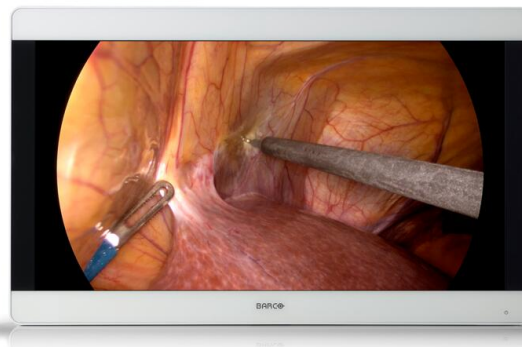


# MDSC-8231

4K UHD surgical display



- Perfect match for 4K endoscopy cameras
- Shows images with astonishing detail
- Medical-grade and smart design
- BT.2020 compatible
- 12G-SDI and Quad-link 3G-SDI signals accepted

Notice:

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Barco's MDSC-8231 is a 31-inch, near-patient, high-brightness surgical display that is purpose-built for 4K imaging in the digital operating room and interventional radiology control room. It offers an easy-to-clean design, light and smart mechanics, and the most life-like images today.

## Ease of mind

Flawless 4K imaging

The perfect match for 4K endoscopy camera systems, the MDSC-8231 presents endoscopic images with a resolution four times that of HD. This provides surgeons with more detail-rich, color-correct images for a real-life presentation of the patient's anatomy and excellent depth perception. Images are presented with unrivaled color accuracy (thanks to the wide color gamut and advanced color calibration), without artifacts, and with near-zero latency for optimal hand-eye coordination. The 31-inch display size makes the MDSC-8231 ideal for use in the



interventional radiology control room as well.

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

With its broad input connectivity and wide set of image control features, the MDSC-8231 offers flexible multi-modality imaging in new integrated operating rooms. The 31-inch display also offers integrated functionality (optional) for use with Barco's Nexxis for video-over-IP solutions.

#### Safety, stability and redundancy

Thanks to its high-bright LED backlight with light output stabilization, the display ensures a long lifetime and image consistency. The unique, automated failover feature guarantees a backup signal at all times to ensure safe surgery.

#### Ease of installation

The MDSC-8231 comes with a smart cable management system that hides the cables for a clutter-free set-up. Its lightweight design allows easy mounting on surgical booms and spring arms.

#### Ease of use

Barco's MDSC-8231 allows for easy cleaning and disinfection thanks to its smooth surface and splash-proof housing (front protection level IP45). It comes with a highly durable, scratch-resistant front glass featuring excellent optical performance.

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**PRODUCT SPECIFICATIONS****MDSC-8231**

Screen technology	TFT AM LCD / IPS-PRO technology / LED backlight
Active screen size (diagonal)	789 mm (31.1")
Active screen size (H x V)	698 x 368 mm
Aspect ratio	17:9
Resolution	4K-2K (4096 x 2160)
Pixel pitch	0.1704 mm
Color support	1073 million (10-bit)
Color gamut	Native: 96% DCI-P3 / 105% Adobe
Color calibration	ITU-709, DCI-P3, BT.2020
Viewing angle	178° Hor / 178° Ver
Maximum luminance	Max 550 cd/m <sup>2</sup> (typ.) @6500K: 450 cd/m <sup>2</sup> stabilized (typ.)
Contrast ratio	1400:1 (typ.)
Response time	T on + T off (=rise + fall): 20 ms (typ.)
White point	Calibrated: 5600K, 6500K, 7600K, 9300K
Gamma curve	Native, 1.8, Video 2.2, 2.4, DICOM
Front protection screen	Scratch-resistant 2-side AR alkali-aluminosilicate glass
Keyboard	Capacitive 7-key touch keyboard
Video inputs	MDSC-8231 LED 4K-UHD input selectable among: 1x DP 1.1 up to 4096 x 2160 @25Hz/30Hz 2x DP 1.1 up to 2048 x 2160 @50Hz/60Hz 1x DP 1.2 MST up to 4096 x 2160 @50Hz/60Hz 2x HDMI 2.0 up to 4096 x 2160 @50Hz/60Hz  FHD input (upscaled to UHD): 1x DVI 1x 3G-SDI  MDSC-8231 12G 4K-UHD input selectable among: Quad-link 3G-SDI up to 4096 x 2160 @50Hz/60Hz 12G-SDI up to 4096 x 2160 @50Hz/60Hz 1x DP 1.1 up to 4096 x 2160 @25Hz/30Hz 2x DP 1.1 up to 2048 x 2160 @50Hz/60Hz 1x DP 1.2 MST up to 4096 x 2160 @50Hz/60Hz 2x HDMI 2.0 up to 4096 x 2160 @50Hz/60Hz FHD input (upscaled to UHD): 1x DVI  MDSC-8231 MNA 4K-UHD input selectable among: 1x DP 1.1 up to 4096 x 2160 @25Hz/30Hz 2x DP 1.1 up to 2048 x 2160 @50Hz/60Hz 1x DP 1.2 MST up to 4096 x 2160 @50Hz/60Hz 2x Fiber Optic SFP+ for 4K-UHD Nexxis link FHD input (upscaled to 4K) 1x DVI 1x 3G-SDI

**PRODUCT SPECIFICATIONS****MDSC-8231**

<b>Video outputs</b>	MDSC-8231 LED & MNA 1x 3G-SDI (input loop through) 1x DVI (screen clone downscaled to FHD) MDSC-8231 12G 2x 12G-SDI (input loop through) 1x DVI (screen clone downscaled to FHD)
<b>Multi-image support</b>	Picture-in Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out, FHD input upscaled to UHD, Quadview (through Nexxis)
<b>Remote control</b>	MDSC-8231 LED, MDSC-8231 12G: Usb Type B port for FW download & control protocol / remote control through DDC on DVI & DP MDSC-8231 MNA: FW download through network connection
<b>Features</b>	Video processing optimized for low latency and noise reduction, Picture-in-Picture, Picture-by-Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out, FHD input upscaled to UHD, Legacy signals accepted, DC Power output, cable cover.
<b>Power consumption</b>	MDSC-8231 LED: 165W (Max) / 24V ± 10% MDSC-8231 12G, MDSC-8231 MNA: 190W (Max) / 24V ± 10% Low power mode MDSC-8255 LED: 18W Typ MDSC-8255 12G: 33W Typ MDSC-8255 MNA: 52W Typ Power-off: ~ 1
<b>External power supply</b>	AC input: 100 – 240 VAC / 47-63 Hz auto-switch DC output: +24 VDC / 10 A
<b>DC power output</b>	DC connector: +5V / 2A Available also on DVI, DP and USB ports
<b>Dimensions w/o stand (W x H x D)</b>	777 x 472 x 93 mm / 30.6 x 18.6 x 3.6 in
<b>Net weight w/o stand</b>	12.1 Kg / 26.6 lbs (MDSC-8231 LED, MDSC-8231 12G) 12.7 Kg / 28.0 lbs (MDSC-8231 MNA)
<b>Net weight packaged</b>	17 Kg / 37.5 lbs (MDSC-8231 LED, MDSC-8231 12G) 17.5 Kg / 38.6 lbs (MDSC-8231 MNA)
<b>Mounting standard</b>	100x100 & 200x100 mm VESA
<b>Temperature</b>	Operating: 0° + 35° C Storage: -20° + 60° C
<b>Humidity</b>	Operating: 10% + 90% R.H. Storage: 5% + 90% R.H.
<b>Regulation Compliance</b>	<ul style="list-style-type: none"><li>• ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10 + A1:2014)</li><li>• CAN/CSA-C22.2 No. 60601-1 (2014)</li><li>• IEC 60601-1:2005 (Third Edition) + CORR. 1:2006 + CORR. 2:2007 + A1:2012</li><li>• EN 60601-1: 2006 + CORR:2010 + A1:2013 + A12:2014</li><li>• Electromagnetic Compatibility: EMC Medical EMC Standards: IEC 60601-1-2 (2014), EN 60601-1-2 (2015) EN55011 /CISPR 11, FCC CFR47 Part 15 Subpart B (Class B)</li><li>• GB17625.1-2012; GB4943.1-2011; GB/T9254-2008</li><li>• Approvals/Marking: CE, c-UL-us, DEMKO, CCC, INMETRO, EAC</li></ul>
<b>Certifications</b>	IP20 (IP45 front side only)
<b>Warranty</b>	3 years
<b>Green compliance</b>	ROHS-3, REACH, WEEE

**Last updated: 21 Nov 2022**Technical specifications are subject to change without prior notice. Please check [www.barco.com](http://www.barco.com) for the latest information.