

Bosch DiBos Digital Video Recorders

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Bosch Security Systems launched on the market some state of the art digital video recorders, which can be integrated in an overall security solution for public or corporate offices, banks, retailers or industrial facilities.



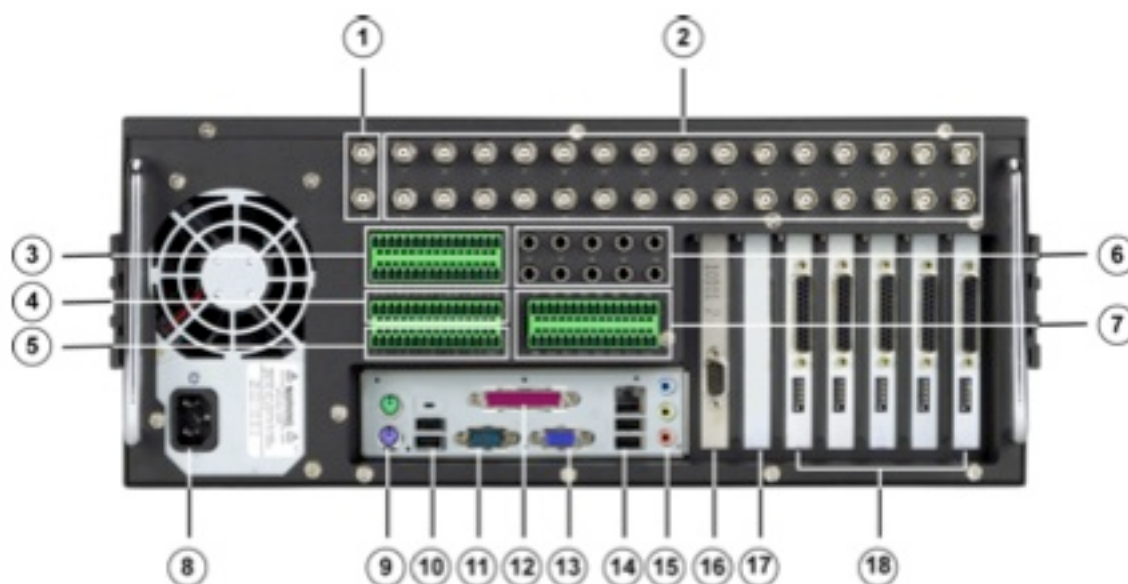
(all photos : [Bosch Security Systems](http://www.bosch-security.com))

The main characteristics of the DiBos digital video recorders are flexibility and scalability. In total three different models are available: the DiBos, the DiBos Micro and the DiBos Receiver/IP Recorder. The first two being sold in combination with a computer system, the DiBos Receiver/IP Recorder is a software solution and can run on any Windows XP personal computer with an at least 2 GHz Pentium 4 processor and a free USB slot for the connection with the USB dongle protection. Another limitation of the DiBos Receiver is the ability of capturing video from IP camera's only, in contrast with the DiBos and the DiBos Micro that can also capture live video from local cameras.

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DiBos :



1	Video monitor A/Video monitor B	10	2x USB 2.0
2	Video inputs 1 - 30	11	Serial port COM1
3	Alarm inputs 1 - 21	12	Parallel interface Note: Dongle must be plugged in
4	Alarm inputs 22- 32	13	VGA monitor
5	Biphase 1 - 4, malfunction outputs 1	14	Ethernet (RJ45) - 2x USB 2.0
6	Audio inputs 1 - 10	15	Line In (blue) Speaker Out (green) Microphone In (red), Mono
7	Relay outputs 1 - 16	16	Second serial port
8	Mains connection 100 / 240 VAC, 50 / 60 Hz (automatic switchover)	17	Free for optional PCI plug-in cards
9	Mouse (green) - Keyboard (purple)	18	Grabbers 1 - 5

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DiBos Micro :



1	On/Off switch	7	VGA monitor
2	Mains connection 100 / 240 VAC, 50 / 60 Hz (automatic switchover)	8	Ethernet (RJ45) - 2x USB 2.0
3	Mouse (green) Keyboard (purple)	9	Line In (blue) Speaker Out (green) Microphone In (red), Mono
4	2x USB 2.0	10	Grabber 1 (camera 1 - 6)
5	Serial port COM1	11	Grabber 2 (camera 7 - 12)
6	Parallel interface Note: Dongle must be plugged in	12	I/O card with plug for connecting the alarm inputs and relay outputs and sokket for video monitor A and video monitor B

DiBos Receiver (software only) :



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To start off just a small overview of the different models :

DiBos : (maximum 5 grabber cards)

Video Input analog channels : up to 30 (6 per grabber card)
Video Input network devices : 32 (16 when < 4 grabber cards)
Video Output : 1 VGA + 2 Spot monitors
Audio Input analog channels : up to 10 (2 per grabber card)
Audio Input network devices : 32 (16 when < 4 grabber cards)
Audio Output : 1
Recording Frame Rate (fps) : 90/75 (NTSC/PAL) CIF (/grabber card)
60/50 (NTSC/PAL) 2CIF (grabber card)
Recording Frame Rate (fps) : 450/375 (NTSC/PAL) CIF (max.)
300/250 (NTSC/PAL) 2CIF (max.)
Recording Frame Rate (fps) : 30/25 (NTSC/PAL) CIF per IP camera
: 14/14 (NTSC/PAL) 2CIF per IP camera

DiBos Micro : (maximum 2 grabber cards)

Video Input analog channels : up to 12 (6 per grabber card)
Video Input network devices : 8
Video Output : 2 Spot monitors
Audio Input analog channels : up to 4 (2 per grabber card)
Audio Input network devices : 8
Audio Output : 1
Recording Frame Rate (fps) : 90/75 (NTSC/PAL) CIF (/grabber card)
60/50 (NTSC/PAL) 2CIF (grabber card)
Recording Frame Rate (fps) : 180/150 (NTSC/PAL) CIF (max.)
120/100 (NTSC/PAL) 2CIF (max.)
Recording Frame Rate (fps) : 30/25 (NTSC/PAL) CIF per IP camera
: 14/14 (NTSC/PAL) 2CIF per IP camera

DiBos Receiver/IP Recorder :

Video Input analog channels : 0
Video Input network devices : 0,16,32
Video Output : none
Audio Input analog channels : none
Audio Input network devices : 0,16,32
Audio Output : 1
Recording Frame Rate (fps) : 30/25 (NTSC/PAL) CIF per IP camera
: 14/14 (NTSC/PAL) 2CIF per IP camera

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One can immediately notice the advantage when using IP cameras. While the recording frame rate is limited when using analog cameras to 75 frames per second (CIF/PAL) to be shared amongst the cameras per grabber card, each IP camera can be captured at up to 25 frames per second, irrespective of the number of IP cameras installed.

The Bosch DiBos digital video recorders are the core elements for any integrated security solution :

First of all, the Bosch DiBos digital video recorders can be connected to PTZ cameras (Pan, Tilt, Zoom) like the Bosch Envirodome Camera Systems, to analog cameras or to IP cameras like the Bosch Dinion cameras. They can also be connected to the Bosch G-series control panel series for event



logging or event-triggered recording, to smoke detectors or even to customer operated ATM terminals (maximum 4 ATMs). Other options include: opening gates, switching on lights, activating alarms and controlling dome cameras.



The Bosch DiBos recorders support Bilinx and Bi-phase for a fast and efficient installation. The set-up and configuration is handled by a software wizard that automatically shows all the available cameras. Bilinx (Bi-directional Communication Technology) enables setup and PTZ control without separate cables, considerably reducing the installation efforts.

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The Bosch DiBos digital video recorders use the latest MPEG 4 technology for encoding the video images, thereby providing superior images and making optimum use of network bandwidth and storage capacity. The recorded image quality can be automatically changed upon motion detection, alarm detection or according to a schedule to optimize information content.

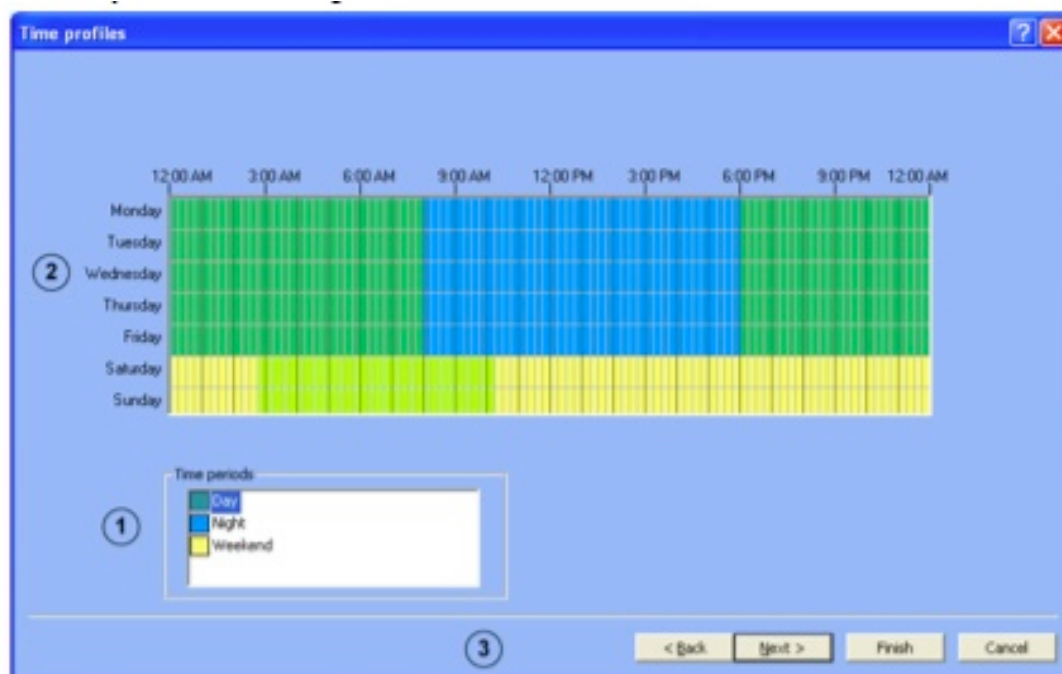
The Bosch DiBos with its advanced MPEG 4 encoding, can per storage unit record at least 3 times more high quality video than competitor systems using MPEG 2 recorders. Compared to the Wavelet technology, the MPEG 4 encoding is at least 4 times as effective. Using JPEG compression the storage requirements are more or less 6 times as high than using MPEG 4 encoding. Reducing the frame rate can have big impacts on security. Considering the following video images, one can imagine the importance of being able to record at a 6 times higher frame rate.



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The recording of the camera images can be scheduled as each camera can be assigned a time profile :



Three types of recording are available per camera continuous recording, motion recording and alarm recording, each having their own recording rate (frames per second) and image quality, during the day, at night and during the weekend. Pre-alarm time for recording can be set from 0 to 120 seconds with a minimum recording rate of 2 frames per second. The post-alarm time can be set from 0 to 999 seconds.

The Bosch DiBos comes with a hard drive up to 1.6 Terabytes, the Bosch DiBos is limited up to 400 GB of internal storage. This capacity can be extended using the SCSI adapter with various Bosch hard drives for a capacity up to 16 TB. RAID, NAD devices and external hard drives may be used for exporting, backup or image sharing. Export to CD or DVD has never been easier with the built in one button recording feature, one just needs to select a date and time range, a title and a format, Bosch DiBos does the rest, including formatting the media.

For each camera different setting are available, including the display of warnings on camera problems (too dark, light, noisy ..). A warning can be displayed when no signal comes from the camera. Bilinx settings, image settings (hue, saturation, contrast, color) can be set. The gain can either be set to automatic or can be set manually using a slider. A

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motion detection area can be set, excluding areas from being assessed for motion detection. Additional information (including date and time) can be superimposed on the images. The level of the audio can also be adjusted. An age limit can be set for the image data, so that old data is automatically deleted by the system.



The Bosch DiBos comes with embedded web server software enabling the access to live images and recorded images from any location via the Internet Remote PTZ control of cameras and control of remote relays is also included. The DiBos http interface can be customized to a specific look and therefore be seamlessly integrated in a corporate website. Access to the system is subject to appropriate user authentication, using profiles assigned by the system administrator. The events (login, logoff, image transmission,..) are logged in a central database. Video authentication is also built into the system to ensure that the DiBos video images are not altered in any way.

The Bosch DiBos recorders also offers powerful retrieval features, the video images of multiple cameras can playback in a synchronized way, smooth and at variable speed. The Bosch DiBos also provides a single click camera selection and playback with an adjustable jump-back time for quick image scanning.

For more information please contact Bosch Security Systems :

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Bosch Security Systems, Inc. (USA) +1.800.326.3270 or

Website :

<http://www.boschsecurity.com>