

HB100 Microwave motion sensor

Introduction:

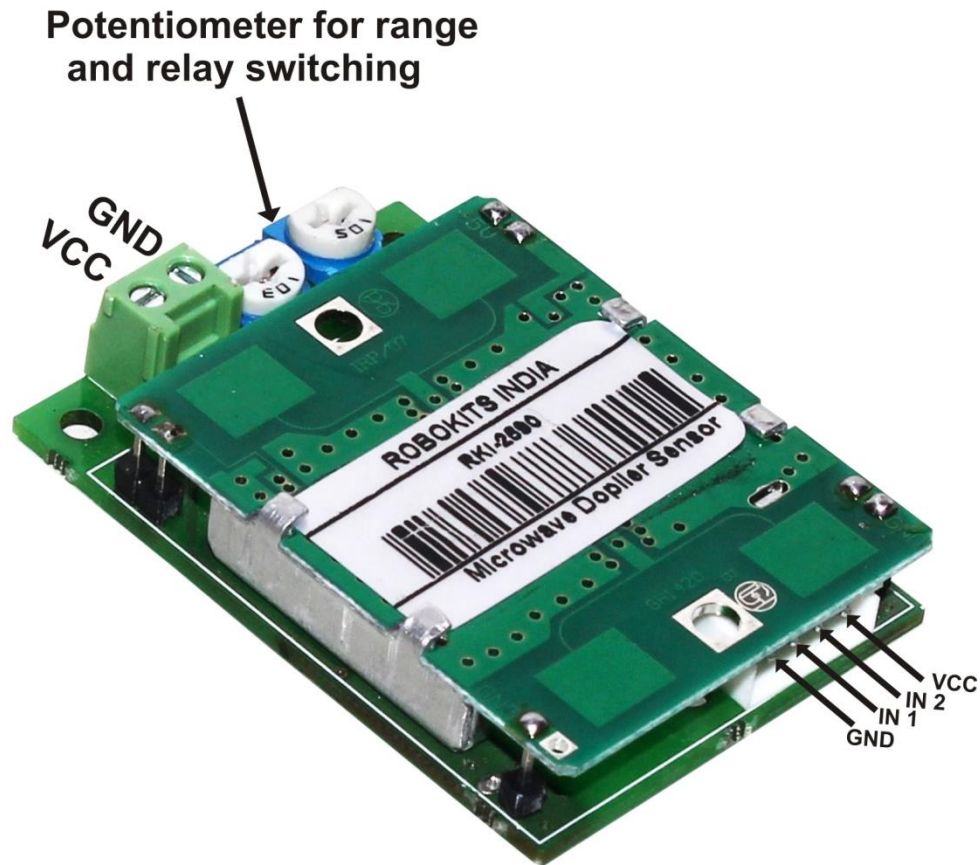
HB100 microwave motion sensor modules are X-Band Mono-static DRO (dielectric resonator oscillator) Doppler transceiver front-end module. HB100 is specially designed for movement detection like intruder alarms, occupancy modules. It is standard microwave radar. Detection range and angle of sensor is 15 cm and 160 degrees respectively. It provides low output signal, which can use with relay for intruder alarms or motion alarms. The minimum logic low signal is 25 seconds once triggered. This module can be used with microcontroller such as Arduino. This module has two potentiometers for increasing or decreasing range capacity of the sensor. This module is electrostatic sensitive device.

Technical specifications:

Parameter	Min	Max
Input voltage	4.5V	5.2V
Current consumption	30 mA	
Operation	CW(Continuous wave) or Pulse operation	
Detection range	15 m	
X band Frequency	10.525 GHz	
Maximum power output	13 dbm EIRP	
Operating Temperature	-15 °C	55°C
Dimensions	37mm *45mm *8mm	

Pin configuration:

As shown in picture sensor has 4 pins VCC, GND and In1 and In2.



Features:

1. Low output current
2. CW or pulsed operation
3. Flat profile
4. Long detection range up to 15m
5. Contains potentiometer for range and relay switching duration.
6. Output low signal can be used for trig a relay for applications
7. Minimum logic low signal is 25 seconds

Applications:

1. Speed measurement
2. Motion detection equipment
3. Vehicle speed measurement and automatic doors
4. Alarms