HOLUND ELEKTRONIKK AS

Artikkelnr: 150-971

Front view

Rear view

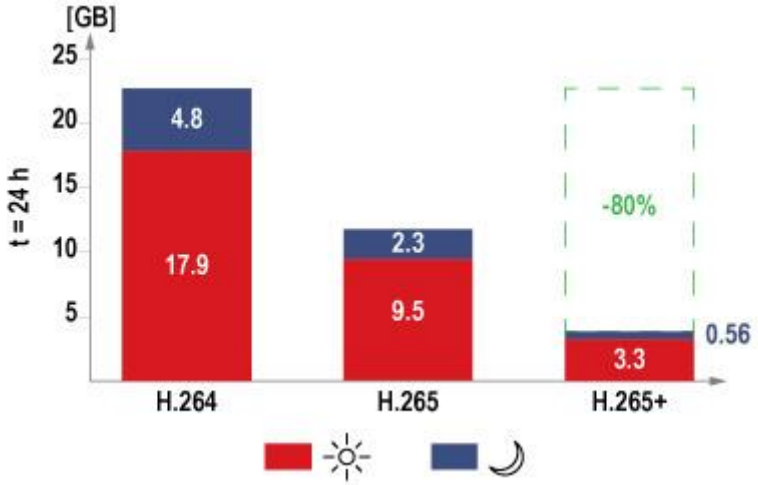
View of the included accessories

Key features:

- Recording resolution up to **8 MP**
- Parallel video outputs: HDMI (4K/30Hz, 1080p/30/60Hz) / VGA (1080p/60Hz)
- Max total bandwidth (input/output): 40/80 Mbps
- Support of **4** IP cameras (Hikvision or ONVIF-compliant)
- Built-in 4-port PoE switch
- Support for one **SATA HDD up 6 TB**
- Support for **H.265+/H.265/H.264+/H.264/MPEG4** video compression
- VCA functions (face detection, crossing of virtual line, area intrusion detection etc.)
- Support for ANR function
- Channel 0 - possibility to monitor all cameras with minimum demand for network bandwidth
- 2x USB 2.0
- Audio input/output
- Monitoring of statuses of LAN, cameras, HDDs

Hikvision DS-7604NI-K1/4P is a modern **4-channel IP network video recorder** capable of monitoring, recording and playing back images from 4 IP cameras of megapixel resolutions, up to **8 MP**. This model has **built-in 4-port PoE switch** for direct connection of IP cameras with PoE option. Its parallel

HDMI/VGA monitor outputs display the same image. One SATA port enables the user to install a hard drive with capacity up to **6 TB**. Additionally, the NVR supports NAS/IP SAN disk arrays. In the case of disk space overflow, the newest data overwrites the oldest recordings. Built-in USB ports allow for connecting external memory sticks or disk drives in order to copy some files.



H.265/H.265+ - higher compression ratios with preserving video quality provided by H.264

The local recording and network transmission can use H.265+, H.265, H.264+ or H.264 compression methods that provide good image quality with relatively small bandwidth and disk space consumption (in each case the selected type of compression must be supported by the cameras). Compared with H.264, H.265 can reduce by half the data stream, which translates into proportional savings of the disk space or extended data retention time. H.265+ and H.264+ are Hikvision standards based on the original systems and optimized for CCTV applications. They further minimize the streams in typical video surveillance scenarios. To use any available compression method, it must be supported by the connected cameras. The compression method can be specified individually for each channel.

The NVR supports alarms generated by VCA functions (face detection, license plate recognition, crossing virtual lines, area intrusion detection, an entry/exit to/from an area, loss of focus, etc.) implemented in cameras. The response to such an event (e.g. someone crosses virtual line in a specified direction) can be the change of the state of the alarm output, email notification sent to a monitoring center etc., depending on the configuration. Advanced analytics allows installers/users to implement more advanced projects, perform quick search of interesting events and preset intelligent recording that saves disk space.

With the support of **ANR** (Automatic Network Replenishment), any IP camera equipped with a memory card can record video in the absence of network connection. After the restoration of the network connection, the recordings are automatically synchronized with those recorded on the NVR. This ensures continuous coverage of events, even in the case of communication problems between the camera and NVR.

The menu of the DVR has been designed in a manner that helps everyone, even novice users, navigate and make changes to the settings. Both the layout of commonly used functions and graphic design meet the highest current standards. The support for Firefox, Opera, Safari eliminates the need for installing ActiveX components.

IP CCTV systems based on Hikvision IP cameras and NVRs can be configured for continuous recording with special parameters in the case of specific events. Each channel can be configured individually in this aspect. It is possible to increase the frame and bit rates, independently of the continuous recording settings. After the occurrence of an event (motion detection, camera tampering etc), the NVR automatically switches to the event-recording mode (usually with higher parameters). During the rest of the time the recording is carried out in the continuous mode. The increased parameters just before and after the event allow to play back every second of the period with high detail and smoothness, while the recordings between events may have a much lower performance, taking significantly less space on the storage media.

Communication with the NVR can be set via a web browser or through free client software: iVMS 4200 (computers), iVMS 4500 or Hik-Connect (smartphones). The users can also access the device through two free cloud services: Ezviz and Hik-Connect (which is the successor of HikDDNS).

The **iVMS 4200** client software enables users of HIKVISION devices to manage them in IP networks. The software allows for configuration and management of NVRs/DVRs, IP and analog cameras (in hybrid systems). The iVMS 4200 utility can remotely manage up to 256 devices, with the use of up to 4 monitors. Oner monitor can display up images from up to 64 cameras. Aside from system configuration and live monitoring, the utility can be used for remote playback, notifying, two-way audio transmission, creating multi-level e-maps.

View of the control panel of the iVMS-4200 application

iVMS-4500 is a mobile application for smartphones running Android, iOS or Windows Phone operating systems. It can be used for live monitoring and playback of images from DVRs, NVRs, IP cameras via Wi-Fi, 2G or 3G networks.

Device Information window in the iVMS-4500 app

Live View window in the iVMS-4500 app

The users of Hikvision IP cameras and NVRs can use free **Hik-Connect** service, which provides remote access to the devices in the case of dynamic IP addresses, or allows for the use of domain names in web browsers. It is necessary to create **Hik-Connect** account and add the devices. The service can be operated via a web browser or applications (for a PC and smartphone).

ezviz

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Ezviz (EasyVision) is a free service which can be activated in Hikvision NVRs and IP cameras. This free service allows less advanced users to easily access to the video from the cameras via the Internet, without forwarding router ports. To enable remote access, the user should only connect the device to the network (which requires a valid IP address and appropriate gateway settings). The next step is the creation of user account at the **www.ezviz7.com** website. The account can accommodate devices in a local area network (with activated Ezviz service). The devices will be available from anywhere via the Internet.

SADP (Search Active Device Protocol) is a free and simple to use utility for searching Hikvision IP cameras and **Hikvision** DVRs/NVRs in the local network. The network device search tool can also be used for modification of network parameters of the Hikvision devices, including the change of passwords or recovery of default passwords. Detailed information on the software and its use is contained in the **SADP application - LAN tool for organizing CCTV systems based on Hikvision devices** article.

Specifications:

Name/Model	Hikvision DS-7604NI-K1/4P
Code	**K22045**
Standard	IP
Number of channels	4
Built-in PoE switch	Yes, 4 ports
Max. input / output data stream [Mb/s]	40 / 80
Remote connections	up to 128
HDD interface	1x SATA HDD (max. 6T)
Video outputs	HDMI, VGA
HDMI/VGA resolution modes	HDMI: Max. 4k (3840 x 2160) VGA: Max. 1080p (1920 x 1080)
Max. recording resolution	8 MP
Synchronous playback	From 4 channels
Decoding (live preview)	4x 1080p channels
S.M.A.R.T. disk monitoring	Yes
Supported camera brands	ACTI, Arecont, AXIS, Bosch, Brickcom, Canon, PANASONIC, Pelco, SAMSUNG, SANYO, SONY, Vivotek, ZAVIO, ONVIF or PSIA

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Ethernet port	RJ-45 10/100 Mb/s (Auto)
Video compression	H.265+/H.265/H.264+/H.264/MPEG4
Recording options	Continuous, schedule, motion detection, VCA
Protocols	TCP/IP, PPPoE, DNS, DDNS, NTP, SMPT, NFS, iSCSI, UPNP, RTSP
Archiving	USB memory device, remote server
ANR	Yes
Audio IN/OUT	RCA 1 / 1
Alarm IN/OUT	- / -
Other connectors	2x USB 2.0
Mobile access platforms	Android, iOS, WindowsMobile
Compatible browsers	IE, Firefox, Opera, Safari, ...
Operating temperature range	-10°C ... 55°C
Power consumption	<10 W (without an HDD)
PoE standard	IEEE 802.3 af/at
Supply voltage	48 VDC (AC/DC adapter incl.)
Dimensions (W x D x H)	315 x 240 x 48 mm
Weight	2.3 kg