Control Panels

Control Panels for Commercial Applications

Control panels provide the central processing and logic for an integrated system. In a typical system, there are four major functions: inputs, outputs, user interfaces and communication. When an alarm initiating device, such as a motion detector, glassbreak sensor, manual fire alarm box or smoke detector is activated into alarm, it changes the state of the zone input to which it is connected. The zone input reports the status change to the control panel, which then uses its communication method to report the alarm to a central monitoring facility. In addition, the control panel activates local sounders and other notification appliances and provides status information at user interfaces such as keypads and fire alarm command centers where the system can be controlled and interrogated.

Control Panels for Fire Alarm Systems

Control panels listed in the Fire Alarm and Life Safety section are used for fire alarm applications or for systems that include life safety functionality.
Honeywell offers three effective connection strategies that help you greatly reduce installation costs and maintenance of your customer’s system.

**Conventional Strategy**

There are a number of installation and design strategies for connecting sensors to the system. One common method is to design the system using conventional sensors connected to individual cables routed back to the control panel. Also known as a centralized or home-run approach, this is a typical approach when using conventional sensors that provide a dry-contact output.

When installing devices on the system, you can design a single zone to accept one or more devices connected together. When more than one device is connected to a zone, the system only provides identification for the zone itself. When installing a single device to each zone, each device becomes an individually identified zone.
**V-Plex® Strategy**

Honeywell dealers minimize installation costs and improve system reliability by using V-Plex. V-Plex provides a two-wire circuit that connects to multiple devices.

By routing the V-Plex cable from device to device, you will save on system costs because the two-wire V-Plex data bus can collect most or even all of the zone inputs required by the system. The V-Plex bus supports zone inputs and relay outputs, so it provides two-way functionality, allowing the system to sense and respond using the same pair of wires.

**Minimize Installation Costs**
- A single pair does the work of many home-run cables
- You will use fewer conduit runs and smaller pipe sizes
- You will use fewer conduit fasteners and couplers
- You will not have to pay as much labor for installing cable and conduit

**Better System Reliability Means Less Costly Maintenance**
- Fewer cables means fewer opportunities for shorts and cable breaks
- The bus provides power for compatible sensors that detect motion, glassbreak, smoke and other conditions. Using compatible devices minimizes the need for additional power supplies and reduces long-term maintenance costs.
- When bus isolation modules are used, the system helps you to troubleshoot errors
- Fully addressable devices make finding malfunctioning sensors much easier and faster than in conventional systems

**Wireless Strategy**

Another common method is to design the system using wireless sensors routed back to the control panel using a wireless signal. The control panel uses a wireless receiver to receive messages from transmitters connected to devices.

When installing devices on the system you can design a single wireless transmitter to accept one or more devices connected together. When more than one device is connected to a transmitter, the system only provides identification for the transmitter itself. When installing a single device to each transmitter, each device becomes an individually identified zone.

Honeywell offers supervised transmitters that are UL Listed for commercial burglary and fire alarm applications. The transmitters feature tamper switches on the cover and on the back and are fully supervised with regular check-in messages and battery supervision. In addition, Honeywell offers devices with wireless components built inside. These devices require no additional universal transmitter to be installed.

**Minimize Installation Costs**
- Wireless devices minimize the need for power supplies on the system
- There is a minimal cost for materials and labor related to wire and cable
- You will not need conduit runs for wireless devices

**Better System Reliability Means Less Costly Maintenance**
- Fewer cables means fewer opportunities for shorts and cable breaks
- A reduction in power supplies means fewer rechargeable batteries need to be replaced through time
- Fully addressable wireless devices make finding malfunctioning sensors much easier and faster than in conventional systems
The VISTA-21iP is ideal in intrusion detection applications such as commercial offices, small warehouses, temporary and permanent school buildings, retail shops and restaurants. With the VISTA-21iP’s built-in AlarmNet Internet Communicator, you can now reduce the cost of telephone line connections, improve communication supervision and unlock the largest suite of integrated Total Connect remote control functions available in the industry today! Add to this an optional snap-in GSM communicator, and the system can offer additional communication pathways to the monitoring station, providing the most robust connection to monitoring services. When ensured communication counts, you can count on the VISTA-21iP.

The VISTA-21iP provides up to 48 individual zone inputs for detection purposes. Users can split the building’s protection to arm and disarm up to two separate partitions, and a common partition, so you can separate the office from the warehouse, or the office from public areas. This allows users to arm the office while the public areas are in business, or to arm the warehouse after the delivery staff departs, leaving the office disarmed for administrators that work throughout the day. Optional remote status and control options allow business owners to manage the system from home or other locations using an Internet browser, cell phone, PDA or other modern mobile device. The VISTA-21iP provides eight on-board zone inputs and supports up to 40 ECP zone expansion devices and/or up to 40 wireless sensing devices – so it is ideal for small to medium sized commercial locations.

### SPECIFICATIONS

#### Capabilities:
- Users: 48
- User levels: 5
- History events: 100
- Schedules: 32
- Partitions: 2

#### User interfaces:
- Total keypads: 8
- Graphic touchscreen keypads: 4
- AlarmNet Total Connect: optional
- Telephone: optional
- Wireless arm/disarm: optional

#### Zones:
- On-board zones: 8
- ECP zones: 40
- Wireless zones: 40
- Total System zones: 48
- ECP relays: 16 Form C rated 1A at 12VDC

#### Communication options:
- On-board dialer: included
- On-board Internet
- GSM: optional snap-in module

#### Programming options:
- Keypad
- Telephone
- Internet
- GSM

#### Power:
- Power input: 16.5VAC 40VA
- Standby battery: 12VDC 7AH sealed lead
- Operating current: 100mA Idle, 110mA Active
- Aux power output: 10.2-13.8 VDC at 600mA
- Bell output: 12VDC at 2A

#### Environmental:
- Temperature: 32° F to 122° F (0° C to 50° C)
- Humidity: 85% non-condensing

#### Physical:
- Enclosure dimensions: 12.5" W x 14.5" H x 3" D

#### Listings:
- ETL Listed to UL365, UL609, UL985, UL1610, UL1635, UL1023, CAN/ULC-S545, CAN/ULC-S303, CAN/ULC-S304, CAN/ULC-C1023
**The VISTA-20P is ideal in environments such as commercial offices, warehouses, schools, retail shops and restaurants.** It provides up to 48 individual zone inputs for detection purposes. Users can split the building’s protection to arm and disarm up to two separate partitions, and a common partition, so you can separate the office from the warehouse, or the office from public areas. This allows users to arm the office while the public areas are in business, or to arm the warehouse after the delivery staff departs, leaving the office disarmed for administrators that work throughout the day.

Optional remote status and control options allow business owners to manage the system from home or other locations using an Internet browser, cell phone, PDA or other modern mobile device.

The VISTA-20P provides eight on-board zone inputs and supports up to 40 ECP zone expansion devices and/or up to 40 wireless sensing devices. It is ideal for small to medium commercial locations.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Capabilities:</th>
<th>Communication options:</th>
<th>Environmental:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users: 48</td>
<td>On-board dialer: included</td>
<td>Temperature: 32° F to 122° F (0° C to 50° C)</td>
</tr>
<tr>
<td>User levels: 5</td>
<td>GSM: optional</td>
<td>Humidity: 85% non-condensing</td>
</tr>
<tr>
<td>History events: 100</td>
<td>Internet: optional</td>
<td></td>
</tr>
<tr>
<td>Schedules: 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partitions: 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>User interfaces:</th>
<th>Programming options:</th>
<th>Physical:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total keypads: 8</td>
<td>Keypad</td>
<td>Enclosure dimensions: 12.5” W x 14.5” H x 3” D</td>
</tr>
<tr>
<td>Graphic touchscreen keypads: 4</td>
<td>Telephone</td>
<td></td>
</tr>
<tr>
<td>AlarmNet Total Connect: optional</td>
<td>Internet</td>
<td></td>
</tr>
<tr>
<td>Telephone: optional</td>
<td>GSM</td>
<td></td>
</tr>
<tr>
<td>Wireless arm/disarm: optional</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zones:</th>
<th>Power:</th>
<th>Listings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-board zones: 8</td>
<td>Power input: 16.5VAC 40VA</td>
<td>ETL Listed to UL365, UL609, UL985, UL1610, UL1635, UL1023, ULC-S545, CAN/ULC-S303, CAN/ULC-S304, CAN/ULC-C1023</td>
</tr>
<tr>
<td>ECP zones: 40</td>
<td>Standby battery: 12VDC 7AH</td>
<td>CSFM Certificate Number: 7167-1645:150</td>
</tr>
<tr>
<td>Wireless zones: 40</td>
<td>sealed lead</td>
<td></td>
</tr>
<tr>
<td>Total System zones: 48</td>
<td>Operating current: 100mA Idle, 110mA Active</td>
<td></td>
</tr>
<tr>
<td>ECP relays: 16 Form C rated 1A at 12VDC</td>
<td>Aux power output: 10.2-13.8 VDC at 600mA</td>
<td></td>
</tr>
<tr>
<td>Bell output: 12VDC at 2A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Expanding Zones on the VISTA-20P and VISTA-21iP

VISTA-20P and VISTA-21iP control panels offer an exclusive ability to add zone inputs and relay outputs using the four-wire keypad bus. This allows designers to expand the system to meet the zone input or relay output requirements for the location being protected.

You can connect modules shown in this section to the VISTA-20P or VISTA-21iP ECP bus.
Description:
Addressable eight-zone expander for Honeywell ECP bus addressable systems

Product advantages:
- Can be located anywhere along the four-wire addressable ECP bus
- Simple DIP switch addressing to select range of zone numbers
- Enclosure splice box included for easy mounting and tamper protection
- Adds up to eight class B zone inputs to an ECP bus addressable system, each with 1K end-of-line resistors
- Class B loops provide a broad, 300 ohm tolerance Supervised for open, shorted and normal circuit conditions
- UL Listed for commercial burglary applications

Recommended use:
Use for commercial systems when deploying conventional detectors in an ECP zone expandable system when using a centralized connection approach

Mounting recommendations:
- On a flat surface, centrally located to monitor up to eight zones from nearby detectors
- Locate anywhere on the ECP bus

Compatibility:
- All VISTA control panels that are compatible with ECP bus zone expandability such as VISTA-20P and VISTA-20PUL
- Not compatible with V-Plex control panels

Product dimensions:
6.438" W x 4.25" H x 1.25" D

Power:
- Supplied by the control panel's four-wire ECP bus: 30mA at 12VDC
- External power supply option: 30mA at 12VDC (maximum)

Temperature:
32° F to 122° F (0° C to 50° C)

Humidity:
5-95% relative, non-condensing

Included items:
Eight 1K end-of-line resistors

Listings:
UL1610, UL1635, UL464, UL609, UL365, UL1641
Description:
Addressable eight-zone expander with two relay outputs for Honeywell ECP bus addressable systems

Product advantages:
- Can be located anywhere along the four-wire addressable ECP bus
- Simple DIP switch addressing
- Enclosure splice box included for easy mounting and tamper protection
- Adds up to eight class B zone inputs to an ECP bus addressable system, each with 1K end-of-line resistors
- Class B loops provide a broad, 300 ohm tolerance
- Supervised for open, shorted or normal circuit conditions
- Add up to two relay outputs to the system
- UL Listed for commercial burglary applications

Recommended use:
Use for commercial systems when deploying conventional detectors in an ECP zone expandable system when using a centralized connection approach

Mounting recommendations:
- On a flat surface, centrally located to collect up to eight zones from nearby detectors
- Locate anywhere on the addressable ECP bus

Compatibility:
- All VISTA control panels that are compatible with ECP bus zone expandability such as VISTA-20P and VISTA-20PUL
- Not compatible with V-Plex control panels

Product dimensions:
6.438" W x 4.25" H x 1.25" D

Power:
- Supplied by the control panel’s four-wire ECP bus: 30mA at 12VDC (100mA max when relays are energized)
- External power supply option: 100mA at 12VDC (maximum)

Temperature:
32º F to 122º F (0º C to 50º C)

Humidity:
5-95% relative, non-condensing

Included items:
Eight 1K end-of-line resistors

Listings:
UL1610, UL1635, UL464, UL609, UL365, UL1641

![Diagram of Wired Zone Expander/Relay Module]
The VISTA-128BP is perfect in environments such as warehouses, schools, government offices and industrial locations. It provides up to 128 individual zone inputs for detection purposes. Users can split the building’s protection to arm and disarm up to eight separate partitions, including a common partition, so you can separate the occupied areas from unoccupied areas, or the office from public areas. For example, this allows users to arm the administration offices while the classrooms are occupied after hours, or to arm the cafeteria after the delivery staff departs, while leaving the gymnasium disarmed for public activities.

Optional remote status and control options allow building administrators to manage the system from home or other locations using an Internet browser, cell phone, PDA or other modern mobile device.

The wide variety of sensing devices that are compatible with the VISTA-128BP make it an ideal sensing, indicating and monitoring system for intrusion detection, access control and environmental status like temperature, water and humidity. This allows the system to extend into additional important facility status indications that assist local building management and maintenance professionals.

The VISTA-128BP provides nine on-board zone inputs and supports up to 119 V-Plex zone expansion devices and/or up to 127 wireless sensing devices. It is ideal for medium to large commercial and institutional locations.

### SPECIFICATIONS

**Capabilities:**
- Users: 150
- User levels: 5
- History events: 512
- Partitions: 8
- Access door readers: 8
- Outputs (relays): 96

**User interfaces:**
- Total keypads: 31
- Graphic touchscreen keypads: 3
- AlarmNet Total Connect: optional
- Telephone: optional
- Wireless arm/disarm: optional

**Schedules:**
- Output timers (end-user): 20
- Open/close: daily
- Access: 8
- Time-driven events: 20
- Holidays: date of year

**Zones:**
- On-board zones: 9
- V-Plex zones: 119

**Wireless zones:** 127
**Total System zones:** 128
**V-Plex relays:** 96 Form C rated 2A at 28V AC/DC

**Communication options:**
- On-board dialer: included
- GSM: optional
- Internet: optional

**Programming options:**
- Keypad
- Telephone
- Internet
- GSM

**Power:**
- Power input: 16.5 VAC 40VA
- Standby battery: 12VDC 7AH sealed lead
- Operating current: 250mA Idle, 330mA Active
- Aux power output: 10.2-13.8VDC at 750mA
- Bell output: 12VDC at 1.7A

**Environmental:**
- Temperature: 32° F to 122° F (0° C to 50° C)
- Humidity: 85% non-condensing

**Physical:**
- Enclosure dimensions: 12.5" W x 14.5" H x 3" D

**Listings:**
- UL Listed to UL1610, UL1635, UL464, UL609, UL365
- ETL Listed to UL365, UL609, UL985, UL1610, UL1635, UL1023, CAN/ULC-S545, CAN/ULC-S303, CAN/ULC-S304, CAN/ULC-C1023, CAN/ULC-S527
- CSFM Certificate Number: 7167-1645:108
The VISTA-250BP is effective in environments such as large warehouses, schools, government offices and industrial locations. It provides up to 250 individual zone inputs for detection purposes. Users can split the building’s protection to arm and disarm up to eight separate partitions, and a common partition, so you can separate the occupied areas from unoccupied areas, or the office from public areas. For example, this allows users to arm the maintenance offices while the laboratories are occupied after hours, or to arm the warehouse after the shipping staff departs, while leaving the break room disarmed for employee activities.

Optional remote status and control options allow building administrators to manage the system from home or other locations using an Internet browser, cell phone, PDA or other modern mobile device.

The wide variety of sensing devices that are compatible with the VISTA-250BP make it an ideal sensing, indicating and monitoring system for intrusion detection, access control and environmental status like temperature, water and humidity. This allows the system to extend into additional important facility status indications that assist local building management and maintenance professionals.

The VISTA-250BP provides nine on-board zone inputs and supports up to 241 V-Plex zone expansion devices and/or up to 249 wireless sensing devices. It is ideal for large institutional and industrial locations.

### SPECIFICATIONS

**Capabilities:**
- Users: 250
- User levels: 5
- History events: 1000
- Partitions: 8
- Access door readers: 15
- Outputs (relays): 96

**User interfaces:**
- Total keypads: 31
- Graphic touchscreen keypads: 3
- AlarmNet Total Connect: optional
- Telephone: optional
- Wireless arm/disarm: optional

**Schedules:**
- Output timers (end-user): 20
- Open/close: daily
- Access: 8
- Time-driven events: 20
- Holidays: date of year

**Zones:**
- On-board zones: 9
- V-Plex zones: 241
- Wireless zones: 249
- Total System zones: 250
- V-Plex relays: 96 Form C rated 2A at 28V AC/DC

**Communication options:**
- On-board dialer: included
- GSM: optional
- Internet: optional

**Programming options:**
- Keypad
- Telephone
- Internet
- GSM

**Power:**
- Power input: 16.5VAC 40VA
- Standby battery: 12VDC 7AH sealed lead
- Operating current: 250mA Idle, 330mA Active
- Aux power output: 10.2-13.8VDC at 750mA
- Bell output: 12VDC at 1.7A

**Environmental:**
- Temperature: 32° F to 122° F (0° C to 50° C)
- Humidity: 85% non-condensing

**Physical:**
- Enclosure dimensions: 12.5" W x 14.5" H x 3" D

**Listings:**
- UL Listed to UL1610, UL1635, UL464, UL609, UL365
- ETL Listed to UL365, UL609, UL985, UL1610, UL1635, UL1023, CAN/ULC-S545, CAN/ULC-S303, CAN/ULC-S304, CAN/ULC-C1023
- CSFM Certificate Number: 7167-1645:108

Call 1-800-467-5875 for more information.
## Commercial Burglary Control Panels Comparison Chart

<table>
<thead>
<tr>
<th></th>
<th>VISTA-20P, VISTA-21iP*</th>
<th>VISTA-128BP</th>
<th>VISTA-250BP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zone Information</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Zones</td>
<td>48</td>
<td>128</td>
<td>250</td>
</tr>
<tr>
<td>HW Standard</td>
<td>8 (15 with zone doubling)</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>ECP Expansion</td>
<td>40</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>5800 Wireless Expansion</td>
<td>40</td>
<td>127</td>
<td>249</td>
</tr>
<tr>
<td>V-Plex Devices</td>
<td>N/A</td>
<td>119</td>
<td>241</td>
</tr>
<tr>
<td><strong>Fire</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-wire Smokes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Four-wire Smokes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Smoke Reset</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Keypads</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Keypads</td>
<td>8</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Maximum Alpha Keypads</td>
<td>8</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Maximum Graphic Touchscreens**</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Keypad Types</td>
<td>Fixed, Alpha &amp; Graphics</td>
<td>Alpha &amp; Graphics</td>
<td>Alpha &amp; Graphics</td>
</tr>
<tr>
<td>Number of Users</td>
<td>48</td>
<td>150</td>
<td>250</td>
</tr>
<tr>
<td>Keypads</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>System Configuration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aux Power</td>
<td>600mA</td>
<td>750mA</td>
<td>750mA</td>
</tr>
<tr>
<td>Alarm Power</td>
<td>2A</td>
<td>1.7A</td>
<td>1.7A</td>
</tr>
<tr>
<td><strong>Partitioning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Partitions</td>
<td>2</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Reporting Format</td>
<td>Contact ID Low Speed Express</td>
<td>Contact ID Low/High Speeds Express</td>
<td>Contact ID Low/High Speeds Express</td>
</tr>
<tr>
<td>Line Fault</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Additional Features</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outputs (relays)</td>
<td>48</td>
<td>96</td>
<td>96</td>
</tr>
<tr>
<td>Access Control</td>
<td>N/A</td>
<td>8 doors</td>
<td>15 doors</td>
</tr>
<tr>
<td>RS-232 Support</td>
<td>N/A</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Total Connect Support</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CO Zone Support</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Schedules</td>
<td>32</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Panel Linking</td>
<td>N/A</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Printer Output</td>
<td>N/A</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Event Log</td>
<td>100</td>
<td>512</td>
<td>1000</td>
</tr>
<tr>
<td>Programming</td>
<td>Keypad/Telco</td>
<td>Keypad Serial Port/Telco</td>
<td>Keypad Serial Port/Telco</td>
</tr>
<tr>
<td>Optional AlarmNet Upload/Download</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Downloader</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Compliance Listings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*VISTA-20P and VISTA-21iP are ETL Listed

**Activating Total Connect Services consumes one AUI keypad, reducing the maximum number of keypads by one.