

## DIVAR hybrid 5000 recorder

www.boschsecurity.com



**BOSCH**

Invented for life



- ▶ Hybrid recording of up to 16 IP and 16 analog channels
- ▶ Extended rack-mount unit with advanced connections
- ▶ 12 MP IP camera support for view and playback
- ▶ Separate internet and IP camera networks
- ▶ RAID 1 and 5 support

The DIVAR hybrid recorders can simultaneously record and view video from traditional analog cameras as well as the latest IP cameras. The recorder can be connected to the following camera configurations:

- a maximum 32 IP cameras recording at resolutions up to 12MP
- a maximum 16 analog cameras recording at resolutions up to 960H
- a combination of maximum 16 analog cameras and maximum 16 IP cameras

These advanced technologies, coupled with efficient network data transmission, deliver the high security and reliability required for modern surveillance systems. Simultaneous remote or local monitoring, recording, archive and playback functions are guided by simple menu selections and operator commands. The recorders can be installed with a maximum of 4 internal HDDs for video storage. Another option is two HDDs for storage, plus a DVD burner for video export.

### Functions

#### Latest video compression technology

The DIVAR supports H.264 and H.265 video compression technology. This technology dramatically reduces bandwidth and storage requirements while still delivering superb image and audio quality.

Equipped with this newest video technology, DIVAR gives you the full benefits of the latest high-resolution cameras. The proof is in the pixels.

#### Camera IP support

The recorder supports native camera integration with Bosch IP cameras which provides easy installation, configuration and maintenance options. This allows plug-and-play connectivity as the installer can connect and configure the cameras to the recorder without having to open every camera individually on a web client. For further configuration 3rd party cameras are supported through the ONVIF Profile S protocol.

#### Simultaneous record and view

The DIVAR records multiple video and audio signals while simultaneously providing live multi-screen viewing and playback. Comprehensive search and playback functions provide quick recall and viewing of recorded video.

#### Simple operation

The DIVAR is very easy to install and use. Simply connect the cameras, apply power, and follow the simple Install Wizard steps for initial setup. The unit can then record automatically with no further intervention required.

## DDNS

Bosch offers its customers free Dynamic Domain Name Services (DDNS) for access to network-connected devices via a "friendly" hostname without the need for costly static IP addresses. This makes it easier for uninterrupted access to important video from devices regardless of their location.

## Alarms

All models have extensive alarm handling functions and telemetry control. Alarm functions include local inputs and relay outputs, plus motion detection in user-defined areas. If an alarm is detected, the DIVAR can:

- send an e-mail notification and/or FTP push
- sound a buzzer and/or display a warning
- activate local alarm output

## Local control

The unit can be easily operated and programmed via the on-screen display menu system using:

- the supplied mouse
- the front panel control keys
- the supplied remote control
- push notification

## Inputs and outputs

Video inputs, audio inputs/output, and alarm inputs/outputs are located on the rear panel.

Two video connectors (VGA/HDMI) provide simultaneous output for monitor A for live display (with zoom) and playback (display can be frozen and zoomed). The displays allow full-screen, multi-screen, and sequenced viewing.

## Network control

Use the PC software or built-in web application via a network for live viewing, playback, and configuration.

## Watermark

The DIVAR includes an authenticity check for both local and remote archives, ensuring recording integrity. An Archive Player is provided for playback of secure video files and to check if video is authentic.

## Smartphone App

A DIVAR Viewer App from Bosch for iOS and Android devices is available for:

- live and playback viewing
- recorder configuration
- PTZ control

This means you can watch live video from cameras connected to the DVR from anywhere in the world. You can also control focus, pan, tilt and zoom on PTZ-enabled cameras.

Furthermore, the smartphone App supports remote push notifications. In this way you are automatically notified if an alarm occurs on the device and can take immediate action, even if you are not actively monitoring the system at that moment.

## Dome control

The DIVAR can control IP pan/tilt/zoom (PTZ) equipment using commands sent via IP connection. It also supports Focus, Iris and Aux commands for Bosch cameras. RS-485 / RS-232 ports are available for serial communication to analog PTZ devices.

## Panoramic cameras

The DIVAR supports dewarping of Bosch panoramic cameras. The following modes are supported: pan/tilt/zoom (PTZ), panoramic, corridor and quad. Dewarping in the camera can also be selected if the connected IP panoramic camera supports this.

## Intuikey keyboard

One Bosch Intuikey keyboard can be connected to this unit to control dome cameras.

## RAID software

Units installed with 2 HDDs can support RAID 1 software for mirroring drives. Units installed with 4 HDDs can support RAID 5 software.

Using RAID has a large impact on the system performance. To keep the playback smooth, Bosch recommends to limit the playback to 4 channels.

## Supported protocols

The DIVAR supports Bosch protocol and Pelco P and D protocol.

## Certifications and approvals

Standards	
Alarm	EN 50130-5:2011, Alarm systems - Part 5: Environmental test methods, Class I, Fixed equipment
Lightning protection	To ALL long input / output - and supply-wiring. Alarm inputs and relay output, Video inputs and Outputs, dome-control outputs, power-cable, Audio In/Out. ± 0.5, 1kV line to line, ± 0.5, 1 and 2kV line to earth

EMC + Safety - Europe	
EU Directives	2014/35/EU (LVD), 2014/30/EU (EMC), 2011/65/EU (RoHS)
EMC Emission	EN 55032:2012/AC2013, class B
EMC Immunity	EN 50130-4:2011/A1:2014
EMC mains Harmonics	EN 61000-3-2:2014
EMC Mains fluctuations	EN 61000-3-3:2013
LVD Safety	CB scheme + IEC/EN/UL 62368-1:2014/AC:2015
RoHS	EN 50581:2012

### EMC + Safety - USA and Canada

EMC USA	47CFR part 15 (FCC), Class B
Safety USA (UL, cUL)	UL 62368-1, Edition 2, Dec 1, 2014
Safety Canada	CAN/CSA-C22.2 No. 62368-1

### India

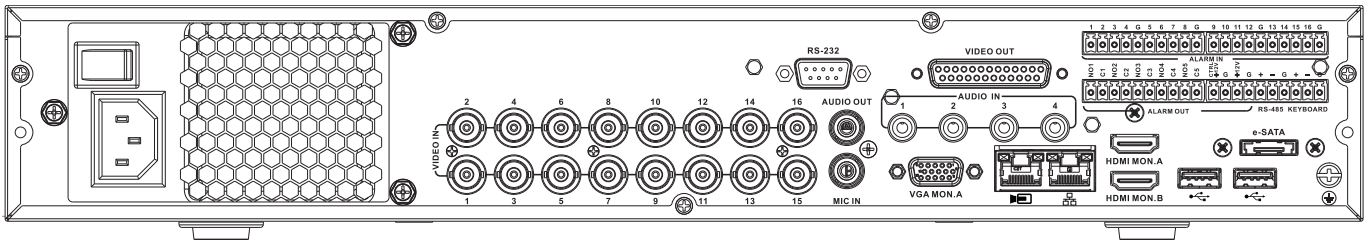
BIS (Bureau of Indian Standards)	BIS registration for external Power adapter (comes / packed with the main product)
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### Australia



ACMA EMC	RCM logo on product label
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Region	Regulatory compliance/quality marks	
Australia	RCM	DOC SAL hybrid 5000
	RCM	DOC SAL Variant hybrid 5000
Europe	CE	ST-VS 2016-E-087
USA	UL	FCC & UL
	FCC	FCC & UL

### Installation/configuration notes



<b>VIDEO IN</b>	16 BNC for connecting max. 16 analog cameras
	Max. 16 IP cameras connected with external switch (if no analog cameras are connected, an extra 16 IP cameras can be connected)
	RJ45 Ethernet connection (10/100/1000Base-T according to IEEE802.3)
<b>VGA MON.A</b>	1 D-SUB (Monitor output)
<b>HDMI MON.A</b>	1 HDMI (Monitor output)
<b>HDMI MON.B</b>	1 HDMI (output for spot monitor that supports live multiscreen)
<b>ALARM IN</b>	16 screw terminal inputs, cable diameter AWG26-16 (0.4–1.29 mm)
<b>ALARM OUT</b>	6 screw terminal outputs, cable diameter AWG26-16 (0.4–1.29 mm)
<b>AUDIO IN</b>	4 RCA (Audio inputs)
<b>AUDIO OUT</b>	1 RCA (Audio output)
<b>MIC IN</b>	1 RCA (Audio input)
<b>RS-485</b>	Screw terminal output (Dome control)
<b>KEYBOARD</b>	Screw terminal output (Keyboard)
<b>VIDEO OUT</b>	D-sub (loop through to other devices)
<b>RS-232</b>	DB9 male, 9-pin D-type (Dome control)

	Two USB (3.0) connectors for mouse or USB memory device; one USB (2.0) also on front panel
<b>eSATA</b>	For backup/memory device
Power input with On/Off switch	100~240 VAC, 50-60 Hz, 1.9 A, 75 W
	Ground connection

### Technical specifications

#### Mechanical

Dimensions (WxDxH)	440 x 408 x 76 mm (17.3 x 16.1 x 3.0 in)
Weight (excluding HDD(s) and DVD)	6.67 kg (14.7 lb) approx.

#### Power

AC input	100-240 VAC; 50-60 Hz; 1.9 A
RTC battery on main PCB	Lithium CR2032, 3 VDC
Maximum power consumption (no HDD)	20 W

Environmental	
Operating temperature (incl. HDD(s) and DVD)	+0°C to +40°C (+32°F to +104°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Operating humidity	<93% non-condensing
Storage humidity	<95% non-condensing
Video storage	
Internal (option)	Max. 4 SATA HDD or 2 SATA HDD + 1 DVD (R/RW) Max. capacity per HDD: 6 TB Max. supported speed per HDD: 6 Gb/s
External (option)	eSATA-connected storage device
Alarms and detections	
Motion detection set by camera	Essential or Intelligent Video Analytics (IVA), Motion +
Alarm activations	Video loss, motion detection, input alarm, system alarm
Events triggered by alarm	Recording, PTZ movement, alarm out, email, buzzer, screen message, Mon A and B activated, mobile push notification
Inputs	16 inputs configurable NO/NC, max. input voltage 5 VDC
Outputs	5 relay outputs, 1 open collector
Relay contact	Max. rated, 30 VDC, 2 A continuous or 125 VAC, 1 A (activated)
Exporting	
DVD (optional)	Built-in DVD+R/RW writer
USB	Flash memory or external HDD (FAT32)
Network	Web Client software or Video Client
Playback	
Multi-channel	Simultaneous 1/4/9/16 channels
Mode	Forward, reverse, slow play, fast play, frame-by-frame
Search	Time, channel, type, smart
Network	Video Client, Web client, App
Restrict	Restrict video by user rights for viewing
Protection	Protect video against overwriting
Retention time	Automatically delete recordings after 1 to 365 days

Recording	
Decoding compression	H.265/H.264/MJPEG
Speed	Max. 60 IPS per channel, configurable
Bit rate	16 kbps to 24 Mbps per channel
Record interval	1~120 min (default: 60 min), Pre-record: 1~30 sec, Post-record: 10~300 sec
Mode	Manual, Scheduled (regular, motion detection, alarm), Stop

Network control	
Ethernet	RJ45 port (10/100/1000 Mbps)
PC software	Video Client, Web client
APPS	iPhone, Android
User access	Maximum 128 users. Bosch advises a maximum of 4 simultaneous connections. More connections can cause performance limitations.
Protocols	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS/DDNS, IP Filter, PPPoE, FTP

Video performance	
Maximum camera inputs	16 analog + 16 IP or 32 IP
Maximum incoming bandwidth	320 Mbps
Maximum recording bandwidth	256 Mbps
Maximum transmission bandwidth	128 Mbps
Resolution IP camera	12MP, 8MP, 6MP, 5MP, 3MP, 1.3MP, 1080p, 720p
Resolution analogue camera	960H, D1, HD1, CIF, QCIF

Display	
Resolution IP camera	3840×2160, 1920×1080, 1280×1024, 1280×720, 1024×768
Resolution analogue PAL	970x576, 704x576, 352x576, 352x288, 176x144

Display	
Resolution analogue NTSC	960x480, 704x480, 352x480, 352x240, 176x120
OSD	Camera title, Time, Video loss, Motion detection, Recording, PTZ
Audio	
Input	4 channel (via RCA) 200 to 3000 mV, 10 kOhm
MIC Input	1 channel (via RCA) 200 to 3000 mV, 10 kOhm
Output	1 channel (via RCA) 200 to 3000 mV, 5 kOhm
Direction	Bidirectional (audio input and output connected via device)

## Ordering information

### **DRH-5532-400N00 Recorder 16ch IP, 16ch AN, 1.5U, no HDD**

High-resolution recorder for IP and analog surveillance systems.

Recorder 16ch IP/16ch AN 1.5U w/o HDD

Order number **DRH-5532-400N00**

### **DRH-5532-414N00 Recorder 16ch IP/16ch AN 1.5U 1x4TB**

High-resolution recorder for IP and analog surveillance systems.

Combination of up to 16 IP and 16 analog camera channels.

1 HDD (4 TB)

Order number **DRH-5532-414N00**

### **DRH-5532-214D00 Recorder 16ch IP/16ch AN 1.5U 1x4TB DVD**

High-resolution recorder for IP and analog surveillance systems.

Combination of up to 16 IP and 16 analog camera channels.

1 HDD (4 TB); 1 DVD

Order number **DRH-5532-214D00**

### **Accessories**

#### **DVR-XS200-A HDD expansion 2TB**

Storage expansion kit. 2 TB

Order number **DVR-XS200-A**

#### **DVR-XS300-A HDD expansion 3TB**

Storage expansion kit. 3 TB

Order number **DVR-XS300-A**

#### **DVR-XS400-A HDD expansion 4TB**

Storage expansion kit. 4 TB

Order number **DVR-XS400-A**

#### **DVR-XS600-A HDD expansion 6TB**

Storage expansion kit. 6 TB

Order number **DVR-XS600-A**

#### **DVR-XS-DVD-B DVD writer expansion B**

DVD writer Expansion kit B

Order number **DVR-XS-DVD-B**