

# MDSC-2324

Full HD 24-inch surgical display



- For the best hand-eye coordination
- Allows for easy cleaning and disinfection
- Works with Nexxis for video-over-IP integration

Barco's MDSC-2324 is a 24-inch near-patient surgical display with LED backlight, featuring full HD resolution and a wide color gamut. Purpose-built for the operating room, the MDSC-2324 offers an easy-clean design, smart mechanics and the most detailed images in the procedure room today.

### Color-calibrated, artifact-free images

Thanks to its high brightness, high contrast and high resolution, the MDSC-2324 presents surgeons with accurate, realistic images and excellent depth perception. It also offers the fastest, lag-free transmission of surgical images and the highest image quality available today.

Our next-generation motion adaptive de-interlacing and noise reduction algorithms, using full 10-bit image processing, are your guarantee for detailed, sharp, and noise-free pictures, so you can detect the most subtle changes in tissue color.

### Multi-source, multi-display imaging over IP

With its broad input connectivity, the MDSC-2324 offers the highest flexibility for multi-modality imaging (PiP & PaP), enabling reproduction of images from multiple sources and to multiple displays in the integrated operating room.

The 24-inch display is one of Barco's network-enabled surgical displays and offers integrated functionality (optional) for use with Nexxis digital OR, ensuring smooth distribution of uncompressed video and data over the IP network without delay.

### Designed for use in the operating room

Barco's MDSC-2324 allows easy cleaning and disinfection thanks to its smooth surface, splash-proof housing, and front screen protection (IP45). The fan-less design avoids the spread of contaminants.



The display comes with a smart cable management system that hides the cables for a clutter-free set-up. It is light and compact, allowing easy (dual-monitor) mounting on surgical booms and spring arms.

Barco's MDSC-2324 features:

- **24" wide-screen LCD**
- **Full HD resolution**
- **Wide viewing angle**
- **High-brightness LED backlight**
- **Advanced, full 10-bit, image processing algorithms for artifact-free video reproduction**
- **Widest range of SD and HD input signals, including 3G-SDI and DisplayPort**
- **Calibrated for perfect color and grayscale reproduction (ITU 709 and DICOM standards)**
- **Easy cleaning thanks to full size protection screen and smooth design without gaps**
- **Easy cable management allowing hiding of cables in a flexible back cover**
- **Lightweight for easy mounting on spring arms**

**PRODUCT SPECIFICATIONS****MDSC-2324**

Screen technology	TFT AM LCD / LED backlight
Active screen size (diagonal)	611.3 mm (24")
Active screen size (H x V)	518.4 x 324 mm (20.4" x 12.7")
Aspect ratio	16:10
Resolution	1920 x 1200
Pixel pitch	0.270 mm
Color imaging	Yes
Color support	1073 million (10-bit)
Color gamut	Wide gamut (Adobe RGB 1998)
Viewing angle	178° Hor / 178° Ver
Maximum luminance	400 cd/m <sup>2</sup> (typical)
Contrast ratio	1500:1 (typical)
Dot clock	(max) 165 Mhz
Gamma curve	Native, 1.8, 2.0, 2.2, 2.4, DICOM
Housing color	White RAL 9003
Video inputs	<p>Video input signals:</p> <ul style="list-style-type: none"><li>-DVI-I Single-Link (Digital &amp; Analog – HDMI video support with HDCP)</li><li>-Component Video RGBS / YPbPr (4xBNC)</li><li>-S-video (4-pin Mini DIN)</li><li>-Composite video (1xBNC)</li><li>-3G-SDI (1xBNC)</li><li>-DisplayPort (VESA std 1.1a)</li><li>-Optional: integrated BARCO Nexxis network adapter</li></ul> <p>Video input formats:</p> <ul style="list-style-type: none"><li>-VGA &amp; DVI: Up to 1920x1200 at 60Hz (reduced blanking)</li><li>Maximum pixel clock: 165MHz</li><li>Maximum Hor freq: 90kHz</li><li>Maximum Ver freq: 75Hz</li><li>-Standard PAL and NTSC for S-Video, Composite and Component</li><li>-Component YPbPr/ RGBS: HDTV -up to 1080i &amp; 1080p</li><li>-SDI Format Supported: 625/25 PAL, 525/29.97 NTSC, 1080i50, 1080i59.94, 1080i60, 720p50, 720p59.94, 720p60, 1080p50, 1080p59.94, 1080p60</li><li>-SDI Compliance: SMPTE 425M (Level A), SMPTE 424M, SMPTE 292M, SMPTE 259M-C, SMPTE 296M, ITU-R BT.656, ITU-R BT.601</li><li>-Displayport 1.1a: up to 1920 x 1200 60Hz</li></ul>
Video outputs	<p>DVI-D</p> <p>S-video (4-pin Mini DIN)</p> <p>Composite video (1xBNC)</p> <p>3G-SDI (1xBNC)</p>
Remote control	RS-232 (D-sub 9-pin)
Power requirements (nominal)	<p>Power source for external power supply: 100 – 250 VAC / 47-63 Hz auto-switch</p> <p>Power source for display power input: +24 VDC / 2.3A LED version, 3.2A MNA version</p> <p>Power supply for external module: +5VDC <math>\pm</math>10% @500mA (max) through the DVI connectors DVI-in &amp; DVI-out (on pin 14 or pin 16 -OSD programmable)</p>
Power management	<p>DVI-DMPM states supported</p> <p>Power On state</p> <p>Active-Off state</p>
Power consumption	<p>55W max (LED version)</p> <p>75W max (MNA version)</p>
OSD languages	English, French, German, Spanish, Italian
Dimensions w/o stand (W x H x D)	595 x 414 x 84 mm (23,4" x 16,3" x 3,3")

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Net weight w/o stand	7.9 kg / 17.4 lbs (MDSC-2224 LED) 8.3 kg / 18.3 lbs (MDSC-2224 MNA)
Net weight packaged w/o stand	12.0 Kg (26.5 lbs) LED version
Mounting standard	100 x 100 mm VESA
Screen protection	IP21 / Front face: IP45 Double coated, anti-reflective PMMA / White RAL 9003
Recommended modalities	Endoscopy, laparoscopy, X-ray, CT, MR, US
Regulation Compliance	CE (MDD) Class I, essential requirements of MDD 93/42/EEC, version 2007 (in effect as of March 2010), EN 60601-1 (Ed.3) +A1: 2013 +A12: 2014, IEC 60601-1 (Ed. 3) +A1: 2012, IEC 60601-1-6 (Ed. 3); Am1, IEC 62366(Ed.1); Am1, ANSI/AAMI ES 60601-1 (Ed. 3) +A1: 2012; C1: 2009/(R) 2012 and A2: 2010/(R)2012, CSA CAN/CSA-C22.2 NO. 60601-1:14, IEC/EN 60601-1-2: 2014, EN 55011/CISPR11 (MDSC-2324 MNA: Class A, MDSC-2324 DDI: Class B), FCC CFR 47 Part 15 Subpart B (MDSC-2324 MNA: Class A, MDSC-2324 DDI: Class B), RoHS compliant, IP21 (IP45 front side only)
Temperature	Operating: 0° -40° C / Storage: -20° -60° C
Humidity	Operating: 20% -85% R.H. / Storage: 10% -85% R.H.
Keyboard/mouse	Touch-sensitive, 7-key, backlit, bottom-right
Supplied accessories	User Manual, DVI Dual-Link cable 3.0m, Mains cables ( EU (CEBEC/KEMA) & US (Hospital grade UL)), External power supply
Optional accessories	Barco Surgical LCD Display Desk Stand, Extension Cable 10m & 30m
Warranty	3 years

Last updated: 02 May 2018

Technical specifications are subject to change without prior notice. Please check [www.barco.com](http://www.barco.com) for the latest information.