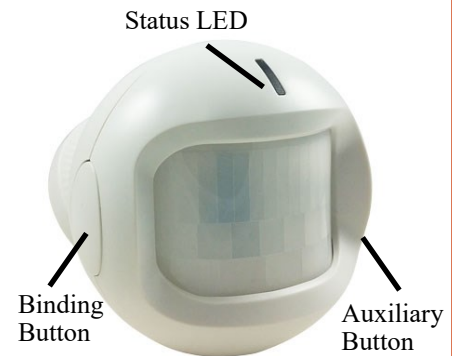# Product Brief - ZBMS3-1 - Model #1019D

Infrared Motion, Temperature and Light Level Sensor

This versatile wireless indoor motion sensor detects and reports movement, sends a message to turn on a light when the surrounding light intensity is low, and reports temperature. It operates from two 1.5V AA batteries for up to 2 years.

This motion sensor can be used as a ZigBee IAS (Intruder Alarm System) sensor and can be registered to a CIE (Control & Indicating Equipment) device to trigger an alarm when the CIE is armed.

Use it to control any ZigBee® device capable of on/off control such as Smartenit or other load controllers in response to motion, with consideration of ambient light.

The device can be mounted on a wall anywhere in range of the home automation network.

Status LED

Binding Button

Auxiliary Button

Benefits

- Compatible with ZigBee® devices, a wireless RF protocol that is rapidly becoming the standard for energy management. Enables appliances to become part of the smart ecosystems of tomorrow.
- Compatible with devices that use the on/off cluster. This includes lights, pumps, pool heaters, electric vehicle chargers, air conditioners, etc.
- Equipped with a temperature sensor
- Can be bound easily to control devices even without the intermediary of a network controller
- Small size and wireless operation means easy retrofit ability and low installation cost
- Tested to FCC standards

SPECIFICATIONS:

Electrical & Environmental	
Operating Voltage:	Two AA batteries
Communication Range:	Up to 120 m (line of sight)
Detection Coverage:	@ 12 m - Hor. 30°; Ver. 60° @ 8 m - Hor. 60°; Ver. 60° @ 5 m - Hor. 110°; Ver. 60°
Temperature:	-10—50° Celcius
Humidity:	95% RH
Mechanical	
Size:	4.92" L x 3.15" W x 3.5" H
Weight:	4.8 Oz.
Mounting:	Swivel bracket screw mounted to wall. Recommended height 7 ft.
Operation	
ZigBee Type:	IAS Zone, On/Off, Temp Sensor

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ZigBee Profile:

ZBMS3-1 uses the Home Automation profile, enabling inter-operability with HA certified devices from other manufacturers.

The Smartenit Manufacturer ID issued by the ZigBee Alliance is 0x1075

Details for the HA clusters implemented can be found below:

Commands to these clusters follow the specifications of the ZCL document.

HA Profile (0x0104)
ZigBee Device ID: EP 1 - IAS Zone (0x0402), EP 2 - On/Off Switch (0x0000), EP 3 - Temperature Sensor (0x0302)

Cluster ID:	End Point	Cluster	Client/ Server	Description
0x0000	1	Basic	Server	Attributes for determining basic information and setting and enabling device
0x0001	1	Power Configuration	Server	Attributes for determining more detailed information about a device's power source(s), and for configuring under/over voltage alarms
0x0003	1, 2 & 3	Identify	Server	Attributes and commands for putting a device into Identification mode (e.g. flashing a light)
0x0006	2	On/Off	Client	Attributes and commands for switching device. Commands: 0x00—Off 0x01—On 0x02—Toggle
0x0015	1	Commissioning	Server	Attributes and commands pertaining to the commissioning and management of ZigBee devices operating in a network.
0x0020	1	Poll Control	Server	A mechanism for the management of an end device's MAC Data Request rate.
0x0402	3	Temperature Measurement	Server	Attributes and commands for temperature measurement
0x0500	1	IAS Zone	Server	Attributes to interface to the functionality of an IAS security zone device.
0x0B05	1	Diagnostics	Server	Allows the operation of the ZigBee PRO stack to be followed over time.

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