Honeywell Building Automation System A1 Series

Honeywell (www.honeywell.com) is a Fortune 100 diversified technology and manufacturing company, serving customers worldwide with aerospace products and services; control technologies for buildings, homes and industry; turbochargers; and performance materials. Honeywell’s long history in China goes back to 1935 when it established its first franchise in Shanghai. Today, all of Honeywell’s three strategic business groups are represented in China, each having relocated their Asia Pacific headquarters to China. Honeywell has set up subsidiaries and joint ventures in more than 20 cities across the country, with approximately 12,000 employees in China.

Honeywell has been devoted to building automation systems for more than ten years, and it is the top 3 in the market of building automation. Since 2004, Honeywell has been awarded top first in intelligent Building System in China by an authoritative institution.

Mission:

With a whole brand new design of UI and working flow, containing numerous standard diagram and program applications, Honeywell Building Automation System A1 series have reduced the complications of designing and commissioning of BA system, as well as achieving a significant energy savings approach from its wisdom.

Our products, services and technologies are applied to 120 million homes, 10 million buildings and thousands of manufacturing and industrial plants. The remarkable features of our products are saving energy and being environmental friendly. More than 60% of our products and services enhance energy utilization of not only to buildings, but also to commercial and industrial facilities.
Easy to Design - Standard, Fast and Normative

Automatically generate standardized wiring diagram and reports according to standard input / output point table

Saving 40% time for deepen design.

Automatically generate standard wiring diagram greatly reduce designing time

System software contains standardized point table configuration tools
Input actually AI/AO/DI/DO points into the point table
(the color of controller terminals matched with the head of point table)

Select
- Equipment type
- Equipment Location
- Network setting

Generate
- Point table
- Equipment list
- User interface

Changing normal procedures into a standardized one-stop service,
increasing the efficiency, reducing error rate,
improving the design rationality and standardization of the building automation system

Traditional working flow of
Building Automation design

- Configuring controllers
- Drawing system architecture diagram
- Drawing DDC wiring diagram
- Setting I/O point of controllers
- Programming
- Installation and running

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Standardized working flow of
Building Automation design by A1 series

- Configuring controllers
- Setting I/O point of controllers
- Diagrams of application
  - Schematic
  - Standard DDC wiring diagram
  - Programming
- User interface Designing
- Installation and running
Easy to Install - Standard, Normative and Safe

Standardized and normative installation improves at least 20% of the efficiency.

How to ensure the quality of installation when the on-site engineers are of different levels?

Our answer is to start with standardization. Standard application and wiring diagrams can make the installation more normative and more standard.

- **Humanistic design of colorful terminals**

  Standard and colorized serial number wiring terminal provide ease for installers, minimizes guidance, understanding and the work for cross-check. The standard point diagram and its corresponding function areas in controllers are represented by the same color, and each port corresponds to a serial number.

  The design of plug & play terminals supporting a larger space for wiring, providing more convenience for product and part's replacement.

- **24VAC anti-mistake function**

  In order to prevent wiring errors effectively, besides the colorized codes with serial numbers allow easy identification, and even provides the function of preventing 24VAC being plugged mistakenly. Every terminal in the controllers can withstand 24VAC electrical voltage and will not suffer from abrupt breakdown, which ensures safety in field installation.
Easy to Commissioning - Standard, Simple and Smart

Reducing 40% effort and saving 30% cost

- Portable terminal: leave your laptops behind and enjoy travelling light
  
  Portable terminal of A1 series
  Compliance Honeywell proprietary Syk bus
  The portable terminal can be connected with field controllers through two non-polar cables directly.

- Intelligent Supervisor software

  More standardized template
  More humanistic operation
  More standardized working flow

- HIMA: As software provides standard point table template

  Standardized working flow will reduce 20% workload of commissioning on jobsite, decreasing the difficulty of commissioning, improve the accuracy and shorten the project duration enormously.

With total weight of < 300g, the device is small and exquisite, and easy to put it in the pocket or a bag.

Built-in magnet on the rear cover can be conveniently absorbed on DDC box.

It is convenient for engineers to wire or test on jobsite and also reduced their workload by 20%.

The convenient commissioning tools are very popular to engineers who work on jobsite.

Supervisor provides a simply communication platform that enable users to master commissioning technology in a short time.

If the selection of application number, the terminal type or controller type is wrong, HIMA-AS software can provide error prompt message for the engineers.

If you are still puzzled with the commissioning, Honeywell building automation system A1 series will free you from these troubles. Programming is only about making choices and blank filling, all you need to do is to select the proper application for your equipments among standard applications to download in the system.
Easy to Service - Flexible, Perfect

Shorten lead time, flexible allocation and reduce maintenance costs by 30%.

The shape of controllers is light and thin, lead time is short, and allocation is flexible and can speed up RMA procedure.

- The information of project is complete and clear
  The whole set of diagrams (point table, wiring diagram, system architecture diagram) are stored in software, and the data can be updated and diagrams can be printed at any time.

- Easy to start, and fast in response to problems on jobsite
  Standardized diagrams, tables and working flow make the handover work of projects more simple and the maintenance service easier to start with. Standardized application programs free engineers from checking whether the logic of the programs is reasonable or not, and it makes the speed of solving problems 50% faster than that of traditional building automation.

The innovated user experience

The brand-new designed features such as equipments management, alarm and schedules, etc. enable property management staff to use them correctly and smoothly without formal training.

- High-level alarm:
  When there is a threat to the safety of staff in the buildings, causing serious loss of property or damaging electromechanical equipments, the system software will automatically and forcibly pop up windows of alarm information and inform the staff who’s on duty in monitoring center. Necessary information such as troubleshooting indicated by alarm guide and contacts improves the ability of property management staff to deal with emergencies, so as to ensure the safety of personnel and property in the building.

- Flattening design:
  Blending in flat design, a variety of new designs and elements of user experience, HIMAS software user interface is simple, friendly, highly interactive and easy to handle so that operator can master it within just a few days of operation. System can automatically generate summary sheets according to equipments and floors, provides a view of all building equipments status at a glance.

- Schedules management:
  Calendars operated via easy to use interface, operators can pre-setting holiday at one time whenever legal holidays are published, graphics-based operation of the weekly schedules managed by two modules of working day and non-working days. The start and stop time setting is similar to mobile alarms, connect the time schedule with equipment groups just through drag and drop.

- Smart navigation:
  Software has functions of guiding and smartly correcting for the work flow and configuration of commissioning, which can guide engineers finish the entire operation step by step according to standardized working flow.
Easy to upgrade
- Tailored-made, Selection Followed by Requirements

Save 20% initial capital investment compared with similar projects

- Reduce the occupancy rate of funds

  Complicated core and simplified operations are developing trend of the industry.

  Honeywell Building Automation System A1 series offer scalability for development and changes of actual content and the scale of projects, which gives full preparation to future expansion and upgrades to any project.

  Owners can tailor-made to fit their needs accordingly, lower investments and reducing occupancy costs.

- Keeping pace with the times, continue to improve

  Honeywell Building Automation System A1 series is built on JAVA platform, keeping pace with the latest computer trend.

  We capture new technology at any time, provide corresponding ports and tools. With the development and potential for large scale expansion in building automation industry and computer technology, It will be getting simpler, more humanistic and more intelligent.

- Convenient downloading and Upgrading

  Honeywell’s official website offers upgrade service package for commissioning tool. Software is backward-compatible, so that engineers can download and upgrade the software easily.
**Native BACnet communication protocol**


The A1 series were successfully tested by BACnet Testing Laboratories are allowed to carry the BTL trademark. A1 which consist of a workstation software, system controller and unit controller are all implemented as full BACnet nodes.

**Efficiency and quality improvement of commissioning on site**

Without using any other programming software or tools, engineer can now set parameters and load application of unit controllers only with a small portable terminals. It not only improves the efficiency and commissioning quality on site, but also promotes the progress on automation and standardization of buildings.
<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Building Supervisor software limited to 1 set of any HIMA-3E-BD or HIMA-6E-BD controller of English Version</td>
<td>Supervisor Software</td>
</tr>
<tr>
<td>2</td>
<td>Building Supervisor software limited to 2 sets of any HIMA-3E-BD or HIMA-6E-BD controller of English Version</td>
<td>Supervisor Software</td>
</tr>
<tr>
<td>3</td>
<td>HIMA System Controller With BACnet Driver, 256MB RAM, Power Supply, and Dual Port RS485 card embedded. Support 500 I/O points.</td>
<td>System Controller</td>
</tr>
<tr>
<td>4</td>
<td>HIMA System Controller With BACnet Driver, 256MB RAM, Power Supply, and Dual Port RS485 card embedded. Support 1000 I/O points.</td>
<td>System Controller</td>
</tr>
<tr>
<td>5</td>
<td>BACnet MS/TP Controller(B-ASC), (UlX5, DiX5, AoX3, DoX3)</td>
<td>Unit Controller</td>
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<tr>
<td>6</td>
<td>BACnet MS/TP Controller(B-ASC), (UlX6, DoX2)</td>
<td>Unit Controller</td>
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<tr>
<td>7</td>
<td>HMI portable terminal with LED display of English Version</td>
<td>HMI Tool</td>
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**Flexibly scalable**

Different SKU for different size project. Clients can select different SKU according to the projects scale.

**Supervisor software:**
- HIMA-AS-1E (Support 1 set of system controller) or
- HIMA-AS-2E (Support 2 sets of system controllers)

**System controllers, we offer:**
- HIMA-3E-BD (Support 500 points) or
- HIMA-3E-BD (Support 1000 points)

**More reasonable proportioning for input or output of controllers**

Based on detailed investigation and research on the building automation system, the proportion and design of each unit controller can fully meet the demand of local market. Act according to actual situations to ensure suitable distribution of input/output, so that we can avoid the waste of project investment because of substantial idle points.
Features of Hardware

System controller HIMA-3E-BD / HIMA-6E-BD

- Ultrafast CPU, one is 400MHZ and the other is 500 MHZ.
- Huge storage space, 256M RAM can store more data.
- QNX® real time operation system, the most stable and the safest operation system in the building automation field.
- Embedded standard RS-485 optional card, support two BACnet MS/TP communication bus.

Unit controller UC5533-SD1 / UC6002-SD1

- Support open BACnet network communication.
- 18 applications built in controllers for the typical HVAC devices control, such as AHU, FAU, Heat exchange, Fan, Pump, lighting control, etc.
- One LED on the front of the controller provides a visual indication of the status of the device.
- All wiring connections are made to removable terminal blocks to simplify controller installation and replacement.
- BTL and CE certification.

Portable terminal ULPT-E1

- Compact and portable, it provides an easy and simple way for engineers to do communication on site.
- Simple operation of several buttons can finish parameter setting, modulation and check.
- Built-in magnet on the rear cover, make HMI be absorbed on the DDC box firmly, easy for wiring and commissioning.

HMI Touch Panel

- Support BACnet MS/TP protocol
- Can do the Graphics, Alarm, Schedule functions
- CE & FCC certification
Features of Software

Supervisor software HIMA-AS-1E / HIMA-AS-2E

- Innovated point table design, parameter setting, standardized commissioning workflow.
- Flattening UI design blended in HUE factor, friendly and simply user interface strengthen interactivity, easy to operate.
- The usage of point table, wiring diagrams, graphic interface, single-point test reports, summary reports of the system and lots of standard templates, which greatly increases the efficiency of commissioning and also improves the quality.
- Auto-allocate controller through input point table, support intelligent detection and self diagnosis function.
- Automatic system design and configuration when point table input completed, standardized device distribution and point commission report.
- Automatic check and indicate configuration errors, which help engineer to find and correct these errors and to increase working efficiency.

- Multi-level alarm management. Incoming high-level alarm and handling guidance are displayed in the popup window which is in the foreground of all other application. Attract the attention of property managers to handle it as priority.
- Intelligent Supervisor software.
- The Property management companies can make their own alarm guide of building automation system and the electric contact list.
- Integrated software contains the entire functions of design, commissioning, acceptance, handover materials of project completion, and user operation manual.
- Schedulers/calendar ensures user-friendly management. Support statutory holidays, day off or rotating shifts mode for easy configuration.

Honeywell Building Automation System A1 series is developed and designed for Building Automation industry specifically, it is a system which truly achieving easy to design, easy to install, easy to commissioning, easy to serve and easy to upgrade. This software integrated both operation and commissioning tool function, we innovatively propose the standardized workflow of project design and standardized application library that are blended in user experience concept.

We care about your experience, and we strive to make the communication of building automation much more easier!