MDSC-8231

4K UHD surgical display

12G READY

4K UHD

BRIGHT

LED BACKLIGHT

WIDE ANGLE

WIDE GAMUT

GLASS COVER

3Y WARRANTY

APPROVED

30 30 BIT COLOR

BLOS

DISPLAYPORT

DICOM

CLEANABLE

31" SCREEN
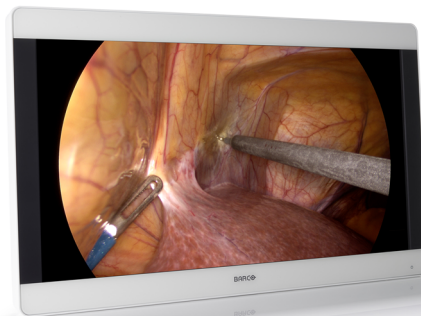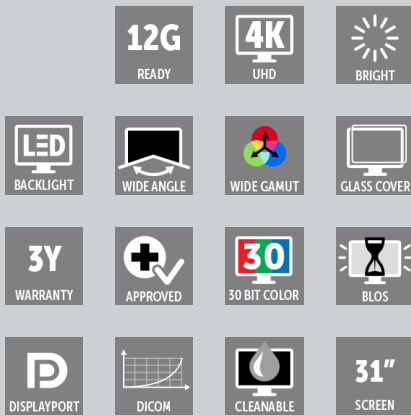
- **Perfect match for 4K endoscopy cameras**

- **Shows images with astonishing detail**

- **Medical-grade and smart design**

- **BT.2020 compatible**

- **12G-SDI and Quad-link 3G-SDI signals accepted**

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

BARCO

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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. The fanless design prevents the spread of contaminants.

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/m² (typ.) @6500K: 450 cd/m2 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
Video outputs	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)
Multi-image support	Picture-in Picture, Image Mirror and Rotation, Failover mode, Screen clone on DVI out, FHD input upscaled to UHD, Quadview (through Nexxis)
Remote control	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
Features	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.
Power consumption	MDSC-8231 LED: 165W (Max) / 24V $\pm$ 10% MDSC-8231 12G, MDSC-8231 MNA: 190W (Max) / 24V $\pm$ 10% Low power mode MDSC-8255 LED: 18W Typ MDSC-8255 12G: 33W Typ MDSC-8255 MNA: 52W Typ Power-off: ~ 1
External power supply	AC input: 100 – 240 VAC / 47-63 Hz auto-switch DC output: +24 VDC / 10 A
DC power output	DC connector: +5V / 2A Available also on DVI, DP and USB ports
Dimensions w/o stand (W x H x D)	777 x 472 x 93 mm / 30.6 x 18.6 x 3.6 in
Net weight w/o stand	12.1 Kg / 26.6 lbs (MDSC-8231 LED, MDSC-8231 12G) 12.7 Kg / 28.0 lbs (MDSC-8231 MNA)
Net weight packaged	17 Kg / 37.5 lbs (MDSC-8231 LED, MDSC-8231 12G) 17.5 Kg / 38.6 lbs (MDSC-8231 MNA)
Mounting standard	100x100 & 200x100 mm VESA
Temperature	Operating: 0° ÷ 35° C Storage: -20° ÷ 60° C
Humidity	Operating: 10% ÷ 90% R.H. Storage: 5% ÷ 90% R.H.
Regulation Compliance	• ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10 + A1:2014 • CAN/CSA-C22.2 No. 60601-1 (2014) • IEC 60601-1:2005 (Third Edition) + CORR. 1:2006 + CORR. 2:2007 + A1:2012 • EN 60601-1: 2006 + CORR:2010 + A1:2013 + A12:2014 • 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) • GB17625.1-2012; GB4943.1-2011; GB/T9254-2008 • Approvals/Marking: CE, c-UL-us, DEMKO, CCC, INMETRO, EAC
Certifications	IP20 (IP45 front side only)
Warranty	3 years
Green compliance	ROHS-3, REACH, WEEE

Last updated: 16 Apr 2020

Technical specifications are subject to change without prior notice. Please check www.barco.com for the latest information.

ENABLING BRIGHT OUTCOMES

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