PRO-WATCH® NVR

64/128/256-Channel Enterprise NVR

Pro-Watch NVR is a flexible, scalable and open IP video surveillance system, including the Pro-Watch NVR PE/HE with 64 to 256 channels as well as a software based solution.

Supporting Honeywell's high definition (HD) cameras and broad integration with third party IP cameras and encoders, the Pro-Watch NVR family is a powerful HD IP recording and security monitoring system for a variety of applications.

OPEN – BROAD DEVICE INTEGRATIONS

Integrates to full line of Honeywell IP cameras and encoders. Support for ONVIF Profile S and Profile G, PSIA, real time streaming protocol (RTSP) and multicast standards and Honeywell native device integrations supporting equIP® Series cameras' new features: 4K resolution, H.265 video compression codec, 3D PTZ control, 360° camera, multi-imager camera support, intelligence events and bounding boxes on objects detected by specific video analytics.

Native device integrations supporting 60 Series, 30 Series cameras' new features: H.265 smart video compression codec and encrypted video stream with TLS 1.2.

SCALABLE INTEGRATED SECURITY SOLUTION

Multiple Pro-Watch NVRs can be deployed for system expansion using a distributed architecture and are integrated with the Pro-Watch VMS enterprise video management system with Integrated Security Suite.

The whole Pro-Watch NVR products contain no content or material from any companies or their subsidiaries prohibited under US National Defense Authorization Act (NDAA) Section 889 and can be used as part of video systems which comply with NDAA Section 889.

EFFICIENT MONITORING AND INVESTIGATION

Pro-Watch NVRs provide quick camera drag-and-drop connection for seamless live view experience. They support GPU acceleration for smooth 4K and 1080p 60 fps rendering.

The number of false alarms are reduced with SMART VMD, object based motion detection analytics.

They include smooth reverse playback for real-time investigation of incidents and SMART Motion search for fast and efficient forensic search and investigation of objects/motion on recorded video using Client PC without impacting the NVR Server load.

The clips are exported in an Encrypted proprietary format (*.smpvc) with user password protection.

EASY TO INSTALL AND USE - TURNKEY SOLUTION

- Pre-installed with all required software and pre-licensed for 64, 128 or 256 channels with no extra channel license costs.
- NVR Software version includes all required applications and licenses for up to 256 channels.
- Easy 3-Click* wizard to live video for auto configuration - quick and efficient IP system install.
- Simple and logical configuration pages make setup a breeze even for the novice installer.
- Supports simultaneous recording, live monitoring, search and system management for up to 64 IP cameras including high definition formats with easy to use clients.
- Easy to use desktop clients, web client and mobile apps.
- Intelligence events from cameras can be viewed at the alarm panel, and trigger recording on Pro-Watch NVRs for further investigation.
- Learn One, Know them All -Common feature-rich user experience across the Pro-Watch NVR Family and PW VMS provides familiarity across a broad range of Honeywell products saving training costs.

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PRO-WATCH® NVR

64/128/256-Channel Enterprise Network Video Recorder (NVR)

OPERATIONAL	
PRO-WATCH NVR SOFTWARE - VERSION 6.7 OR ABOVE	
DATABASE	Microsoft® SQL Server® 2019 Express
OPERATING SYSTEM	Windows 10 IoT, Server 2019 optional
COMPRESSIONS SUPPORTED	MJPEG, MPEG-4, H.264, H.265 (including smart codec for specific cameras)
SUPPORTED HONEYWELL IP CAMERAS AND ENCODERS	Supports Honeywell's Performance IP, equIP® Series, 30 Series and 60 Series IP cameras. Refer to our website.
SUPPORTED THIRD PARTY IP CAMERAS AND ENCODERS	Refer to the Pro-Watch® NVR Compatibility on our website for a comprehensive list of compatible products to which this device is integrated.
AUDIO SUPPORT	2-way audio for specific IP camera models.
MAXIMUM NUMBER OF DESKTOP CLIENT CONNECTIONS	Desktop Client - 38 per unit from 19 remote workstations + 1 local on NVR
SALVO LAYOUTS	Desktop Client - Full, 2x2, 1x5, 3x3, 2x8, 1x12, 4x4. Web Client - 2x2.1x1,1x2,1x3. Mobile app (Phone) - 2x2,2x4,1x2, 1x1. Mobile app (Tablet) - 3x3, 2x2, 1x1.
PICTURE CONTROLS PER CAMERA	Sharpness, blur, brightness, contrast, hue, saturation, maintain aspect ratio, stretched, original size and picture mirror
OSD	Concealed text option
PLAYBACK CONTROLS PER CAMERA – DESKTOP CLIENT	FWD/REV Play x (1, 2, 4, 8, 16) Slow FWD/REV Play x (1/2, 1/4, 1/8)
SEARCH TYPES	Time/date timeline, time jump FWD/REV, bookmarks, calendar, preview, film strip, event search and SMART Motion Search
RECORDING SCHEDULE	Continuous and event based with H/M/D and holiday and exception days
RECORDING METHODS PER CAMERA	Continuous, event based and user activated
LIVE SETTINGS PER CAMERA	Compression format, resolution and frame rate
RECORD SETTINGS PER CAMERA	Same as live or reduced frame rate
CLIP FORMAT	Honeywell MPVC and encrypted SMPVC playable with standalone Pro-Watch Clip Player for faster and secure exports. 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.
VIDEO CLIP AUTHENTICATION	Digital signature, verification tool provided
MOTION DETECTION LOCATION	Camera based for supported models or Server based (SMART VMD) for all models (except 360 fisheye /panomorph views)
EVENT RECORDING	Pre and post duration setting
OPERATOR REPORTING	Per user, configurator, session and viewer
EVENT REPORT	Per camera or recorder events
OPERATORS	1024

OPERATIONAL		
PRO-WATCH NVR HARDWARE		
MODEL	**PE (12-bay unit)**	**HE (24-bay unit)**
PROCESSOR	Dual Intel® Xeon® Silver 4210, 2.2 GHz	
MEMORY	64GB	
POWER SUPPLY	1+1 750W hot plug redundant 80+ Platinum	
OS DRIVE	2x 240 GB M.2 SSD, RAID 1	
STORAGE CAPACITIES	32 TB to 192 TB raw storage	Up to 384 TB raw storage
STORAGE HARD DRIVE OPTIONS	12 hot-swappable SATA hard drive options	24 hot-swappable SATA hard drive options
NETWORK	2x 10GbE SFP+ and 2 x 1GbE	
CHASSIS WITH LOCKING BEZEL	2U, including rack mount kit and locking bezel	
RAID CARD	Hardware RAID, Data RAID Level: 0, 1, 5, 6, 10	
REAR/FRONT PANEL CONNECTIONS		
USB	Front: 2 x USB 2.0, 1 x micro-usb, dedicated IDRAC Direct USB, Rear: 2 x USB 3.0	Front: 1x USB 3.0, 1 x micro-usb, dedicated IDRAC Direct USB. Rear: 2x USB 3.0
NETWORK	2 x RJ45, 2 x SFP+	
MONITOR OUTPUT	VGA on both front and rear	VGA on rear
ELECTRICAL		
INPUT VOLTAGE	110/220 VAC 50/60 Hz autosensing	
MECHANICAL		
CONSTRUCTION	Chassis: Grey matte paint	
DIMENSIONS (W X H X D)	17.08 x 3.4 x 27.86 in 434 x 86 x 708 mm	17.6 x 3.42 x 31.9 in 448 x 86.8 x 810 mm
WEIGHT	71.5 lbs / 32.5 kg fully populated	95.24lbs (43.2kg) fully populated
ENVIRONMENTAL		
TEMPERATURE OPERATING	10°C to 35°C (50°F to 95°F)	10°C to 30°C (50°F to 86°F)
RELATIVE HUMIDITY	10-80% non-condensing	
REGULATORY	UL, CE, FCC, NDAA Section 889, ROHS certificate for UAE	
COUNTRY OF ORIGIN	Mexico for North America and Middle East, Non-China for all regions	
WARRANTY		
WARRANTY	5-Year Warranty, Next Business Day on-site support (at least for North America)	

RECORDING AND MONITORING PERFORMANCE

7680 fps @ 1080p (4.0 Mbps bitrate) HD. 1-way audio for up to 256 IP channels.
Network bandwidth/throughput : 1800 Mbps.
Rendering performance using CPU of up to 4 1080p HD @ 30 fps/120 fps on local client.

MAX VIDEO STREAMS SUPPORT	Web Client: Live - 64 streams, Playback - 32 streams. Note: Live streams consumed are per camera being viewed live and duplicate live views of the same camera in multiple or same web client instance are allowed without consuming additional streams. Playback streams consumed are per playback stream being viewed and each playback stream being viewed consumes 1 additional stream. Desktop Client: Live - 512 streams, Playback/Video retrieval sessions - 64, Sync playback - 9 streams. 512 live streams limit excludes 1 stream used per camera if Smart VMD is enabled. Maximum live streams per camera is 15 with Smart VMD enabled. Mobile App: 16 streams of 1080p HD @ 5 fps each. Note: During archival operations,maximum no of playback streams recommended from Desktop Client and Web Client is 16 streams.
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. Smart VMD is not recommended when more than 64 cameras are connected to the NVR.
ARCHIVAL PERFORMANCE	64 channels @ 2.5 Mbps / 160 Mbps total archival bandwidth while recording 128 channels @ 2.5 Mbps / 320 Mbps with total bandwidth/throughput 700 Mbps
MULTI-STREAM PERFORMANCE	Support for maximum 512 streams. Support for configuring 1 preferred stream for continuous recording and 1 preferred stream for live video / motion based recording per camera.

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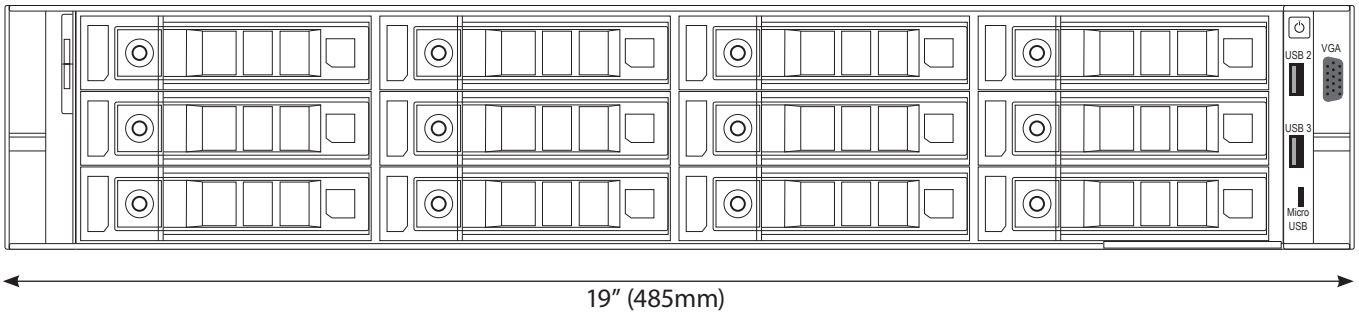
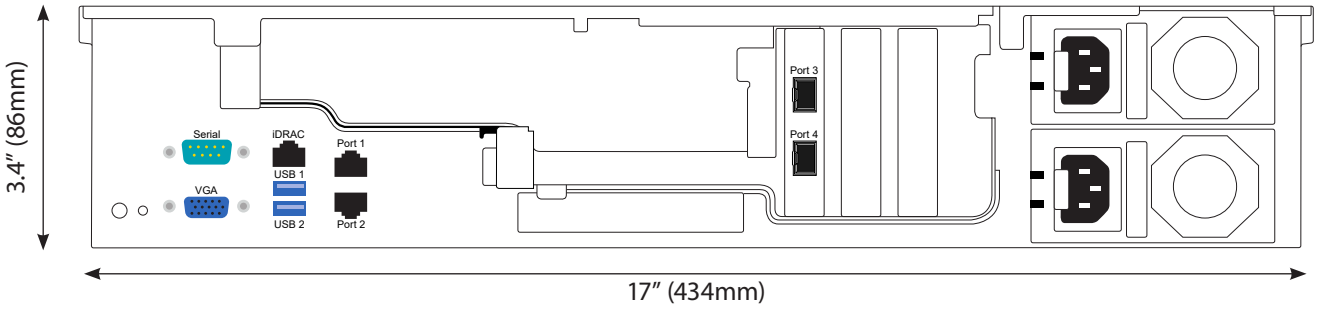
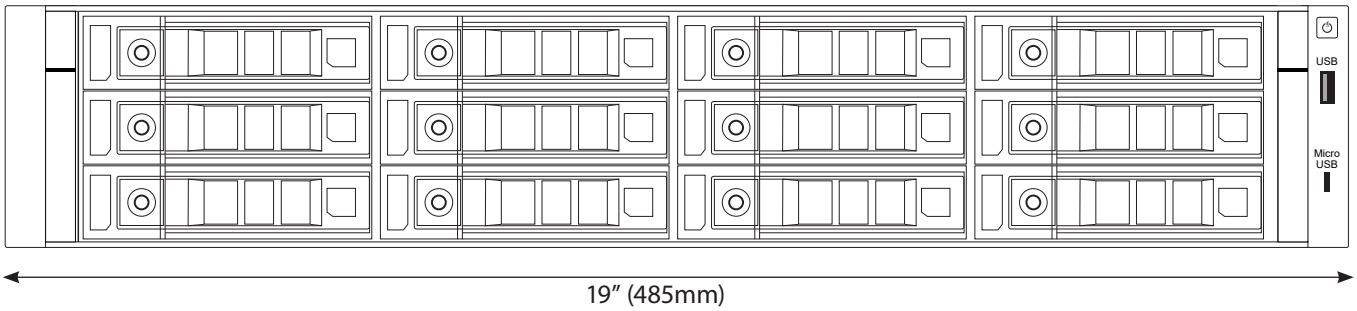
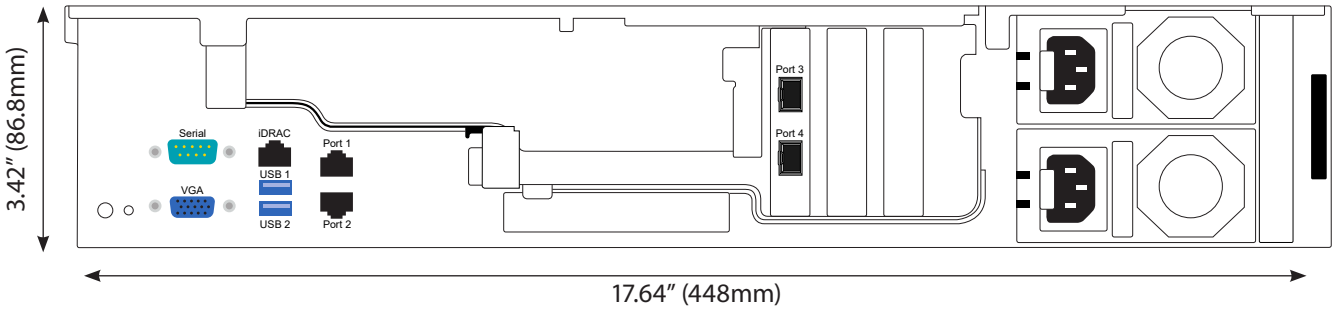
SPECIFICATIONS (12-bay unit)





SPECIFICATIONS (24-bay unit)





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ORDERING

PRO-WATCH NVR PE

PWNPE64C32T8	64CH, 4x8 TB SATA HARD DRIVE	14.551 TB RAID 6, 21.827 TB RAID 5
PWNPE128C32T8	128CH, 4x8 TB SATA HARD DRIVE	
PWNPE256C32T8	256CH, 4x8 TB SATA HARD DRIVE	
PWNPE64C48T8	64CH, 6x8 TB SATA HARD DRIVE	29.103 TB RAID 6, 36.378 TB RAID 5
PWNPE128C48T8	128CH, 6x8 TB SATA HARD DRIVE	
PWNPE256C48T8	256CH, 6x8 TB SATA HARD DRIVE	
PWNPE64C64T8	64CH, 8x8 TB SATA HARD DRIVE	43.654 TB RAID 6, 50.93 TB RAID 5
PWNPE128C64T8	128CH, 8x8 TB SATA HARD DRIVE	
PWNPE256C64T8	256CH, 8x8 TB SATA HARD DRIVE	
PWNPE64C96T8	64CH, 12x8 TB SATA HARD DRIVE	72.757 TB RAID 6, 80.033 TB RAID 5
PWNPE128C96T8	128CH, 12x8 TB SATA HARD DRIVE	
PWNPE256C96T8	256CH, 12x8 TB SATA HARD DRIVE	
PWNPE64C120T12	64CH, 10x12 TB SATA HARD DRIVE	87.27 TB RAID 6, 98.18 TB RAID 5
PWNPE128C120T12	128CH, 10x12 TB SATA HARD DRIVE	
PWNPE256C120T12	256CH, 10x12 TB SATA HARD DRIVE	
PWNPE64C144T12	64CH, 12x12 TB SATA HARD DRIVE	109.136 TB RAID 6, 120.050 TB RAID 5
PWNPE128C144T12	128CH, 12x12 TB SATA HARD DRIVE	
PWNPE256C144T12	256CH, 12x12 TB SATA HARD DRIVE	
PWNPE64C192T16	64CH, 12x16 TB SATA HARD DRIVE	145.45 TB RAID 6, 160 TB RAID 5
PWNPE128C192T16	128CH, 12x16 TB SATA HARD DRIVE	
PWNPE256C192T16	256CH, 12x16 TB SATA HARD DRIVE	

PRO-WATCH NVR HE

PWNHE64C240T12	64CH, 20X12 TB SATA HARD DRIVE	196.36 TB RAID 6, 207.27 TB RAID 5
PWNHE128C240T12	128CH, 20X12 TB SATA HARD DRIVE	
PWNHE256C240T12	256CH, 20X12 TB SATA HARD DRIVE	
PWNHE64C288T12	64CH, 24X12 TB SATA HARD DRIVE	240 TB RAID 6, 250.91 TB RAID 5
PWNHE128C288T12	128CH, 24X12 TB SATA HARD DRIVE	
PWNHE256C288T12	256CH, 24X12 TB SATA HARD DRIVE	
PWNHE64C384T16	64CH, 24X16 TB SATA HARD DRIVE	320 TB RAID 6, 334.55 TB RAID 5
PWNHE128C384T16	128CH, 24X16 TB SATA HARD DRIVE	
PWNHE256C384T16	256CH, 24X16 TB SATA HARD DRIVE	

UPGRADE KITS FOR PRO-WATCH NVR

PWNPECHD8T	8TB SATA Upgrade Kit
PWNPECHD12T	12TB SATA Upgrade Kit
PWNPECHD16T	16TB SATA Upgrade Kit
PWNPECWS2K19	Windows 10 to Windows Server 2019 OS Factory Upgrade
PWNPECHD8TEUP	Encryption Support Factory Upgrade per 8TB HDD
PWNPECHD12TEUP	Encryption Support Factory Upgrade per 12TB HDD

CHANNEL UPGRADE LICENSES FOR PRO-WATCH NVR

PWN01UP	1 Channel License Upgrade to add support for up to 256 Ch / NVR
PWN04UP	4 Channel License Upgrade to add support for up to 256 Ch / NVR
PWN08UP	8 Channel License Upgrade to add support for up to 256 Ch / NVR
PWN16UP	16 Channel License Upgrade to add support for up to 256 Ch / NVR
PWN32UP	32 Channel License Upgrade to add support for up to 256 Ch / NVR
PWN64UP	64 Channel License Upgrade to add support for up to 256 Ch / NVR

SOFTWARE MAINTENANCE & UPGRADES AGREEMENTS

SSAPWNVRCH	Annual Software Support Agreement – Pro-Watch NVR System with VMS support included, Per Channel
SSA24PWNVRCH	Annual 24/7 Software Support Agreement – Pro-Watch NVR System with VMS support included, Per Channel
SSAEUPWNVRCH	Annual End User 24/7 Software Support Agreement – Pro-Watch NVR System with VMS support included, Per Channel

PRO-WATCH NVR – PART NUMBER LOOKUP

PWN HE 256 C 384 T16

Pro-Watch® NVR

# of Storage bays
PE = 12-bay
HE = 24-bay

# of Channels
64 = 64 Channels
128= 128 Channels
256= 256 Channels

Rev C Hardware

Total Raw Storage Size in TB (PE)
32: 4x8TB drives used x size of hard drive
48: 6x8TB drives used x size of hard drive
64: 8x8TB drives used x size of hard drive
96: 12x8TB drives used x size of hard drive
120: 10x12TB drives used x size of hard drive
144: 12x12TB drives used x size of hard drive
192: 12x16TB drives used x size of hard drive

Total Raw Storage Size in TB (HE)
240: 20x12TB drives used x size of hard drive
288: 24x12TB drives used x size of hard drive
384: 24x16TB drives used x size of hard drive

Hard Drive Size
T8 = 8 TB hard drive
T12= 12 TB hard drive
T16= 16 TB hard drive

For more information

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