

# Digital Video Recorder 440/480 Series

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Advantage Line

The Bosch Video Recorder 440/480 Series is a 4/8 channel digital recorder that uses the latest H.264 compression technology. With the supplied Control Center software and built-in web server, the 440/480 Series is a fully integrated, stand-alone video solution that's ready to go, straight out of the box.

Available in 4-channel and 8-channel versions, the 440/480 Series features a highly reliable embedded design that minimizes maintenance and operational costs.

## Features

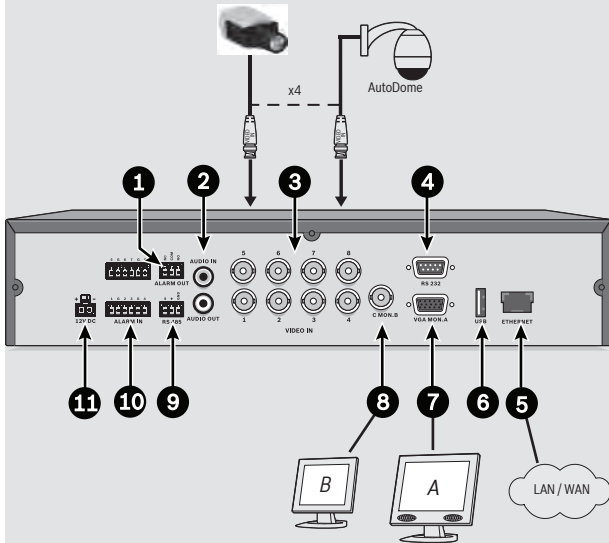
- ▶ 4/8-Channel real-time recording
- ▶ Flexible viewing with two monitor outputs
- ▶ Remote viewing, playback, control, and configuration
- ▶ Easy Pan/Tilt/Zoom camera control
- ▶ DVR viewer iPhone App

### Technical specifications

| Electrical  |  |
|---|--|
| Rated Voltage and Power   |  |
| External power adapter AC input   | 110–240 VAC; 50/60 Hz; 1.8 A   |
| External power adapter DC output  | 12 VDC; 3 A  |
| DVR Power input   | 12 VDC; 3 A  |
| Video   |  |
| Video Standard  | SVGA<br>PAL / NTSC auto-detect   |
| Live Resolution   | SVGA: 800x600, 1024x768 or 1280x1024<br>PAL: 720x576, NTSC: 720x484  |
| Digital Zoom  | 2 times  |
| AGC   | Automatic gain adjustment for each video input   |
| Compression   | H.264  |
| Inputs  | Composite video 1 Vpp, 75 ohm, automatic termination   |
| Outputs   | Monitor A: VGA RGB<br>Monitor B: 1 Vpp, 75 ohm, sync. 0.3 V ±10%   |
| Audio   |  |
| Input   | Mono RCA, 1.0 Vpp  |
| Output  | Mono RCA, 1.0 Vpp  |
| Compression   | ADPCM  |
| Sample rate   | 16 kHz per channel   |
| Bit rate  | 8-bit  |
| Alarm Handling  |  |
| Inputs  | 4/8 Inputs configurable NO/NC, max input voltage 15 VDC  |
| Outputs   | 1 Relay output, configurable NO/NC, max. rated 30 VAC, 30 VDC 0.5 A continuous   |
| Control   |  |
| RS232   | Output signals according to EIA/TIA-232-F, max. input voltage ±25 V  |
| RS232 Support   | Bosch domes via RS232/Bi-phase converter   |
| RS485   | Output signals according to RS485, max. signal voltage -8 to +12 V   |
| RS485 Support   | Bosch domes, and Pelco P and D   |
| Connectors  |  |
| Video Inputs  | 4/8 BNC  |
| Monitor   | 1 VGA d-SUB, 1 BNC   |
| Alarm connectors  | Screw terminal inputs, cable diameter AWG26-16 (0.13-1.5 mm)   |
| Audio Inputs  | 1 RCA (CINCH)  |
| Audio Output  | 1 RCA (CINCH)  |
| Ethernet  | RJ45, 10/100 BaseT according to IEEE802.3  |
| RS232   | DB9 Male   |
| RS485   | Screw terminal output, cable diameter AWG28-16 (0.08-1.5 mm)   |
| USB   | Type A Connector<br>USB 2.0 on front and rear for mouse or USB memory device   |
| Storage   |  |
| Hard Disk   | Supports 1 SATA hard drive up to 1TB.<br>(Third party hard disks are supported from firmware version 2.0.6 onwards. A list of tested disks is available in the instruction manual.)* |
| *Bosch cannot be held liable for any loss or damages or system malfunction resulting from the use of non-Bosch drives in DVR recorders. |  |
| Video recording   |  |
| Record Rate (IPS)   |  |
| NTSC  | Max. 30 IPS per channel, configurable: 30, 15, 7.5, 5, 3, 1  |

| PAL                                  | Max. 25 IPS per channel, configurable: 25, 12.5, 6.25, 5, 2.5, 1      |
|--------------------------------------|---|
| Recording Quality                    | Best, High, Normal, Low, Lowest                                       |
| Average Recording Capacity           |   |
| CIF, Normal, 25/30 IPS               | PAL: 550 Hours, NTSC: 685 Hours                                       |
| CIF, Normal, 6.25/7.5 IPS            | PAL: 1400 Hours, NTSC: 1700 Hours                                     |
| 2CIF, Normal, 12.5/15 IPS            | PAL: 460 Hours, NTSC: 575 Hours                                       |
| 4CIF, Normal, 6.25/7.5 IPS           | PAL: 370 Hours, NTSC: 460 Hours                                       |
| Maximum recording rates              |   |
| Local Stream 8 channels              |   |
| 4CIF                                 | PAL: 6.25 IPS, NTSC: 7.5 IPS  |
| 2CIF                                 | PAL: 12.5 IPS, NTSC: 15 IPS   |
| CIF                                  | PAL: 25 IPS, NTSC: 30 IPS   |
| Local Stream 4 channels              |   |
| 4CIF                                 | PAL: 12.5 IPS, NTSC: 15 IPS   |
| 2CIF                                 | PAL: 25 IPS, NTSC: 30 IPS   |
| CIF                                  | PAL: 25 IPS, NTSC: 30 IPS   |
| Local Stream 2 channels              |   |
| 4CIF                                 | PAL: 25 IPS, NTSC: 30 IPS   |
| 2CIF                                 | PAL: 25 IPS, NTSC: 30 IPS   |
| CIF                                  | PAL: 25 IPS, NTSC: 30 IPS   |
| Local Stream 1 channel               |   |
| 4CIF                                 | PAL: 25 IPS, NTSC: 30 IPS   |
| 2CIF                                 | PAL: 25 IPS, NTSC: 30 IPS   |
| CIF                                  | PAL: 25 IPS, NTSC: 30 IPS   |
| Remote (network) Stream 4 channels   |   |
| CIF                                  | PAL: 12.5 IPS, NTSC: 15 IPS   |
| Remote (network) Stream 2 channels   |   |
| CIF                                  | PAL: 25 IPS, NTSC: 30 IPS   |
| Display Modes                        |   |
| Monitor A                            | Full, multiscreen, sequence (live and playback), alarm call-up (live) |
| Monitor B                            | Full, multiscreen, sequence, alarm call-up (live)                     |
| Recording Modes                      |   |
| Normal                               | Continuous recording (with or without overwriting)                    |
| Event                                | Input and motion recording (with or without overwriting)              |
| Mechanical                           |   |
| Dimensions (WxDxH) excluding cabling | 225 x 325 x 60 mm<br>(8.86 x 12.8 x 2.4 in)                           |
| Weight (DVR440)                      | 2.9 kg (6.39 lb) approx. (DVR440)<br>3 kg (6.61 lb) approx. (DVR480)  |
| Environmental                        |   |
| Operating temperature                | +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   |
| Certifications and approvals         |   |
| Region                               | Certification   |
| Europe                               | CE  |
| Standards                            |   |
|                                      | CC Part 15, Subpart B, Class B  |
|                                      | EMC Directive 2004/108/EC   |
|                                      | Immunity: EN50130-4   |
|                                      | Emission: EN55022 Class B   |
|                                      | Harmonics: EN61000-3-2  |

|                                   |
|-----------------------------------|
| Voltage fluctuations: EN61000-3-3 |
| UL60950-1                         |
| CE, EN60950-1                     |
| CAN/CSA-C22.2 no. 60950-1         |



Connections on rear of DVR 480 (8 channels)

- |                           |                                     |
|---------------------------|-------------------------------------|
| 1. Alarm output           | 7. Monitor A VGA output             |
| 2. Audio input and output | 8. Monitor B output                 |
| 3. Camera inputs          | 9. RS485 connector for dome control |
| 4. RS232 connector        | 10. Alarm inputs                    |
| 5. RJ45 network connector | 11. 12 VDC power connector          |
| 6. USB connector          |                                     |

**Recommended PC requirements for Web support**

|                   |  |
|-------------------|--|
| Operating system  | Windows XP, Windows Vista or Windows 7 |
| Web browser       | Internet Explorer 7, 8 or 9            |
| Processor         | Intel Core Duo 2.0 GHz or comparable   |
| RAM memory        | 2048 MB                                |
| Free disk space   | 10 MB                                  |
| Graphics card     | NVIDIA GeForce 8600 or better          |
| Video memory      | 256 MB                                 |
| Network interface | 10/100-BaseT                           |

**Ordering information**

|                                |                |
|--------------------------------|----------------|
| 440 Series DVR, 4ch, base unit | DVR-440-04A000 |
| 480 Series DVR, 8ch, base unit | DVR-480-08A000 |
| 440 Series DVR, 4ch, 500 GB    | DVR-440-04A050 |
| 480 Series DVR, 8ch, 500 GB    | DVR-480-08A050 |
| 480 Series DVR, 8ch, 1 TB      | DVR-480-08A100 |

**Accessories**

|                                   |             |
|-----------------------------------|-------------|
| DVR-XS050-A Storage Expansion Kit | DVR-XS050-A |
| DVR-XS100-A Storage Expansion Kit | DVR-XS100-A |

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