

# Valence Pod Detection System: Access Point

The Access Point and Antennas are mounted on an intersection pole or mast-arm, providing two-way wireless communication between the Pods and Base Station. The unit may be installed in any location that provides adequate signal coverage to the sensors and the Base Station; a wired connection to the Base Station is available if there is an occlusion. There are four radios: three for broadcasting to the Pods and one for broadcasting to the Base Station.

A single omnidirectional Antenna covers the Pods located at the intersection. Long-range directional Antennas are used for advance detection when the Pods that are located up to 700 feet away. These long-range Antennas are typically mounted back-to-back on the mast-arm. Use of these long-range Antennas eliminates the need for repeaters.



## FEATURES

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Radio communications	<ul style="list-style-type: none"> <li>To and from the Access Point</li> <li>Three radio modules talk to and from up to 130 wireless sensors</li> </ul>
Relay of sensor data	<ul style="list-style-type: none"> <li>Buffers and relays data to the sensors or Base Station</li> <li>Wireless or wired EIA-485 connectivity between the Base Station and the Access Point</li> </ul>
Master timebase for all supported wireless sensors	<ul style="list-style-type: none"> <li>Synchronized through the Access Point</li> <li>Keeps the sensors synchronized</li> </ul>
Radio signal quality measurements	<ul style="list-style-type: none"> <li>Receive signal strength indicator (RSSI) of Pod link</li> <li>RSSI of Base Station wireless link</li> </ul>
Firmware upgrades	<ul style="list-style-type: none"> <li>Can be upgraded through the Base Station</li> <li>Can deliver upgrades to all other Pods</li> </ul>

## SPECIFICATIONS

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Dimensions	6.3"H x 7.9"W x 7.9"D
Frequency band	<ul style="list-style-type: none"> <li>2400 to 2483.5 MHz for Base Station wireless link</li> <li>902 to 928 MHz (ISM unlicensed band) for Pod wireless link</li> </ul>
Frequency channels	<ul style="list-style-type: none"> <li>16 for Base Station wireless link</li> <li>60 for Pod wireless link</li> </ul>
Channel Bandwidth	<ul style="list-style-type: none"> <li>2 MHz for Base Station wireless link</li> <li>430 KHz for Pod wireless link</li> </ul>
Ambient operating temperature range	-35°F to 167°F (-37°C to 75°C)

## PART NUMBERS

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Access Point, 3 radios	50284-2003
Access Point kit	50284-2103