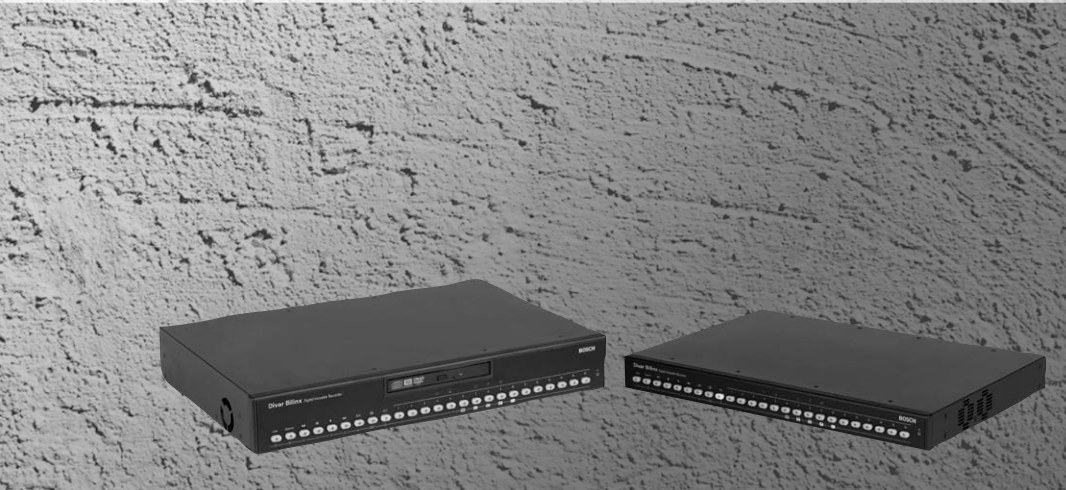


# Divar - Digital Video Recorder



## Security Systems



- 6, 9 & 16-channel versions
- Bilinx communication
- Simultaneous recording, playback & archiving
- AutoDome control
- Smart motion search
- Authenticated images for evidence
- Multiple Divar 'control center' for remote operation
- Internal or external DVD writer

The Bosch Divar digital versatile recorder series are extremely compact, low profile units that combine advanced digital recording and multiplexing, not only saving space, but ensuring integrated functionality. The Divar has been designed with both operator and installer in mind, by making the unit easy to use and install, and maintenance free. The Divar allows simultaneous recording and playback of video images. "Overwrite protection" of marked video clips prevents the loss of vital material.

The images per second (IPS) record rate and image quality are selectable for each connected camera. This makes it possible to prioritize recording between high-risk areas and low risk areas. By having a higher refresh rate only for critical or high-risk security areas, considerable hard disk space can be saved. Recording rates of 50 IPS (PAL) or 60 IPS (NTSC) are guaranteed, without the need for synchronization.

As well as control of external alarm inputs, the Divar's motion detector triggers an alarm when movement in a user-definable area of the image is detected.

Smart motion search can be used for easy retrieval of motion

that has taken place within a user-specified part of the image during a specified time-span.

The Divar is expandable with an optional keyboard, allowing AutoDome control as well as enhanced playback control. Where video is required for evidence of an incident, it is simple to archive the video with a dedicated PC player for playback of the secure video files to a DVD or CD with the internal or external DVD writer. The Divar uses video authentication that can automatically detect any alteration of the recorded video.

For easy installation, a "Quick install" feature is included. Additionally, on-screen menus are provided in several languages and context sensitive help is always available by just pushing the yellow button. A configuration tool is supplied to simplify setting up a system using a PC. Because Divar is available with Bilinx, functions usually requiring hands-on access to a camera now use the video cable to communicate with Bilinx cameras.

Owing to its high degree of integrated functionality, the Divar can be the central element in a self-contained security system

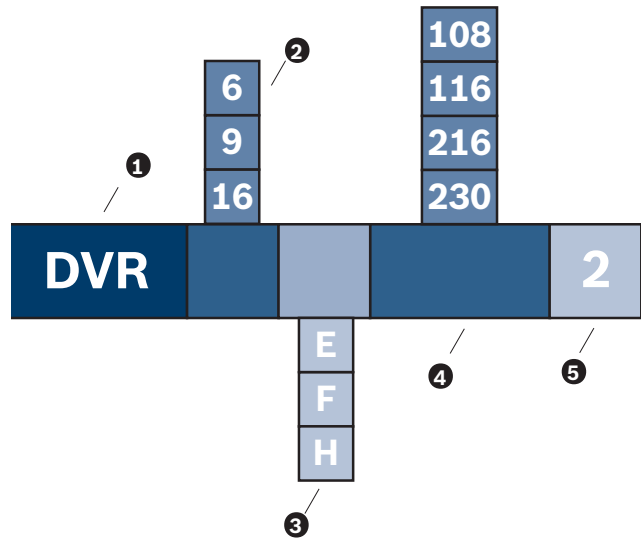
with up to 256 cameras. Because the Divar is fully compatible with any standard 10/100 Base-T network, it is ideal for distributed security surveillance systems.

An optional ATM/POS bridge enables financial transaction details to be recorded together with video. This makes the Divar suitable for use at cash dispensers, check out desks and other similar applications where it is sometimes necessary to verify or identify what happened during a particular transaction.

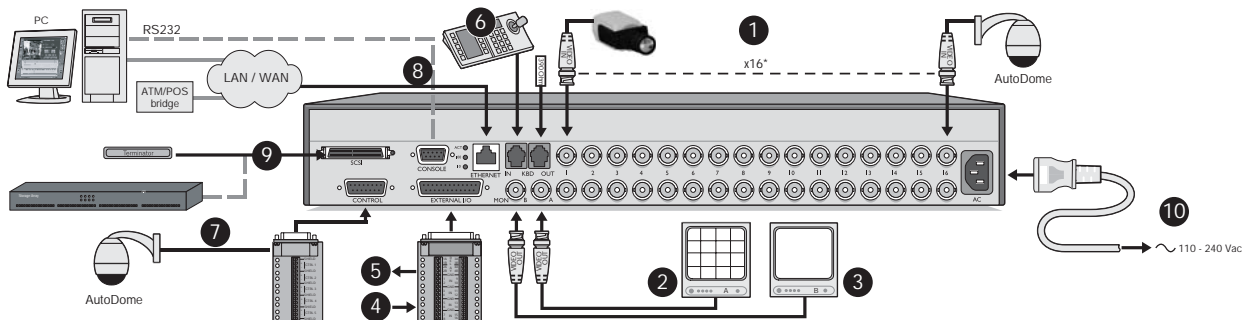
Full control is also possible when using the user-friendly Control Center software that allows remote viewing of live and recorded video from multiple Divars at the same time. This makes it ideal for multiple location systems such as chains of shops or fast food outlets. Using Internet Explorer, the Divar can also be accessed to view live action or playback archived event without special software or tools.

Where additional storage is required, optional storage arrays can be connected to expand the storage capacity. It is even possible to calculate the required capacity by visiting [www.boschsecuritysystems.com](http://www.boschsecuritysystems.com) and use the Divar storage calculator.

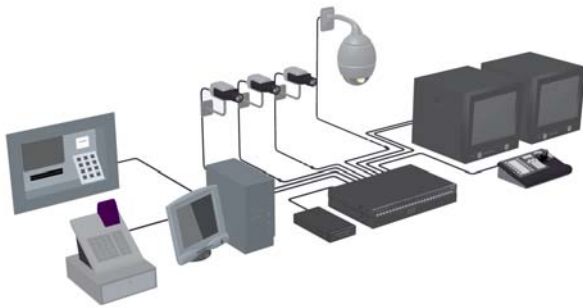
**Installation/Configuration Notes**



- 01 Type
- 02 Video inputs
- 03 E: Divar  
F: Divar with internal DVD writer  
H: Divar with Bilinx and internal DVD writer
- 04 108: One disk, 80 GB  
116: One disk, 160 GB  
216: Two disks, 160 GB each (320 GB total)  
230: Two disks, 300 GB each (600 GB total)
- 05 Revision

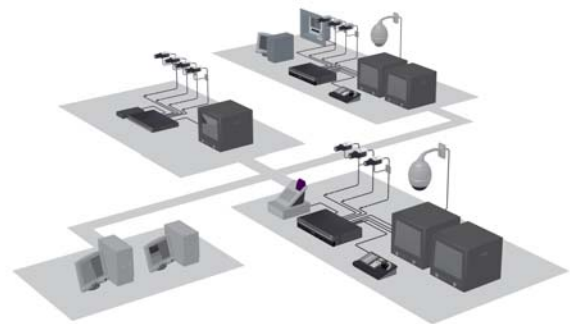


- 01 Camaras
- 02 Monitor
- 03 Spot monitor
- 04 Inputs
- 05 Outputs
- 06 Keyboard
- 07 Control
- 08 Ethernet
- 09 SCSI
- 10 Power



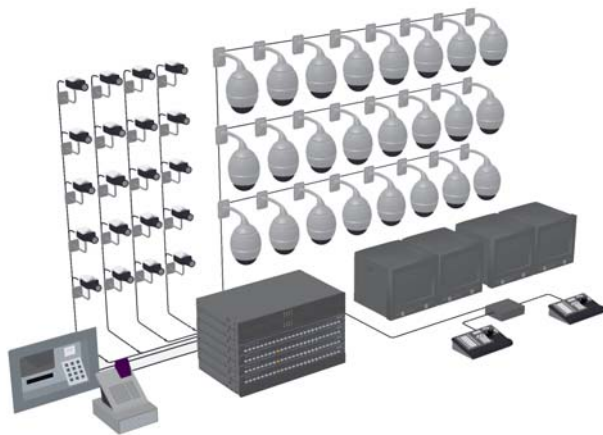
### COMPLETE STAND-ALONE SYSTEM

Extending the functionality of a single Divar for active observation. This Divar system uses a universal keyboard for controlling fixed and AutoDome or PTZ cameras. It has a main monitor plus spot monitor, alarm I/O (for external alarms and sensors), a storage array and a PC with Control Center software. A DVD writer is used for making archives. An ATM/POS bridge can be used to connect to an ATM or point-of-sale machine.



### MULTI-LOCATION WITH CENTRALIZED CONTROL

Using a wide-area network to link Divar systems in various locations. Each location has a local Divar system (from basic to complete). All locations are linked via a local- or wide-area network (LAN or WAN) to a PC with Control Center software for remote observation and system management. An ATM/POS bridge can be used to connect to an ATM or point-of-sale machine.



### MEDIUM LOCALIZED SYSTEM

Using the Bosch Video Manager to build up CCTV recording system. Up to 16 Divar units with storage arrays for longer archive are managed by Video Manager. There can be two monitor locations, each with its own keyboard and alarm monitor. The alarm I/O is linked to external alarms. An ATM/POS bridge can be used to connect to an ATM or point-of-sale machine.

Technical Specifications	
<b>Electrical</b>	
<b>Rated Voltage and Power</b>	
E Version	100-240 VAC; 0.7 - 0.3 A; 50/60 Hz
F and H Versions	100-240 VAC; 0.8 - 0.3 A; 50/60 Hz
<b>Video</b>	
Video Standard	PAL / NTSC auto-detect
Resolution	720 x 576 PAL - 720 x 484 NTSC
AGC	Automatic adjustment or manual adjustment for each video input
Digital Zoom	2 or 4 times
Compression	Wavelet
Inputs	Composite video 0.5-2 Vpp, 75 Ohm auto terminating
Outputs:	1 Vpp, 75 Ohm
BiPhase	Impedance 128 Ohm, max. overvoltage protection $\pm 40$ V, max. cable length 1.5km
<b>Alarm Handling</b>	
Inputs	16 Inputs configurable NO/NC, max. input 40 VDC
Outputs	4 Relay outputs, configurable NO/NC, max. rated 30 VAC-40 VDC-0.5A continuous -10 VA
<b>Control</b>	
RS232	Output signals according EIA/TIA-232-F, max. input voltage $\pm 25$ V
Keyboard input	Conform RS485, max. signal voltage $\pm 12$ V, power supply to keyboard 11 V-12.6 V at max. 400 mA
Keyboard output	Conform RS485, max. signal voltage $\pm 12$ V
<b>Connectors</b>	
Video inputs	6, 9 or 16 looping BNC, auto-terminating
Ethernet	RJ45S modular jack 8 pins shielded: 10/100 Base-T according IEEE802.3
Monitors	BNC (2), MON-A multi-screen, MON-B spot/alarm
Alarm Accessories	Screw terminal input
BiPhase	Screw terminal output
RS232	DB9 male
Keyboard input	RJ11 modular jack 6 pins
Keyboard output	RJ11 modular jack 6 pins
SCSI	HD 50 pins max. 7 (E versions / 6 (F and H versions) connected ultra SCSI devices, 20 MB/sec, terminated internally
<b>Storage</b>	
Internal	80 - 160 - 320 - 600 GB
	Expandable via SCSI-2 with external storage arrays type DVAD or DVAS to a maximum of 17TB
<b>File sizes</b>	
High Quality	40 KB
Medium Quality	24 KB

Electrical	
Standard Quality	16 KB
<b>Record Rate (IPS):</b>	
NTSC	60 total, configurable per camera: 30, 15, 10, 7.5, 6, 5, 4, 3, 2, 1, 1/2, 1/5, 1/10, 0
PAL	50 total, configurable per camera: 25, 12.5, 8, 6, 5, 4, 3, 2, 1, 1/2, 1/5, 1/10, 0
Recording resolution:	720 x 288 PAL - 720 x 242 NTSC
<b>Display Modes</b>	
Mon A	Full, full sequence, quad, quad sequence, multi-screen, alarm call-up (live and playback)
Mon B	Full, full sequence and alarm call-up
<b>Recording Modes</b>	Linear, continuous, continuous with conditional overwrite

Mechanical	
<b>Dimensions</b>	
E Version	442 x 315 x 45 mm (17.4 x 12.4 x 1.8 in.)
F and H Versions	442 x 315 x 66 mm (17.4 x 12.4 x 2.6 in.)
<b>Weight</b>	
E Version	Approx. 5.8 kg (12.8 lbs)
F and H Versions	Approx. 7.5 kg (16.5 lbs)
<b>Rack Mount Kit</b>	For mounting one unit in an EIA 19-inch rack.

Environmental	
<b>Temperature</b>	
- Operating Temperature	
E Version	+0°C to +45°C (+32°F to +113°F)
F and H Versions	+5°C to +40°C (+41°F to +104°F)
- Storage Temperature	
	-25°C to +70°C (-13°F to +158°F)
<b>Relative humidity</b>	
- Operating	
	<93% Non-condensing
- Storage	
	<95% Non-condensing
<b>Electromagnetic compatibility</b>	
<b>EMC requirements</b>	
- USA	FCC Part 15, Class B
- EU	EMC directive 89/336/EEC
Immunity	EN50130-4
Emission	EN55022 Class B
Mains Harmonics	EN61000-3-2
Voltage fluctuations	EN61000-3-3
<b>Safety</b>	
- USA	UL6500 2nd edition
- EU	EN60950: 2000
- Can.	CAN/CSA-E60065-00

Minimum PC System Requirements	
Control Center (CC) and Configuration Tool (CT)	
Operating system	Windows 98, Millennium, NT 4.0, 2000 or XP
Processor	450 MHz Pentium II for CC, 200 MHz Pentium with MMX for CT

Minimum PC System Requirements	
RAM memory	128 MB for CC, 32 MB for CT
Free disk space	50 MB for CC, 15 MB for CT
Video system	8 MB video memory, 800 x 600 with 16-bit color
Connection	10/100-BaseT network interface or free RS-232 port (CT only)

### Ordering Information

#### Hardware Accessories

DVAS0416	899380047831
Digital video array, raid 5, with 4 – 160 GB internal HDD, 120 / 230 VAC, 50 / 60 Hz	
DVAS0816	899380047841
Digital video array, raid 5, 8 – 160 GB internal HDD, 120 / 230 VAC, 50 / 60 Hz	
DVAS1416	899380047851
Digital video array, raid 5, 14 – 160 GB internal HDD, 120 / 230 VAC, 50 / 60 Hz	
DVAS0430	899380054291
Digital video array, raid 5, with 4 – 300 GB HDD, 120 / 240 VAC, 50 / 60 Hz	
DVAS0830	899380054301
Digital video array, raid 5, with 8 – 300 GB HDD, 120 / 240 VAC, 50 / 60 Hz	
DVAS1430	899380054311
Digital video array, raid 5, with 14 – 300 GB HDD, 120 / 240 VAC, 50 / 60 Hz	
KBD-Digital Keyboard	899380048996
IntuiKey Digital Keyboard for use with Divar Digital Video Recorders and System4 Multiplexers	
DVAD0216	899380048941
Digital video array, low profile, 2 – 160 GB internal HDD	
DVAD0416	899380048951
Digital video array, low profile, 4 – 160 GB internal HDD, 120 / 230 VAC, 50 / 60 Hz	
ACCVHD50	899380048821
Dvas & dvad series 1m SCSI cable, DVR to disk array	
DVRXEDVD1	862278031751
Divar-2 External CD/DVD Writer 100 - 240 VAC; 0.3 - 0.15 A; 50 / 60 Hz	
DVRXEAP01	862278031761
ATM/POS bridge DIVAR-2	
LTC 8557/50	896085575001
Keyboard Extension Kit – up to 1.5 km (5000 ft); includes power supply for 230 VAC, 50 Hz	
LTC 8557/60	896085576001
Keyboard Extension Kit – up to 1.5 km (5000 ft); includes power supply for 120 VAC, 60 Hz	
LTC 2605/91	896026059101
System4 Video Manager	

### Ordering Information

LTC 2604/50	896026045001
Keyboard Port expander Unit 230V, 50Hz	
<b>Software Options</b>	
DVRSEUG12	899380056231
Divar-1 upgrade license	
DVRSEAP01	899380056541
ATM/POS license DIVAR-2	

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