The term multi-sensor in home automation is normally a motion sensor that has other sensor parameters built into it. Presently, in the Australian market, there are 3 main flavours of multi-sensors, Dome, Fibaro and Aeotec. Fortunately, all three are quite different which makes the choice quite easy. Aesthetically, the Fibaro and Dome look quite similar and the Aeotec is a bit boxy, however, this makes it convenient for shelf placement instead of mounting.

Battery

Battery life is often a factor of two things. Firstly, the number of sensors functions you're employing and secondly, how often you are reading these sensors. So, if you are reading all the Aeotec sensors every 2 minutes, you will have a very short battery life. All 3 multi-sensors use the 500 series Z-Wave chip which is very efficient and has a good range however, the Aeotec requires 2 batteries whilst the Fibaro and Dome only require 1. This could be why they have the port and cable for a USB supply, however, running power cables and USB adaptors throughout a house to all the motion sensor locations is not ideal. You could, if you really wanted to, wire a power adaptor to the Fibaro or Domes battery lugs to make it mains powered, but that does seem rather drastic. In addition to this, the Aeotec does not come with batteries, so you'll also need to factor in approximately $10 for 2 batteries.

Sensors

The Aeotec really shines with its 6 sensors. The humidity sensor makes it quite ideal or placement in a laundry or bathroom where it could be utilised to control an extractor fan. The Dome, unfortunately, only has the motion and light sensing which makes it perfect for employment as a night light sensor and to be fair, the Dome is ~40% cheaper than its nearest competitor.

Parameters

Fibaro and Aeotec have an excellent selection of parameters with Fibaro having a strong focus on associations which makes sense for a motion sensor. The Dome sensor has a basic, albeit sufficient, set of parameters to cater for the 2 sensors.

Mounting

The Aeotec employs a 2 screw wall attachment as can be seen in the photo above and the Fibaro has a single screw attachment. The Dome however can be mounted by screws or double sided tape which is supplied. I personally have Dome sensors throughout my house, both wall and ceiling mounted. Initially I double sided all of them and the ceiling one feel off. I the screwed it on and as such would recommend this for ceiling ones. In the Domes defence, we have high ceilings and the Dome survived the fall without a scratch. The wall ones have never come away. There is also the option of using a recessor as pictured below. These retail at ~$25inc.

Price

I feel that all these sensors are well priced based on their features. The Dome is easily the cheapest and has the lowest feature set, but if you are to be using 8+ sensors and/or just need basic functions, this is a bulletproof sensor that is reliable and has fantastic battery life. As earlier discussed, the Aeotec has the most sensors and can be used in some applications where the other 2 cannot e.g. humidity, UV sensing, USB powering. The Fibaro is the dearest, however, it has a ton of parameters, looks great, and is very high quality.

	Aeotec Multi Sensor 6	Fibaro Multi Sensor	Dome Multi Sensor
Motion	yes	yes	yes
Light sensing	yes	yes	yes
Temp Sensing	yes	yes	no
Humidity	yes	no	no
Vibration	yes	yes	no
UV sensing	yes	no	no
Battery	2 X CR123A	1 X CR123A	1 X CR123A
Battery life	up to 2 years	not stated	up to 3 years
Ext power supply	via USB	no	no
Visual Motion LED	Yes	RGB configurable	yes
Encrypted comms	yes	yes	no
RRP inc gst	$99	$129	$69.30

HELPFUL TIPS

Aeotec multi sensors, by default, when triggered, stays active for 4 minutes. We recommend changing parameter 3 to a value of 20 (default is 240) to drop it to 20sec.

Dome have a removable front. This can be useful if you would like to narrow the area the Dome is monitoring. In such a case, simply apply tape to the inside of the removable lens.

Fibaro have a parameter which allows to to set how many triggers are required for the sensor to trip the gateway. Parameter 3 sets the number of pulse for a trip (default is 2, max is 4), and parameter 4 sets time interval these same pulses must happen within (default is 12sec). If there are pets in the house, it can be a good idea to raise these settings e.g. 4 pulses over 12sec.

A good safety tip can be, on the Aeotec and Fibaro, to set a scene for an early fire warning if a room gets too hot.

Multi-sensors poll occasionally to update temperature, light levels etc. The frequency of this polling can be set in the parameters. It's a good idea to poll as infrequently as possible to extend battery life.

Do not employ more sensor channels within the multisensor than you need to monitor as this will dramatically shorten the battery life.