30min (selectable)
Daylight threshold	2 ~ 50 lux, disabled

Environment

Operation temperature	Ta: -35°C ~ +70°C
Case temperature (Max.)	Tc: +80°C
IP rating	IP20

CE emc RED  CB IP20

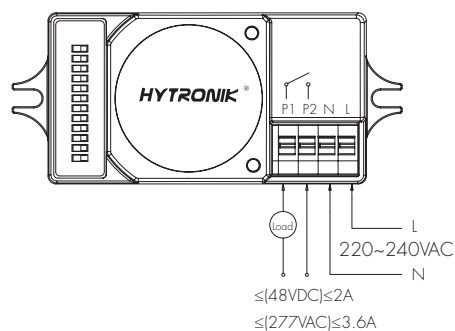
Function and Feature

Voltage free sensor

Sometimes also known as "Potentio-Free" or "Volt-Free" sensor, the dry contact sensors from Hytronik are designed to operate with external monitoring systems. They operate as conventional occupancy sensors, with the output available as shown in the table below:

Detection state	Contacts (P1 - P2)
Presence	Closed
Absence	Open

Wiring Diagram



DIP Switch Settings

1 Detection Range

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

	1	2	3	
I	●	●	●	100%
II	○	●	●	75%
III	●	○	●	50%
IV	●	●	○	25%
V	○	○	○	10%

I – 100%
II – 75%
III – 50%
IV – 25%
V – 10%

2 Hold Time

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

	1	2	3	4	
I	●	●	●	●	5s
II	○	●	●	●	30s
III	●	○	●	●	1min
IV	●	●	○	●	5min
V	●	●	●	○	15min
VI	○	○	○	○	30min

I – 5s
II – 30s
III – 1min
IV – 5min
V – 15min
VI – 30min

3 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.

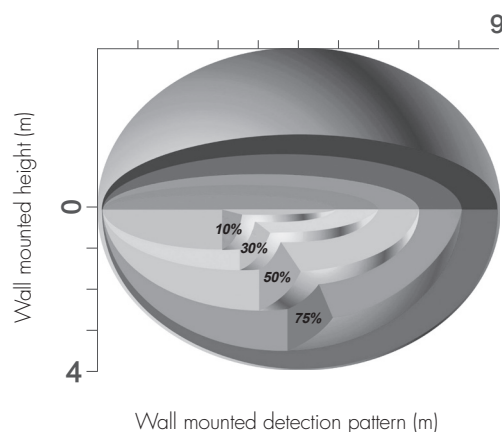
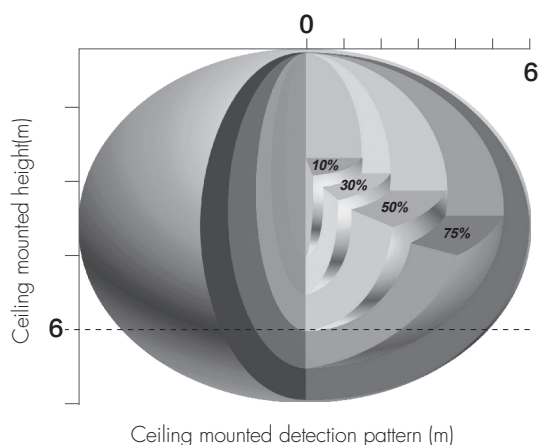
Please note that the ambient lux level refers to internal light reaching the sensor.

Disabling the daylight sensor will put the sensor into occupancy detection only mode.

	1	2	3	4	
I	●	●	●	●	2Lux
II	○	●	●	●	5Lux
III	●	○	●	●	10Lux
IV	●	●	○	●	30Lux
V	●	●	●	○	50Lux
VI	○	○	○	○	Disable

I – 2 Lux
II – 5 Lux
III – 10 Lux
IV – 30 Lux
V – 50 Lux
VI – Disabled

Detection Pattern



Additional Information / Documents

1. Regarding precautions for microwave sensor installation and operation, please kindly refer to
www.hytronik.com/download ->knowledge ->Microwave Sensors - Precautions for Product Installation and Operation
2. Regarding Hytronik standard guarantee policy, please refer to
www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy