

DIVAR hybrid 5000 recorder

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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 video compression technology and is H.265-ready for the newest H.265 technology cameras to be released by Bosch. 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 Bosch IP cameras (and 3rd party IP cameras) complying to the ONVIF Profile S specifications.

The recorder only supports IP cameras with a firmware version 6.30 or higher.

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

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.

Dome control

The DIVAR can control pan/tilt/zoom (PTZ) equipment using commands sent via IP connection (using ONVIF protocol for supported devices).

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

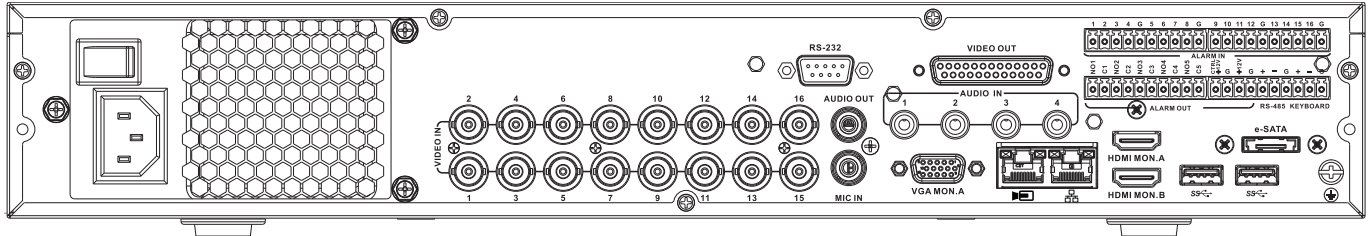
The DIVAR supports Bosch protocol and Pelco P and D protocol.





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

Region	Regulatory compliance/quality marks	
USA	UL	FCC & UL
	FCC	FCC & UL

Installation/configuration notes



VIDEO IN	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)
VGA MON.A	1 D-SUB (Monitor output)
HDMI MON.A	1 HDMI (Monitor output)
HDMI MON.B	1 HDMI (output for spot monitor that supports live multiscreen)
ALARM IN	16 screw terminal inputs, cable diameter AWG26-16 (0.4–1.29 mm)
ALARM OUT	6 screw terminal outputs, cable diameter AWG26-16 (0.4–1.29 mm)
AUDIO IN	4 RCA (Audio inputs)
AUDIO OUT	1 RCA (Audio output)
MIC IN	1 RCA (Audio input)
RS-485	Screw terminal output (Dome control)
KEYBOARD	Screw terminal output (Keyboard)
VIDEO OUT	D-sub (loop through to other devices)
RS-232	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
eSATA	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, 75 W

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,
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. 30 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

Network control

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
Resolution IP camera	3840×2160, 1920×1080, 1280×1024, 1280×720, 1024×768
Resolution analogue PAL	970x576, 704x576, 352x576, 352x288, 176x144
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 w/o 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-XS100-A 24/7 SURVEILLANCE HDD EXPANSION 1TB

Storage expansion kit. 1 TB

Order number **DVR-XS100-A**

DVR-XS200-A 24/7 SURVEILLANCE HDD EXPANSION 2TB

Storage expansion kit. 2 TB

Order number **DVR-XS200-A**

DVR-XS300-A 24/7 SURVEILLANCE HDD EXPANSION 3TB

Storage expansion kit. 3 TB

Order number **DVR-XS300-A**

DVR-XS400-A 24/7 SURVEILLANCE HDD EXPANSION 4TB

Storage expansion kit. 4 TB

Order number **DVR-XS400-A**

DVR-XS600-A 24/7 SURVEILLANCE HDD EXPANSION 6TB

24/7 SURVEILLANCE HDD EXPANSION 6TB

Order number **DVR-XS600-A**

DVR-XS-DVD-B DVD writer Expansion kit B

DVD writer Expansion kit B

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

Represented by:

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: + 31 40 2577 284
emea.securitysystems@bosch.com
emea.boschsecurity.com

Germany:
Bosch Sicherheitssysteme GmbH
Robert-Bosch-Ring 5
85630 Grasbrunn
Germany
www.boschsecurity.com

North America:
Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
onlinehelp@us.bosch.com
www.boschsecurity.us

Asia-Pacific:
Robert Bosch (SEA) Pte Ltd, Security Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia