

MAXPRO® NVR PE (Professional Edition)

www.honeywellvideo.com

32/48/64-CHANNEL ENTERPRISE NETWORK VIDEO RECORDER (NVR)

Honeywell's MAXPRONVR PE is an open, flexible and scalable Enterprise IP video surveillance system. Utilizing Honeywell's high definition cameras, MAXPRO NVR PE is a powerful, high definition IP recording system with support for standards, remote viewing clients for enterprise installations. MAXPRO NVR PE is an open platform and supports broad third party device integrations with support for PSIA and ONVIF (including Profile S devices), real time streaming protocol (RTSP) standard and native device integrations including 360° camera support.

MAXPRO NVR PE provides easy to use desktop clients, web client and mobile apps—MAXPRO Mobile. The Web Client is supported from any standard Mac or PC browser and requires no additional install, provides the value of reduced setup, maintenance and improved compatibility. The interface is simple and intuitive with all the functionality and features that users need for daily surveillance operations, such as live view and playback of recorded video.

MAXPRO NVR PE comes pre-installed with all required software and is also pre-licensed for 32, 48 or 64 channels. This, along with an easy 3-Click* wizard to live video for auto configuration, makes installing an IP system quick and efficient. Simple and logical configuration pages make setup a breeze even for the novice installer. It supports simultaneous recording, live monitoring, search and system management for up to 64 IP cameras including high definition formats with easy to use clients. End users can view live video while simultaneously performing searches. MAXPRO NVR PE also offers advanced features. Video Surround feature provides the ability to track subjects of interest as they move between areas covered by adjacent cameras by simply double-clicking on the panel where the subject is currently visible. Features such as the powerful calendar, preview search options and film strip view allow for rapidly searching video for scenes of interest and then quick export method transfers video to an authenticated video clip playable through Windows® Media player.

The MAXPRO NVR PE user interface is based on Honeywell's flagship MAXPRO VMS user interface which offers a feature-rich user experience and is common across the MAXPRO NVR Family. Utilization of this familiar interface allows for the "learn one, know them all" concept that allows for familiarity across a broad range of Honeywell products saving training costs. Multiple MAXPRO NVRs can be deployed for system expansion using a distributed architecture and integrated with the MAXPRO Viewer multi-site software or MAXPRO VMS enterprise video management system.

The MAXPRO NVR PE unit is a solution that provides the processor and RAID enclosure in one chassis, resulting in both space and cost savings. RAID 5 and 6 support is available through a hardware-based RAID controller that removes the loading on the processor that software RAID can bring. A convenient web browser interface is used to manage the RAID controller. The unit is rack mountable and features dual redundant power supplies and mirrored 2.5" operating and application solid state drives (SSDs) for high availability. It has 8 removable storage drives with more reliable and robust SAS hard drives used for video storage. Dual 1 GB NICs are optimized to separate record and viewing data to ensure 100% recording and smooth playback even with multiple client connections.

**With default settings and in a local area network*

Market Opportunities

The continual growth of IP networks and the demand for high definition video have led to the need for convergence of building security systems and IT systems for many companies across the globe. This has resulted in a strong demand for an all-IP end-to-end enterprise security system deployment. MAXPRO NVR PE provides an open, flexible and scalable system with operational power to address the needs of a wide variety of enterprise applications. The 2U rack mount small form factor, high performance, and reliability of the MAXPRO NVR PE unit makes it an ideal solution in installations where digital video is mission critical.



MAXPRO NVR PE
Rev B Server

HD



FEATURES

Software

- MAXPRO NVR PE allows local or remote operations including live and recorded video monitoring, configuration and system management in a single desktop client interface.
- Support for Web Client on Windows PC (Internet Explorer, Chrome and Firefox browsers) and Mac (Safari browser). Supports live, playback/search of recorded video for up to 1080p resolution on all cameras, taking snapshots and viewing presets for PTZ cameras.
- Support for mobile monitoring clients on iOS and Android with MAXPRO Mobile apps
- Broad device integrations: Honeywell cameras and encoders, third party devices with support for standards—PSIA and ONVIF (including Profile S devices), RTSP standard and native device integration including 360° camera support.
- Feature-rich, user-friendly Windows based interface to view HD video and configure system settings.
- Easy 3-click* wizard to set up the system with auto-configuration and auto-discovery of IP cameras, recording and monitoring configuration—without any IP video expertise.
- Multi-zoom views on HD video. Example: Zoom in on a cash register in one view of the HD camera while at the same time monitoring the cash operator in the zoom out view of the HD camera.
- Ability to investigate events and alarms by simultaneously viewing alarm videos at various stages. For every alarm, users can view the video captured during pre-alarm, on-alarm, and post-alarm, and also view live video from the camera which triggered the alarm.
- Enriched video viewing experience through the intuitive video rendering engine that optimizes CPU utilization by altering the video frame rate.
- Cost-effective enhanced HD video rendering on remote desktop clients with support for monitoring of up to 14 1080p HD cameras in real time (30 fps)/420 fps 1080p HD with no-time lapse using the GPU capabilities of in-built processor graphics with 4th generation Intel® Core™ Processors for client systems. Up to 4 1080p HD @ 30 fps/120 fps on local client.
- Video Surround feature simplifies the process of tracking subjects through a set of surrounding cameras.
- Create, save and name salvos under My Salvos or Shared Salvos.
- IP PTZ control and digital zoom on fixed cameras. 360° immersive viewing experience providing heightened situational awareness and increased video surveillance coverage.
- Fast search by date/time, time line, time jump, bookmarks, calendar preview, film strip view and events. Increase productivity with more efficient search/investigation: Get to the relevant video in few clicks without having to review hours of recordings.
- Event history and operator log reporting with export in .pdf, Crystal Reports, Excel or Word.
- Capture and export clips and still images in simple .wmv, .asf and .bmp formats. Clips signed with digital signature for authentication.
- Supports multiple client connection to NVR Server.
- Separate event video and general recorded video retention times.
- Email notification on camera, system and operator events.
- Role-based operator privileges supporting Windows and local users.
- Flexible Motion detection (VMD) options with Server (Smart VMD) or Camera based motion events support. Reduced false alarms with object based motion detection analytics with Smart VMD.
- Advanced security features with encryption support for communication between desktop client to NVR and secure https login for Web Client.
- Keyboard control with UltraKey Plus and UltraKey Lite over Ethernet
- Local and multi-language support
- Multi-site support with MAXPRO Viewer
- Integration with MAXPRO VMS
- Integration with WIN-PAK® and Pro-Watch® Access Control Systems

Hardware

- Record and monitor up to 64 channels at 1920 fps @ 4CIF/VGA or 1920 fps @ 720p HD or 1920 fps @ 1080p (4 Mbps bitrate) HD per MAXPRO NVR PE. Network bandwidth/throughput supported per NVR with Incoming: 256 Mbps, Outgoing: 425 Mbps providing a Total: 681 Mbps.
- Supports One-Way Audio (for specific IP cameras) with live, playback and clip export on desktop clients for up to 64 IP channels.
- Includes dual 1 GB NICs optimized to separate record and viewing data to ensure 100% recording and smooth playback even with multiple client connections.
- Redundant power supplies and separate RAID 1 Operating System 2.5" solid state drives (SSDs) from storage drives.
- 8 x RAID 5/6 removable storage drives
- Reliable and robust SAS hard drive options (1 TB, 2 TB, 3 TB, 4 TB hard drives) providing raw storage capacities of 32 TB.
- Includes HDMI cw DVI-D to HDMI adapter or VGA or DVI-D or Display port for single monitor support for local client and rendering performance using GPU of up to 4 1080p HD @ 30 fps/120 fps on local client
- 2U rack mount form factor with optional locking front bezel. Rack rails included for use with four post racking systems.



6 Split



Event Record



Preview



Quad

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The diagram illustrates the network architecture for the MAXPRO NVR PE. It shows the following components and connections:

- Local Monitor:** Connected to the NVR via USB, VGA/DVI-D/HDMI, and w/DVI-D /DP.
- MAXPRO NVR PE:** The central recording unit with multiple network ports.
- Camera Network PoE Switch:** Connected to the NVR's Camera Network Port (default 192.168.1.101) via CAT5e. It provides power and data to:
 - H4D2F1 HD4HDIH:** A dome camera.
 - H3D2F1 HD3HDIH:** A dome camera.
 - HCD2F HCD5HIH:** A bullet camera.
- Client Workstation Network Switch:** Connected to the NVR's Client Workstation Network Port (default 172.25.254.101) via CAT5e. It provides data to:
 - Encoder:** A device that converts analog video to digital.
 - Analog Cameras:** Two cameras connected to the encoder.
- Client Workstation:** A laptop connected to the Client Workstation Network Switch via CAT5e.
- Router/Firewall:** Connected to the Client Workstation Network Switch and the Internet cloud.
- Internet:** A cloud representing the external network.
- Wireless Router:** Connected to the Internet cloud and providing wireless access to:
 - Mobile Devices:** A smartphone, a tablet, and another smartphone.

SPECIFICATIONS

Operational		Operational	
MAXPRO NVR PE Software - Version 3.5 or above		MAXPRO NVR PE Hardware	
Database	Microsoft SQL Express 2008 R2	Processor	Intel® Core™ i7-4790, 3.6 GHz, Intel® HD Graphics 4600
Operating system	Windows Embedded Standard 7 SP1, 64-bit	Memory	8 GB
Image compressions supported	MPEG-4, H.264	Power supply	Dual Redundant 820 W
Supported Honeywell IP cameras and encoders	Supports Performance Series IP, equipP® Series cameras including high definition. Refer to www.honeywellsecurity.com/hota	OS hard drive	2x 2.5" 128 GB SSD, RAID1
Supported third party IP cameras and encoders	Refer to the Honeywell Open Technology Alliance for a comprehensive list of compatible products to which this device is integrated. www.honeywellsecurity.com/hota	Storage capacities	4 TB to 32 TB raw storage
Audio Support	1-way audio for specific IP camera models. Refer to www.honeywellsecurity.com/hota	Storage hard drive options	8 field upgradable 1 TB or 2 TB or 3 TB or 4 TB SAS hard drive options
Maximum number of desktop client, Mobile app connections	Desktop Client - 18 per unit from 9 remote workstations + 1 local on NVR server Mobile App - 5 mobile devices per unit	Optical	22x DVD-RW
Salvo layouts	Desktop Client - Full, 2x2, 1x5, 3x3, 2x8, 1x12, 4x4. Web Client - 2x2, 1x1, 1x2, 1x3	Network	Dual 1 Gigabit Ethernet
Picture controls per camera	Sharpness, blur, brightness, contrast, hue, saturation, maintain aspect ratio, stretched, original size and picture mirror	Chassis with optional locking bezel	2U 8 bay including rack mount kit
OSD	Concealed text option	RAID card	6 GB/s SAS/SATA RAID Card, PCI Express x8, supports RAID levels up to 6+0
Playback controls per camera	FWD/REV Play x (1, 2, 4, 8, 16) Slow FWD/REV Play x (1/2, 1/4, 1/8)	Rear Panel Connections	
Search types	Time/date timeline, time jump FWD/REV, bookmarks, calendar preview, film strip and event search	Mouse and keyboard	2x USB
Recording schedule	Constant and event based with H/M/D and holiday and exception days	USB	2x Front, 4x Back
Recording methods per camera	Constant, event based and user activated	Network	2x RJ45
Live settings per camera	Compression format, resolution and frame rate	Monitor output	HDMI cw DVI-D to HDMI adapter or VGA or DVI-D or Display port
Record settings per camera	Same as live or reduced frame rate	Electrical	
Clip format	WMV with digital certificate for authentication playable with Windows media player. ASF for faster exporting of longer than an hour backup clips in native compression format	Input voltage	110/220 VAC 50/60 Hz
Video clip authentication	Digital signature, verification tool provided	Operating voltage	110V/220V Auto Sensing
Motion detection location	Camera based for supported models or Server based (Smart VMD) for all models(except 360 fisheye/panomorph views)	Power dissipation	Average BTU rating = 800 BTU/HR Peak BTU rating = 2800 BTU/HR
Event recording	Pre and post duration setting	Mechanical	
Operator reporting	Per user, configurator, session and viewer	Construction finish	Chassis: Black matte paint
Event report	Per camera or recorder events	Dimensions (w x h x d)	16.9" x 3.5" x 26" 430 mm x 88.8 mm x 660 mm
Operators	1024	Weight	Shipping: 65 lbs / 29.5kg
Recording and Remote Monitoring Performance		Environmental	
Max Video Streams Support	1920 fps @ 4CIF/VGA or 1920 fps @ 720p HD or 1920 fps @ 1080p (4 Mbps bitrate) HD. 1-way audio for up to 64 IP channels. Network bandwidth/throughput - Incoming: 256 Mbps, Outgoing: 425 Mbps, Total: 681 Mbps. Rendering performance using GPU of up to 4 1080p HD @ 30 fps/120 fps on local client. Note: Oncom Grandeye 360 Cameras are not supported with GPU rendering and use CPU rendering by default.	Temperature operating	32°F to 95°F (0°C to 35°C)
Server based VMD (Smart VMD) performance - channels supported	Channels at max fps: 64 ch at 1920 fps @ 4CIF/VGA or 64 ch at 1920 fps @ 720p or 64 ch at 1920 fps @ 1080p or total 128 Megapixel. All Channels at fps: 64 ch at 1920 fps @ 4CIF/VGA or 1920 fps @ 720p or 1920 fps @ 1080p or total 128 Megapixel.	Relative Humidity	5-95% non-condensing
		Regulatory	
		Emissions	FCC part 15B Class A; EN 55022 class A
		Immunity	EN 50130-4
		Safety	ANSI / UL 60950-1; CAN/CSA C22.2 No 60950-1; IEC 60950-1
		RoHS	EN 50581
		Country of Origin	Assembled in the USA
		Warranty	
		Warranty and Advanced Replacements	Refer to http://www.honeywellvideo.com/support/warranty/index.html

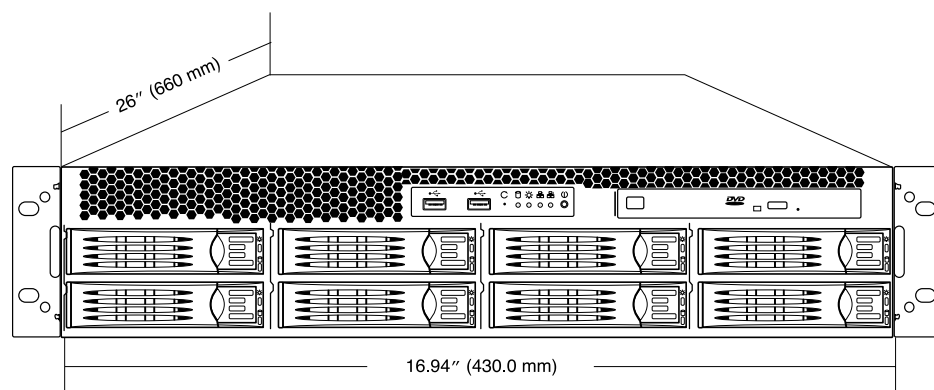
SPECIFICATIONS

MAXPRO NVR Client Only Workstation—Specifications			
	With GPU Rendering Capability		Without GPU Rendering Capability
	Minimum	Recommended	Recommended
Performance Configuration	Up to 9 1080p HD Cameras, 1 Monitor (270fps @1080p HD)	Up to 14 1080p HD cameras, 2 Monitors (420fps @1080p HD)	Up to 9 HD Cameras (1 selected panel only, Throttle Frame Rate setting enabled)
Processor	Intel® Core™ i5-4460 or equivalent 4th generation Intel® Core™ Processors for client systems	Intel® Core™ i7-4790 or equivalent 4th generation Intel® Core™ Processors for client systems	Intel® Core™ 2 Duo Processor E6750 2.66 GHz or Quad Core Intel® Xeon® E5405 2.0 GHz
Graphics Adapter	In-built Processor Graphics (GPU): Intel® HD Graphics 4600 or equivalent		512 MB or higher Display Card (Optional)
System Memory (RAM)	8 GB		4 GB
OS & Application – Hard Disk Drive or Partition	Minimum 100 GB Partition drive or separate hard drive		
Network Interface	Minimum – 1 Gigabit network interface card		
Operating System	Microsoft® Windows 7 Professional SP1 (64bit)		Microsoft® Windows 7 Professional SP1 (64bit/32bit)
Optical Drive	DVD-RW		
Monitor Resolution	Video resolution 1280x1024 pixels, 32 bit		
Keyboard/Mouse	102-key keyboard and mouse		

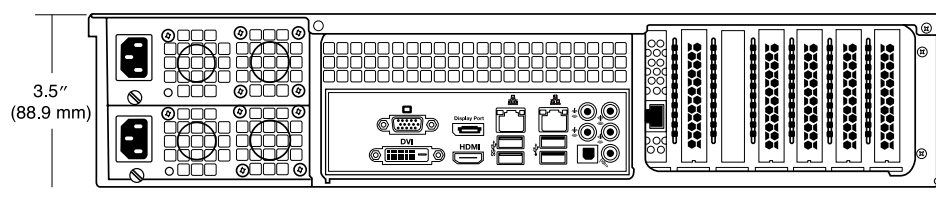
Note: The performance specifications above are recommended for systems with fixed or PTZ cameras only. 360 Cameras - Oncam Grandeye 360 cameras are not supported with GPU rendering and use CPU rendering by default. On Windows 7 workstations, GPU rendering is only supported through the motherboard monitor outputs and any additional graphics cards should be disabled in BIOS.

SYSTEM DIMENSIONS

Front View



Rear View

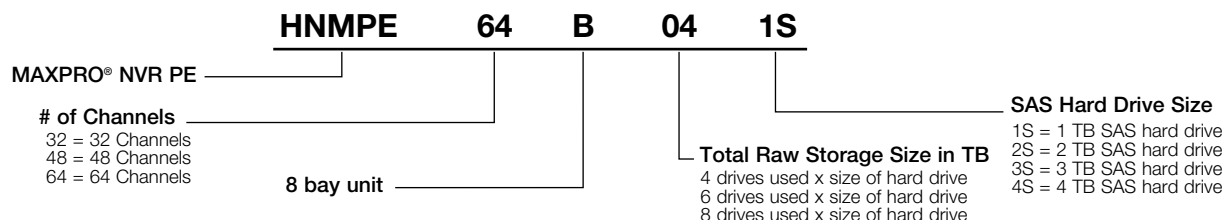


MAXPRO® NVR PE

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ORDERING

MAXPRO NVR PE		
HNMPE32B041S HNMPE48B041S HNMPE64B041S	MAXPRO NVR PE, 32CH, 4X1 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 4X1 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 4X1 TB SAS HARD DRIVE, 8D	1.819 TB RAID 6, 2.728 TB @ RAID 5
HNMPE32B061S HNMPE48B061S HNMPE64B061S	MAXPRO NVR PE, 32CH, 6X1 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 6X1 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 6X1 TB SAS HARD DRIVE, 8D	3.638 TB RAID6, 4.547 TB @ RAID 5
HNMPE32B081S HNMPE48B081S HNMPE64B081S	MAXPRO NVR PE, 32CH, 8X1 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 8X1 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 8X1 TB SAS HARD DRIVE, 8D	5.457 TB RAID 6, 6.366 TB @ RAID 5
HNMPE32B082S HNMPE48B082S HNMPE64B082S	MAXPRO NVR PE, 32CH, 4X2 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 4X2 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 4X2 TB SAS HARD DRIVE, 8D	3.368 TB RAID 6, 5.457 TB @ RAID 5
HNMPE32B122S HNMPE48B122S HNMPE64B122S	MAXPRO NVR PE, 32CH, 6X2 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 6X2 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 6X2 TB SAS HARD DRIVE, 8D	7.276 TB RAID 6, 9.095 TB @ RAID 5
HNMPE32B162S HNMPE48B162S HNMPE64B162S	MAXPRO NVR PE, 32CH, 8X2 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 8X2 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 8X2 TB SAS HARD DRIVE, 8D	10.915 TB RAID 6, 12.734 TB @ RAID 5
HNMPE32B123S HNMPE48B123S HNMPE64B123S	MAXPRO NVR PE, 32CH, 4X3 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 4X3 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 4X3 TB SAS HARD DRIVE, 8D	5.456 TB RAID 6, 8.185 TB @ RAID 5
HNMPE32B183S HNMPE48B183S HNMPE64B183S	MAXPRO NVR PE, 32CH, 6X3 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 6X3 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 6X3 TB SAS HARD DRIVE, 8D	10.913 TB RAID 6, 13.642 TB @ RAID 5
HNMPE32B243S HNMPE48B243S HNMPE64B243S	MAXPRO NVR PE, 32CH, 8X3 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 8X3 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 8X3 TB SAS HARD DRIVE, 8D	16.370 TB RAID 6, 19.099 TB @ RAID 5
HNMPE32B164S HNMPE48B164S HNMPE64B164S	MAXPRO NVR PE, 32CH, 4X4 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 4X4 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 4X4 TB SAS HARD DRIVE, 8D	7.276 TB RAID 6, 10.914 TB @ RAID 5
HNMPE32B244S HNMPE48B244S HNMPE64B244S	MAXPRO NVR PE, 32CH, 6X4 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 6X4 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 6X4 TB SAS HARD DRIVE, 8D	14.552 TB RAID 6, 18.189 TB @ RAID 5
HNMPE32B324S HNMPE48B324S HNMPE64B324S	MAXPRO NVR PE, 32CH, 8X4 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 48CH, 8X4 TB SAS HARD DRIVE, 8D MAXPRO NVR PE, 64CH, 8X4 TB SAS HARD DRIVE, 8D	21.828 TB RAID 6, 25.466 TB @ RAID 5
MAXPRO NVR PE - Channel Upgrade Licenses		
HNM01UP	MAXPRO NVR - 1 Channel License Upgrade to add support for up to 64 Channels per NVR	
HNM04UP	MAXPRO NVR - 4 Channel License Upgrade to add support for up to 64 Channels per NVR	
HNM08UP	MAXPRO NVR - 8 Channel License Upgrade to add support for up to 64 Channels per NVR	
HNM16UP	MAXPRO NVR - 16 Channel License Upgrade to add support for up to 64 Channels per NVR	
HNM32UP	MAXPRO NVR - 32 Channel License Upgrade to add support for up to 64 Channels per NVR	
Accessories		
HNMPEBHD1S	1 TB SAS Upgrade Kit, MAXPRO NVR PE, Rev B Server	
HNMPEBHD2S	2 TB SAS Upgrade Kit, MAXPRO NVR PE, Rev B Server	
HNMPEBHD3S	3 TB SAS Upgrade Kit, MAXPRO NVR PE, Rev B Server	
HNMPEBHD4S	4 TB SAS Upgrade Kit, MAXPRO NVR PE, Rev B Server	
MAXPRO NVR PE - Part Number Lookup		



For more information:

www.honeywell.com/security

Automation and Control Solutions

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