

# zPoint Products: Information on zPoints

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## 1. Introduction to zPoint Products' Wireless ZigBee end-points

zPoint Products is a division of Techsol, a North American (NAFTA) corporation specializing in **low-cost embedded technology design and board fabrication**. We offer a variety of products and programs that will **save you money installing Building Automation Systems** using our **proven ZigBee-powered platform to mitigate risks**. In addition, our solutions provide both **energy cost savings** and **increased comfort and convenience** for your customers.

### 1.1. The Evolution of the zPoint

With the official release of the ZigBee standard in 2005, the technology was in place to create such solutions, but on our terms, which means **using open standards wherever possible**. Thus, **the zPoint is a monitored or controlled end-point, connected by ZigBee wireless mesh-networking, but communicating with other open systems** and supporting a variety of messaging protocols including native ZigBee ZDP, Mod-bus, and ANSI 709.1 profiles — the object-based standard for device connectivity within the Building Automation industry.

## 2. The 4 Most Common zPoints

zPoint Products makes several devices. Here are the 4 most common types of single I/O points:

- Digital INPUT
- Digital OUTPUT
- Analog INPUT
- Analog OUTPUT

In general, inputs are dumb devices, whereas outputs may have smarts (running PID loops, for example).

Also, inputs can be powered externally or by batteries. But outputs typically draw too much power for the output actuator to be battery powered.




Plus, the device that the Output zPoints control (such as lamps, dampers, solenoids, etc.) need power anyway, so there is already power there, making a battery option redundant.

#### Note:

All zPoints come pre-loaded with software to enable functionality out-of-the-box.

### 2.1. Single Digital Input zPoint



This Module is designed to fit within a single-gang electrical box. It features a pair of contacts for one input, plus a variety of choices for the power supply.

Photo	Part number	Description of differentiating features	Applications
 <p data-bbox="272 879 503 936">first zPoint board in electrical box</p>	38-000xxx-xxx	<p><b>Digital Input zPoint</b> support a "dry-contact" style input. This model is powered by a <b>24 volt supply</b> (10 to 35 volts, AC or DC)</p>	<p>Here are some of the applications where this module can be deployed:</p> <ul data-bbox="1146 632 1398 772" style="list-style-type: none"> <li>• Dry-contact switch</li> <li>• Relay closure</li> <li>• Magnetic (reed) switch</li> <li>• Alarm monitoring</li> </ul>
 <p data-bbox="272 1320 503 1377">first zPoint board in electrical box</p>	38-000xxx-xxx	<p><b>Digital Input zPoint</b> support a "dry-contact" style input. This model is powered by a <b>120 volt supply</b> (100 to 135 volts AC)</p>	<p>Here are some of the applications where this module can be deployed:</p> <ul data-bbox="1146 1073 1398 1213" style="list-style-type: none"> <li>• Dry-contact switch</li> <li>• Relay closure</li> <li>• Magnetic (reed) switch</li> <li>• Alarm monitoring</li> </ul>
	38-000xxx-xxx	<p><b>Digital Input zPoint</b> support a "dry-contact" style input. This model is powered by a <b>pair of "AA" Batteries</b></p>	<p>Here are some of the applications where this module can be deployed:</p> <ul data-bbox="1146 1514 1398 1654" style="list-style-type: none"> <li>• Dry-contact switch</li> <li>• Relay closure</li> <li>• Magnetic (reed) switch</li> <li>• Alarm monitoring</li> </ul>

first zPoint board in electrical box			
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## 2.2. Single Digital Output zPoint

This Module is designed to fit within a single-gang electrical box. It features a pair of contacts for one output, plus a variety of choices for the power supply.

Photo	Part number	Description of differentiating features	Applications
 <p>first zPoint board in electrical box</p>	38-000xxx-xxx	<p><b>Digital Output zPoint</b> supporting a "dry-contact" style output. This model is powered by a <b>24 volt supply</b> (10 to 35 volts, AC or DC)</p>	<p>Here are some of the applications where this module can be deployed:</p> <ul style="list-style-type: none"> <li>• Lamp Control</li> <li>• Motor Control</li> <li>• Remote Fan Switch</li> <li>• Alarm Sounding</li> </ul>
 <p>first zPoint board in electrical box</p>	38-000xxx-xxx	<p><b>Digital Output zPoint</b> supporting a "dry-contact" style output. This model is powered by a <b>120 volt supply</b> (100 to 135 volts AC)</p>	<p>Here are some of the applications where this module can be deployed:</p> <ul style="list-style-type: none"> <li>• Lamp Control</li> <li>• Motor Control</li> <li>• Remote Fan Switch</li> <li>• Alarm Sounding</li> </ul>



## 2.3. Single Analog Input zPoint

This Module is designed to fit within a single-gang electrical box. It features a pair of contacts for one input, plus a variety of choices for the power supply.

Photo	Part number	Description of differentiating features	Applications
 <p data-bbox="269 789 503 846">first zPoint board in electrical box</p>	38-000xxx-xxx	<p data-bbox="846 432 1114 636"><b>Analog Input zPoint</b> support a "4-20 mA" style input. This model is powered by a <b>24 volt supply</b> (10 to 35 volts, AC or DC)</p>	<p data-bbox="1144 443 1414 527">Here are some of the applications where this module can be deployed:</p> <ul data-bbox="1144 537 1325 600" style="list-style-type: none"> <li data-bbox="1144 537 1325 562">• User "knob"</li> <li data-bbox="1144 569 1325 594">• Light Meter</li> </ul>
 <p data-bbox="269 1230 503 1287">first zPoint board in electrical box</p>	38-000xxx-xxx	<p data-bbox="846 873 1114 1056"><b>Analog Input zPoint</b> support a "4-20 mA" style input. This model is powered by a <b>120 volt supply</b> (100 to 135 volts AC)</p>	<p data-bbox="1144 884 1414 968">Here are some of the applications where this module can be deployed:</p> <ul data-bbox="1144 978 1325 1041" style="list-style-type: none"> <li data-bbox="1144 978 1325 1003">• User "knob"</li> <li data-bbox="1144 1010 1325 1035">• Light Meter</li> </ul>
 <p data-bbox="269 1671 503 1728">first zPoint board in electrical box</p>	38-000xxx-xxx	<p data-bbox="846 1314 1114 1497"><b>Analog Input zPoint</b> support a "4-20 mA" style input. This model is powered by a <b>pair of "AA" Batteries</b></p>	<p data-bbox="1144 1325 1414 1409">Here are some of the applications where this module can be deployed:</p> <ul data-bbox="1144 1419 1325 1482" style="list-style-type: none"> <li data-bbox="1144 1419 1325 1444">• User "knob"</li> <li data-bbox="1144 1451 1325 1476">• Light Meter</li> </ul>

## 2.4. Single Analog Output zPoint

This Module is designed to fit within a single-gang electrical box. It features a pair of contacts for one output, plus a variety of choices for the power supply. The Output ranges from 0-10 volts, under remote command.

Photo	Part number	Description of differentiating features	Applications
 <p data-bbox="272 997 506 1054">first zPoint board in electrical box</p>	38-000xxx-xxx	<p data-bbox="849 638 1123 844"><b>Analog Output zPoint</b> supporting a "4-20 mA" style output. This model is powered by a <b>24 volt supply</b> (10 to 35 volts, AC or DC)</p>	<p data-bbox="1148 638 1416 730">Here are some of the applications where this module can be deployed:</p> <ul data-bbox="1148 739 1367 831" style="list-style-type: none"> <li>• Lamp Control</li> <li>• Damper Control</li> <li>• Valve Control</li> </ul>
 <p data-bbox="272 1438 506 1495">first zPoint board in electrical box</p>	38-000xxx-xxx	<p data-bbox="849 1079 1123 1285"><b>Analog Output zPoint</b> supporting a "4-20 mA" style output. This model is powered by a <b>120 volt supply</b> (100 to 135 volts AC)</p>	<p data-bbox="1148 1079 1416 1171">Here are some of the applications where this module can be deployed:</p> <ul data-bbox="1148 1180 1367 1272" style="list-style-type: none"> <li>• Lamp Control</li> <li>• Damper Control</li> <li>• Valve Control</li> </ul>

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