



# Hybrid Digital Video Recorder Vectis HX



Vectis HX0808 1000/300  
Vectis HX1616 3000/500

## V2.1.3

Vectis HX has been designed and engineered with the next generation of hybrid technology in mind. By bridging the technological division between analog and IP surveillance capabilities, the Vectis HX has the ability to provide crisp, full HD display clarity, whilst maintaining high, feature-rich performance.

- Hybrid monitoring and digital video recording for up to 16 analogue and 16 IP cameras
- Supports basically the new range of Siemens IP cameras with ONVIF (up from ONVIF version 1.02.4 and V2.x)
- Superior H.264 recording performance with high quality image and lower bit rate
- Integration of the VSS\_SDK interface to interoperate with SiPass integrated or SiPass Entro or MM8000 systems.
- Support of Siemens IP camera event management via ONVIF2 protocol
- Recording speed up to 400 images per second (analogue) at 4CIF resolution and up to 100 images per second (IP) at 1MP1MP, or 70 images per second (IP) at 2MP
- High image quality with up to 4CIF recording for analogue cameras and up to 2 Megapixel for IP cameras (dependent on camera model)
- Full HD display via HDMI, VGA with 16:9 native resolution and 2 additional VGA display via VGA, composite
- Graphical user interface for intuitive operation, reduced training needs and enhanced productivity
- Pentaplex operation (simultaneous display, recording, playback, network and archiving)
- Massive storage capacity available with internal maximum 5 HDDs and future expansion via eSATA or iSCSI (in preparation)
- Powerful search capabilities using timeline, event/motion, date/time, calendar and ATM data
- Simultaneous search of up to 16 cameras locally and remotely over LAN
- Configurable pre-alarm recording per camera enhances functional flexibility
- Intelligent motion detection individually configurable for each camera
- PTZ control for dome and pan-and-tilt units possible from Siemens RAS, Vectis HX Software and Vectis HX Keyboard
- Multi-client function for access of up to 10 clients to one Vectis HX
- Bandwidth control for remote viewing over low-bandwidth connections
- Watchdog function to ensure safe and reliable operation
- Interface connection to CDM (ATM) or POS via LAN, RS232 and RS485
- Various remote client application including Siemens RAS, Web Client, Vectis HX Software and mobile software such as iPhone, iPod Touch, iPad, Android systems
- Siemens RAS software is able to interoperate with Vectis HX and / or SISTORE AX recorders. The total amount of visible live streams are 64 cameras, independently if they are managed by Vectis HX or SISTORE AX recorders

# Functionalities

## ■ Display mode

The display mode is the unit's normal operating mode. In addition to live images displayed from selected cameras, all events such as loss of video and alarms are logged.

## ■ Playback mode

The playback mode is used to review recorded video footage. Vectis HX allows flexible and precise searching for specific events to quickly find the required video footage. The HX has pentaplex capability so playing back footage does not affect either live view or recording speed. Archiving of video footage is possible via standard USB devices or the internal DVD burner.

## ■ Configuration mode

Configuration mode is used for the following operations:

- Administration of user rights
- Configuration of the analogue and digital (IP) cameras including brightness, contrast and colour saturation, as well as digital inputs and outputs and serial inputs
- Camera parameter settings for motion detection, alarm contracts, signal outputs and other events related options
- Network parameters including bandwidth control

## ■ Technical data

### Recording speed

(guaranteed performance)

Analogue cameras: Notification for 16 connected cameras:

CIF: 400ips (PAL) / 480ips (NTSC)

2CIF: 240ips (PAL) / 240ips (NTSC)

4CIF: 120ips (PAL) / 120ips (NTSC)

IP cameras (Siemens ONVIF IP camera):

CIF: 100ips / 2CIF: 100ips / 4CIF: 100ips

1MP: 100ips / 2MP: 70ips

### Playback speed

(due to load of the system the performance can be reduced)

CIF: 100ips (PAL) / 120ips (NTSC or progressive)

2CIF: 100ips (PAL) / 120ips (NTSC or progressive)

4CIF: 100ips (PAL) / 120ips (NTSC or progressive)

1MP: 48ips (Progressive)

2MP: 24ips (Progressive)

### Display speed

(due to load of the system the performance can be reduced)

CIF: 100ips (PAL) / 120ips (NTSC or progressive)

2CIF: 100ips (PAL) / 120ips (NTSC or progressive)

4CIF: 100ips (PAL) / 120ips (NTSC or progressive)

1MP: 48ips (Progressive)

2MP: 24ips (Progressive)

### Video inputs

8/16 analogue, 1 Vp-p, auto-terminating, 75 Ohms

8/16 IP camera inputs via network

### Video outputs

Primary Monitor

- HDMI: 1 HDMI

- VGA: 1

- Composite: 1 BNC, 1 Vp-p, 75 Ohms

Secondary Monitor

- VGA : 1

- Composite : 1 BNC, 1 Vp-p, 75 Ohms

SPOT: 1 BNC, 1 Vp-p, 75 Ohms

### Supported IP cameras

Actually only the new range of Siemens IP cameras is fully supported.

These models are: CxMx1025, CxIS1425, CxMx2025, CCID1445-DN18/28/36

**Remark concerning PTZ control** off IP Speed Domes (e.g. CCID1445-xx) with front controls, mouse or Vectis HX IP Keyboard at the Vectis HX HVR:

→ IP operational units (e.g. Dome, Keyboard) are affected by the load and given performance of a network infrastructure. This can be observed by a significant latency of PTZ movements and / or latency of video images.

<b>Supported resolutions</b>	In general: analogue CIF / 2CIF / 4CIF, IP cameras: VGA, 1 MP, 2 MP = max. 2 megapixels depending on the camera In details: 352x240 / 352x288 / 640x480 / 704x240 / 704x288 / 704x480 / 704x576 / 800x600 / 1280x720 / 1280x960 / 1280x1024 / 1920x1080
<b>ONVIF compatibility</b>	The currently released Siemens IP cameras are certified according to the ONVIF specification, version 1.02.4 and V2.x. The goal of ONVIF is to standardize video components to a large extent. Please note, however, that there is no guarantee that the integration will work, even if all the products used are ONVIF-certified. This applies to ONVIF-certified products from all manufacturers, including the currently released cameras. When planning systems that comprise products from outside manufacturers, the compatibility of these products needs to be investigated first.
<b>Video standard</b>	PAL or NTSC (auto-detect)
<b>Compression</b>	H.264
<b>Audio inputs</b>	RCA Input: 8 or 16 Line In
<b>Audio outputs</b>	RCA Output: 1, Line Out
<b>Network connections</b>	10/100/1000Mbps Ethernet (RJ-45)
<b>Bandwidth limitation for Client PC</b>	Vectis HX HVR supports 100ips for all connected Client PC, e.g. 1 Client PC = 100ips / 4 Client PC = 25 ips per Client as maximum
<b>Alarm inputs</b>	8 or 16 terminal, programmable as NC or NO, 2.4V (NC) or 0.3V (NO) threshold, 5VDC
<b>Alarm outputs</b>	4 relay output, programmable as NC or NO, 2A@125VAC, 1A@30VDC
<b>Alarm reset input</b>	1 TTL, terminal block
<b>Internal buzzer</b>	80dB at 10cm
<b>Interfaces</b>	1 x RS485 / 1 x RS232 / 2 x USB 2.0 / 1 x HDMI / 2 x VGA / 2 x Composite / 1 x iSCSI / 1 x eSATA / 1 x RJ45 (for IP network)
<b>Usage of eSATA interface</b>	- foreseen for storage tanks (hard drive unit with several plugged-in HDD's) - the external hard drives will be used in the same manner as the internal drives and do increase the total amount of hard drive capacity - external drives are not able to use the integrated RAID1 function of the Vectis HX unit - the eSATA interface will be supported by first devices from summer 2013
<b>Usage of iSCSI interface</b>	- actually not supported by Siemens FSS SP - usage for iSCSI storage devices will be decided after phase_2 market release
<b>Hard disk capacity</b>	Max. 5 hard disks SATA (actually 1 TB each, later-on >1 TB each ) in case of not using eSATA port interface Max. 4 hard disks SATA (actually 1 TB each, later-on >1 TB each ) in case of using eSATA port
<b>Internal RAID</b>	Optional setting within configuration Type of RAID = RAID1 (mirror function of two internal hard disks) <b>Remark:</b> if 2 * 1 TB HDD are fitted and RAID1 function is activated only 1 TB data capacity can be used for recording purposes
<b>Backup recording media</b>	Network / USB / DVD burner
<b>Display resolution</b>	Max. 1920 x 1080
<b>Playback</b>	Individual images, forward/backward, pause (frozen image)
<b>Image search</b>	By means of date, time, camera number, recording event, logbook, event/motion, text-in
<b>Language, selectable</b>	German, English, French, Italian, Spanish, Swedish Czech, Danish, Dutch, Finnish, Polish, Portuguese, Russian, Turkish
<b>Approvals</b>	CE, UL, FCC, C-Tick, CB, KCC, KC, PSE and UVV Kassen LGC Forensics (Kalagate), SI and FI in preparation
<b>Power supply</b>	100 to 240 VAC, 2.0 – 1.0 A, 50/60Hz
<b>Power consumption</b>	Max. 100 W
<b>MTBF</b>	54.575 hrs

<b>Noise level (normal mode of operation)</b>	45 dB
<b>Ambient temperature, operating</b>	5°C to 40°C (41°F to 104°F)
<b>Relative humidity</b>	0% to 90%
<b>Design variants</b>	19", 2 RU
<b>Dimensions (W x H x D)</b>	Unit, netto: 430mm x 88mm x 490mm (16.9" x 3.5" x 19.3") // Weight 10,4 kg Unit, incl. package: 683mm x 271mm x 530mm // Weight 14 kg
<b>Contents of included CD</b>	<p>Siemens RAS software module for usage with Vectis HX and SISTORE AX DVR systems :</p> <ul style="list-style-type: none"> <li>➤ Live images of up to 64 cameras in total</li> <li>➤ Playback of up to 64 recording channels</li> <li>➤ Configuration of all connected DVRs and cameras</li> <li>➤ PTZ control and managing of events</li> </ul> <p>Browser application Web Client to operate in the same manner as with Siemens RAS</p> <p>Recommended Client PC for both software applications :</p> <ul style="list-style-type: none"> <li>➤ Intel based Standard PC up from Pentium IV or higher (multi core CPU)</li> <li>➤ 2 GB RAM or more , 500 GB hard disk or more</li> <li>➤ VGA : 32 MB or more (1024x768, 24 bpp or higher)</li> <li>➤ Win 7 (32 bit) or Win XP SP3 (32 bit)</li> </ul> <p>All product manuals in the languages as mentioned above (as available)</p>

## ■ Details for ordering

Type	Part no	Designation	Weight*
Vectis HX0808 1000/300	S54569-C100-A2	Vectis HX0808 HVR, 1000GB, 300ips	Approx. 14kg
Vectis HX1616 3000/500	S54569-C100-A1	Vectis HX1616 HVR, 3000GB, 500ips	Approx. 14kg

\* Device incl. packing material, accessories that are included in the delivery, and documentation

Further products and accessories can be found in the Internet: [www.siemens.com/securityproducts](http://www.siemens.com/securityproducts).

The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

© Siemens AB • Document no. A6V10356573 • Edition: 01.2014

[www.siemens.com/securityproducts](http://www.siemens.com/securityproducts)

Siemens AB  
Infrastructure & Cities  
Security Products  
International Headquarters  
Englundavägen 7  
SE-171 24 Solna  
Tel. +46 8 629 0300  
[www.siemens.com/securityproducts](http://www.siemens.com/securityproducts)