

# E192HSA

## 19" surgical color LCD display



### **Pixel perfect precision**

This surgical display with LED backlight technology is the perfect match for endoscopy cameras. It combines artifact-free images with calibrated, consistent colors for surgical precision. Thanks to its high brightness, high contrast ratio and wide viewing angle, surgeons can see precise endoscopic images from any angle in a high-bright environment.

### **Major quality in a compact size**

The E192HSA has been specifically designed for mounting on endoscopy trolleys. Lightweight, compact and extremely simple to install, it meets all of the requirements of the small integrated operating room. The display features compatibility with endoscopic cameras, fluoroscopes, ultrasound echography, mobile x-ray systems, and other medical imaging systems.

### **Safety guaranteed**

This 19" surgical display complies with all of the latest safety and medical standards. Its fan-less and fully cleanable design, including a splash-proof front, allows for complete disinfection and makes the E192HSA completely safe for use near patients.

Product specifications	E192HSA
<b>Screen technology</b>	TFT AM LCD White LED backlight
<b>Active screen size (diagonal)</b>	19.0" (481.84 mm)
<b>Active screen size (H x V)</b>	376 x 302 mm (14.8" x 11.89")
<b>Aspect ratio</b>	5:4
<b>Resolution</b>	1MP (1280 x 1024)
<b>Pixel pitch</b>	0.294mm
<b>Color imaging</b>	Yes
<b>Color support</b>	16.7 million (8-bit)
<b>Viewing angle</b>	178°
<b>Luminance</b>	Default @6500K: 250 cd/m <sup>2</sup> Maximum: 300 cd/m <sup>2</sup> (typical)
<b>Contrast ratio</b>	900:1 (typical)
<b>LCD transition time</b>	Average total 18ms typical (Rise time Tr + Decay time Tf; Tr = Black to White , Tf = White to Black)
<b>White point</b>	Native: 6400K Calibrated: 5600K, 6500K, 7600K, 9300K
<b>Dot clock</b>	165 MHz (maximum)
<b>Gamma</b>	Native, CRT, Xray
<b>Screen protection</b>	Dual side anti-reflective Acrylic
<b>Keyboard</b>	Mechanical membrane 7 buttons
<b>Video input signals</b>	<ul style="list-style-type: none"> <li>■ DVI-D Single Link (Digital – HDMI video support with HDCP)</li> <li>■ VGA</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> </ul>
<b>Video output signals</b>	<ul style="list-style-type: none"> <li>■ DVI-D (output selectable from DVI-1)</li> <li>■ S-video (4-pin Mini DIN)</li> <li>■ Composite video (1xBNC)</li> <li>■ 3G-SDI (1xBNC)</li> </ul>
<b>Video formats</b>	<p>VGA &amp; DVI : Up to 1920x1200 at 60Hz (reduced blanking)</p> <ul style="list-style-type: none"> <li>■ Maximum Hor freq: 90kHz</li> <li>■ Maximum pixel clock: 165MHz</li> <li>■ Maximum Ver freq: 75Hz</li> </ul> <p>Standard PAL and NTSC for S-Video, Composite and Component</p> <p>Component YPbPr/ RGBS: HDTV - up to 1080i &amp; 1080p</p> <p>SDI Format Supported: 625/25 PAL, 525/29.97 NTSC, 1080i50, 1080i59.94, 1080i60, 720p50, 720p59.94, 720p60, 1080p50, 1080p59.94, 1080p60</p> <p>SDI Compliance: SMPTE 425M (Level A), SMPTE 424M, SMPTE 292M, SMPTE 259M-C, SMPTE 296M, ITU-R BT.656, ITU-R BT.601</p> <p>RS-232 (D-sub 9-pin)</p>
<b>Remote control</b>	
<b>Power requirements (nominal)</b>	External power supply: 100-240VAC, 50/60Hz, medical gradeDisplay power input: +24 VDC ±10% / 1.3 A
<b>Power consumption (nominal)</b>	35W typical
<b>OSD languages</b>	English, French, German, Spanish, Italian
<b>Dimensions display (W x H x D)</b>	425 x 375 x 96.8 mm (16.7" x 18.6" x 3.6")
<b>Dimensions packaged (W x H x D)</b>	593 x 483 x 192 mm (23.3" x 19.0" x 7.6")
<b>Net weight display</b>	5.8 kg (12.6 lbs)
<b>Net weight packaged</b>	8.87 kg (19.9 lbs)

**Product specifications****E192HSA**

<b>Mounting standard</b>	VESA (100 x 100 mm)
<b>Recommended modalities</b>	Endoscopy, Laparoscopy, PACS, PM, US, CT, MR
<b>Certifications</b>	MDD 93/42/EEC (Class1), Amended by 2007/47/ECEN 60601-1 3rd Edition (2006) - Medical Electrical Equipment / General Requirements for basic Safety and essential performanceIEC 60601-1 3rd Edition (2005) - Medical Electrical Equipment / General Requirements for basic Safety and essential performanceANSI/AAMI ES60601-1 3rd Edition (2005) - Medical Electrical Equipment / General Requirements for basic SafetyCAN/CSA-C22.2 No. 60601-1 (2008) - Medical Electrical Equipment - Part 1: General Requirements for basic Safety and Essential PerformanceApprovals/Marking: CE c-UL-us, DEMKO, PSE, CCC.Note PSE is available on PSUElectromagnetic Compatibility: EMC Medical EMC Standards: IEC/EN 60601-1-2 (2007), EN55011/CISPR 11 ( Class B), FCC CFR47 part 15 & 18RoHS-2, REACH, WEEE compliantIP21 (IPx5 monitor front side only)
<b>Supplied accessories</b>	User manualMains cables (European, US, Chinese)External power supplyInterface cable DVI 3m
<b>Optional accessories</b>	Display pedestal (P/N: K9302060A)
<b>Operating temperature</b>	0 ÷ +40°C
<b>Storage temperature</b>	-20 ÷ +60°C
<b>Operating humidity</b>	10 ÷ 90% (non-condensing)
<b>Storage humidity</b>	10 ÷ 90% (non-condensing)
<b>Operating altitude</b>	3000m max.
<b>Storage altitude</b>	12000m max.

Last updated: 12 Nov 2015  
Technical specifications are subject to change without prior notice.  
Please check [www.barco.com](http://www.barco.com) for the latest information.

**BARCO**

Visibly yours