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 featurerich user experience across the Pro-Watch NVR Family and PW
 VMS provides familiarity across a broad range of Honeywell products saving training costs.



PRO-WATCH® NVR

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

OPERATIONAL						
PRO-WATCH NVR SOFTWARE - V	ERSION 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 CONN	IECTIONS							
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	100-240 VAC 50/60 Hz autosensi	ng						
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 America)	on-site support (at least for North						

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.

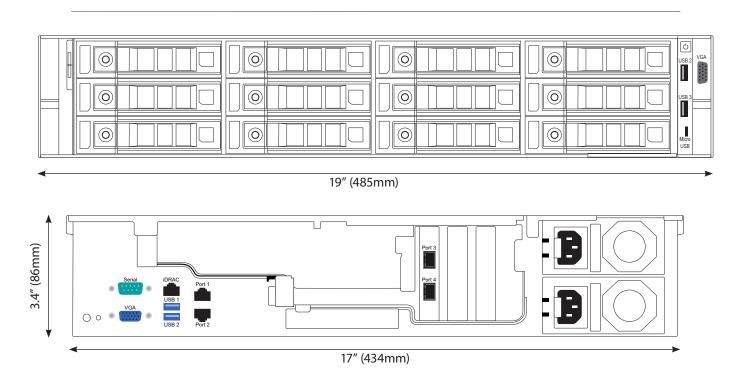
MAX VIDEO STREAMS SUPPORT	Web Client: Live - 64 streams, Playback - 32 streams. Note: Live streams consumed are per camera being viewed live and duplicate live views of the same camera in multiple or same web client instance are allowed without consuming additional streams. Playback streams consumed 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.



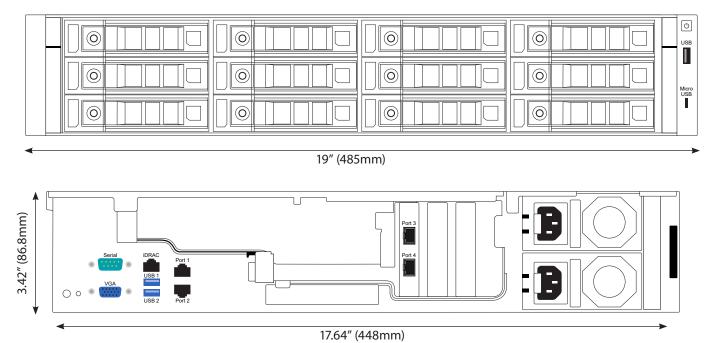
PRO-WATCH® NVR

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

SPECIFICATIONS (12-bay unit)



SPECIFICATIONS (24-bay unit)



PRO-WATCH® NVR

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

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		PRO-WATC	H NVR PE				U	PGRADE KITS FOR PRO-WATCH	NVR	
	PWNPE64C32T8	64CH, 4x8 TB SAT				PWNPEC	HD8T	8TB SATA Upgrade Kit		
	PWNPE128C32T8	128CH, 4x8 TB SA	TA HARD DRIVE		14.551 TB RAID 6, 21.827 TB RAID 5 PWNPE		HD12T	12TB SATA Upgrade Kit		
	PWNPE256C32T8	256CH, 4x8 TB SA	TA HARD DRIVE		ZI.021 IDIAID 3	PWNPEC	HD16T	16TB SATA Upgrade Kit		
	PWNPE64C48T8	64CH, 6x8 TB SAT	A HARD DRIVE			PWNPEC		Windows 10 to Windows Server 2	019 OS Factory Ungra	
	PWNPE128C48T8	128CH, 6x8 TB SA	TA HARD DRIVE	-	29.103 TB RAID 6, 36.378 TB RAID 5		HD8TEUP	Encryption Support Factory Upgr	, , , ,	
	PWNPE256C48T8	256CH, 6x8 TB SA	TA HARD DRIVE		50.510 ID IAID 5			31 11 3 10		
	PWNPE64C64T8	64CH, 8x8 TB SAT	A HARD DRIVE				HD12TEUP	Encryption Support Factory Upgr	ade per 1218 HDD	
	PWNPE128C64T8	128CH, 8x8 TB SA	TA HARD DRIVE		43.654 TB RAID 6, 50.93 TB RAID 5		CHANNEL	UPGRADE LICENSES FOR PRO-	WATCH NVR	
	PWNPE256C64T8	256CH, 8x8 TB SA	TA HARD DRIVE		00.00 1210.02 0	PWN01U				
	PWNPE64C96T8	64CH, 12x8 TB SA	TA HARD DRIVE							
	PWNPE128C96T8	128CH, 12x8 TB S	SATA HARD DRIV		72.757 TB RAID 6, 80.033 TB RAID 5	PWN04U		nnel License Upgrade to add support f		
	PWNPE256C96T8	256CH, 12x8 TB 5	SATA HARD DRIV		22.000 101010	PWN08U		nnel License Upgrade to add support f		
	PWNPE64C120T12	64CH, 10x12 TB S	SATA HARD DRIV			PWN16U		annel License Upgrade to add support		
	PWNPE128C120T12	128CH, 10x12 TB	SATA HARD DF		87.27 TB RAID 6, 98.18 TB RAID 5	PWN32U	IP 32 Ch	annel License Upgrade to add support	t for up to 256 Ch / NVR	
	PWNPE256C120T12	256CH, 10x12 TB	SATA HARD DF		00.1010101000	PWN64U	IP 64 Ch	annel License Upgrade to add support	for up to 256 Ch / NVR	
	PWNPE64C144T12	64CH, 12x12 TB S	SATA HARD DRIV							
	PWNPE128C144T12	128CH, 12x12 TB	SATA HARD DF		109.136 TB RAID (120.050 TB RAID (6, S	OFTWARE	MAINTENANCE & UPGRADES	AGREEMENTS	
	PWNPE256C144T12	256CH, 12x12 TB	SATA HARD DF		120.000 1010.000	SSAPWN	VRCH	Annual Software Support Agreemer		
	PWNPE64C192T16	64CH, 12x16 TB S	SATA HARD DRIV					System with VMS support included, Per Channel		
	PWNPE128C192T16	128CH, 12x16 TB	SATA HARD DF		145.45 TB RAID 6, 160 TB RAID 5					
	PWNPE256C192T16	256CH, 12x16 TB	SATA HARD DF		100 10 10 10 0					
		PRO-WATC	H NVR HE							
	PWNHE64C240T12	64CH, 20X12 TB	SATA HARD DRI'							
	PWNHE128C240T12	128CH, 20X12 TE	SATA HARD DF		196.36 TB RAID 6, 207.27 TB RAID 5					
	PWNHE256C240T12	256CH, 20X12 TE	3 SATA HARD DF		207.27 TB RAID 5					
	PWNHE64C288T12	64CH, 24X12 TB	SATA HARD DRI'	VE						
	PWNHE128C288T12	128CH, 24X12 TE	SATA HARD DF		240 TB RAID 6, 250.91 TB RAID 5					
	PWNHE256C288T12	256CH, 24X12 TE	SATA HARD DF		200.91 TD RAID D					
	PWNHE64C384T16	64CH, 24X16 TB	SATA HARD DRI'							
	PWNHE128C384T16	128CH, 24X16 TE	SATA HARD DF		320 TB RAID 6, Note: 334.55 TB RAID 5 AII DW NIVP's com					
	PWNHE256C384T16	256CH, 24X16 TE	3 SATA HARD DF		554.55 IB RAID 5	 All PW NVR's come needs to get specifie 		with RAID 5 per default; if RAID 6 is required then this ied in the order		
		PR	D-WATCH	NVR -	- PART NUMI	BER LOOK	UP			
		PWN	HE	25	6 C	38	4	T16		
	Pro-Watch® NVR								— Hard Drive Si	
		H of Changes ba							T8 = 8 TB hard driv T12= 12 TB hard d	
or more informati		# of Storage ba PE=12-bay	ys			L		Raw Storage Size in TB (PE TB drives used x size of hard drive	T16= 16 TB hard di	

www.security.honeywell.com/uk www.security.honeywell.com/me

Honeywell Commercial Security

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Honeywell Commercial Security

140 Waterside Road Hamilton Industrial Park Leicester LES 1TN United Kingdom Tel: +44 (0) 1928 378005 www.honeywell.com # 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

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

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