Microwave Motion Sensor

Model: HC407VDS   **99 190 10-11**

TECHNICAL SPECIFICATIONS

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Product type:	Microwave Motion Sensor
Operating voltage:	120-277V AC 50/60Hz
HF system:	5.8GHz CW radar
Transmission power:	<0.2mW
Rated load: (Capacitive load)	400W@120V AC 800W@230V AC 1000W@277V AC
Detection angle:	30-150°
Power consumption:	<1W
Detection range:	Max. 12 m in diameter, adjustable
Time setting:	30 s ~ 30 min.
Mounting:	Indoors, ceiling or wall
Stand-by period:	0s, 10s ~ 1H, +∞
Stand-by dimming level:	10%~50%
Installation height:	≤ 6m
Working temperature:	-20~60°C
Installation hole:	Ø 78mm
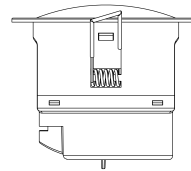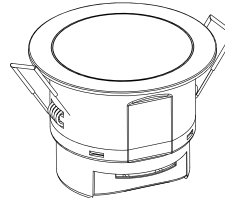
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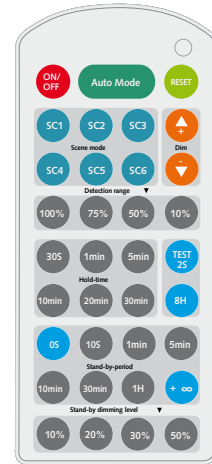
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The sensor is an active motion detector; it emits a high-frequency electromagnetic wave 5.8GHz and receives its echo. The sensor detects the change in echo from movement in its detection zone. A microprocessor then triggers the switch light ON command. Detection is possible through doors, glass panels and thin walls.

NOTE: the high-frequency output of this sensor is <0.2mW; approximately just 2‰ of the transmission power of a mobile telephone or the output of a microwave oven.

<0.2mW

Approx. 100mW
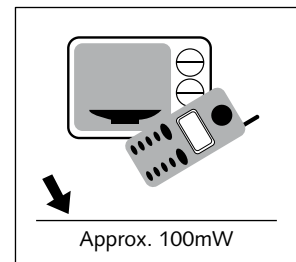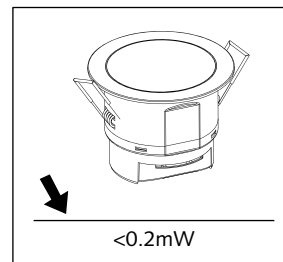
IMPORTANT

PLEASE READ THESE INSTRUCTION CAREFULLY PRIOR TO INSTALLATION AND RETAIN THIS LEAFLET IN A KNOWN AND SAFE PLACE FOR FUTURE REFERENCE.

INSTALLATION & WIRING

EN

Ensure that the electricity supply is switched off completely before installation or servicing this product.

The sensor has a 6-wire electrical interface:

Nx2 (neutral / 120-277V AC)

L (phase / 120-277V AC)

L' (switched phase / output)
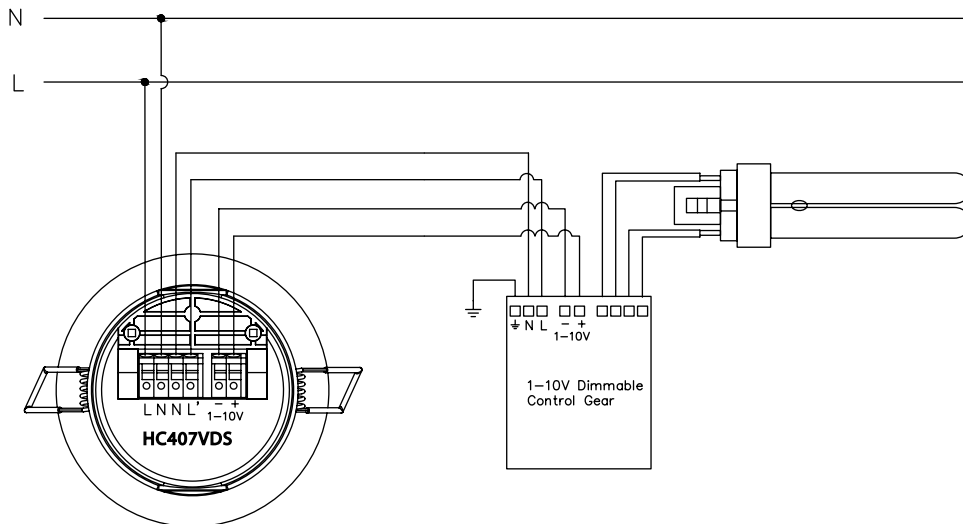
– (1-10V "–" interface)

+ (1-10V "+" interface)

SE

Försäkra dig om att strömmen är helt avstängd innan installation eller underhåll.
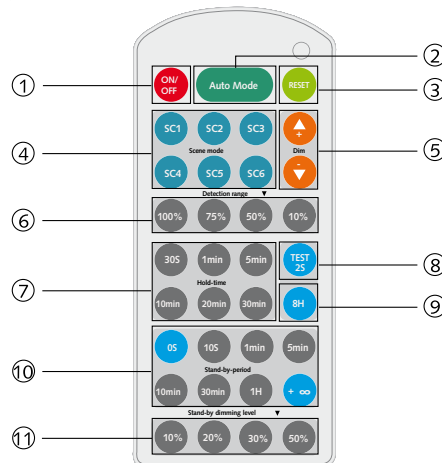
Sensorn har sex plintar:

Nx2 (nolla / 120-277V AC)

L (fas / 120-277V AC)

L' (tändtråd)

– (1-10V "–")

+ (1-10V "+")

WIRING DIAGRAM

FUNCTIONS AND SETTINGS

2.1 Remote control (separate instructions)

2.2 Functions

Permanent ON/OFF [button ①]

1. Press the button ① , the light goes to permanent ON or permanent OFF mode.
2. Exit this mode by pressing button ② ③ ④ ⑨. (Please refer to explanation accordingly).

Auto Mode [button ②]

Press button ② to enter auto mode, the sensor starts working and all settings remain the same as the latest status before the light was switched ON/OFF.

RESET [button ③]

Press button ③ all existing settings go back to factory-set values (see table below).

Detection range	Hold time	Stand-by period	Stand-by dimming level	Constant LUX
100%	5min	10min	20%	100Lux

Test 2s function [button ⑧]

1. Press button ⑧, the sensor goes to test mode (hold time 2s), stand-by period and daylight sensor are disabled.
2. Exit test mode by pressing buttons in zone ③④⑦ and the sensor setting is changed accordingly.

8H permanent on mode [button ⑨]

1. Press the button ⑨, the light will be 100% on for 8 straight hours even when there is no motion detected.
2. After 8 hours, the sensor goes to auto mode directly.
3. Exit this mode by pressing buttons ①②③④. (Please refer to explanation accordingly).

2.3 Settings

Detection range [zone ⑥]

Press the buttons in zone ⑥ to set detection range at 100% / 75% / 50% / 10%.

Hold time [zone ⑦]

Press the buttons in zone ⑦ to set hold time at 30S / 1min / 5min / 10min / 20min / 30min.

Stand-by period [zone ⑩]

Press the buttons in zone ⑩ to set stand-by period at 0s / 10s / 1min / 5min / 10min / 30min / 1H / +∞.

Note: "0s" means on/off control; "+∞" means 2 steps of dimming control, light never switches off.

Stand-by dimming level [zone ⑪]

Press the buttons in zone ⑪ to set the stand-by dimming level at 10% / 20% / 30% / 50%.

Constant lux value setting [zone ⑤]

1. Press and hold the buttons in zone ⑤ to adjust the fixture's brightness. ⊕ means dim up, ⊖ means dim down.
2. Stop pressing the buttons when desired brightness has been reached.
3. The built-in daylight sensor reads the available ambient lux level and adjusts electrical brightness to maintain the constant lux value.

Scene mode options [zone ④]

There are 6 scene modes for different applications:

Scene options	Detection range	Hold time	Stand-by period	Stand-by dimming level	Constant Lux
SC1	100%	1min	1min	10%	50Lux
SC2	100%	3min	5min	20%	75Lux
SC3	100%	5min	10min	20%	100Lux
SC4	100%	10min	30min	30%	150Lux
SC5	100%	20min	1h	30%	200Lux
SC6	100%	30min	+∞	50%	400Lux

Note: end-user can adjust the settings by pressing buttons in zone ⑥⑦⑩⑪, the last setting stays in validity.

TROUBLE SHOOTING

Malfunction	Cause	Remedy
The load does not work	Incorrect light-control setting selected	Adjust setting
	Load faulty	Replace load
	Mains switched OFF	Switch ON
The load is always on	Continuous movement in the detection zone	Check zone setting
The load is on without any identifiable movement	The sensor is not mounted reliably for detecting movement	Securely mount enclosure
	Movement occurred, but not identified by the sensor (movement behind wall, movement of small object in immediate lamp vicinity etc.)	Check zone setting
The load does not work despite movement	Rapid movements are being suppressed to minimize malfunctioning or the detection radius is too small	Check zone setting