



19" LCD Color Monitor
Full range of Analog,
Digital & Video input
HD video accepted
Medical Grade

19"
SXGA

FIMI



EI90H

High Quality HD monitor for Endoscopy & Operating rooms

The EI90H is part of an LCD-display product line specifically designed for medical applications. Its wide number of features makes this product the ideal solution for Endoscopy and Operating Rooms.

With its sophisticated signal processing the product offers detailed, sharp, accurate, noise-free pictures, perfect when coupled with state-of-the-art Endoscopy equipment.

Features and Benefits

- Full range of analogue and digital video input, including 1080p DVI and 1080i SDI HD format
- DVI-I computer interface & Serial remote control
- High quality 1280 x 1024 LCD panel for accurate colour reproduction with wide viewing angle and fast response time
- Easy to use with selectable Gamma functions, including DICOM-like curve and 5 user preference settings
- NoDelayVideo mode for user's best comfort during surgical operations
- Robust anti-reflective, anti-glare protection screen
- External power supply
- Compliant with Safety Medical standards

PHILIPS
sense and simplicity

Specifications

Display Characteristic:

Technology:	Active matrix LCD with S-IPS
Display size:	19.0 inch (482 mm)
Native Resolution:	SXGA (1280 x 1024)
Display colours:	16,8 M colors, 24-bit
Pixel pitch:	0.294 x 0.294 mm
Viewing angle:	170° Hor./ 170° Ver
White Luminance:	300 cd/m2 (Typ.)
Contrast ratio:	500 : 1 (Typ.)
Response time:	Ton+Toff = 20 ms (Typ)

Input Output Signals:

Computer analog & digital:	DVI-I (up to 1080p HDTV)
Composite (in):	BNC (x1) 1.0Vp-p ±3 dB, neg. Sync
Composite (out):	BNC (x1) Active loop-through
S-Video (in):	4 pin mini Din
S-Video (out):	Active loop-through
Component YPbPr/ RGBS :	SDTV - BNC (x4)
SDI (in):	HDTV - BNC (x1) up to 1080i SMPTE 259M-C / 292M
SDI (out):	BNC (x1) Active loop-through
Remote (RS232):	RJ 11 connector
Remote (GPIO):	9 pin connector (option)

Protection Screen:

Double-coated, anti-reflective :	Hardness 8H Transmittance > 98% Reflective rate < 1%
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General:

Dimensions:	425 x 375 x 97
Weight:	7.7 Kg (17.0 lbs)
Standard mounting:	VESA 100 compatible
Power supply:	100 to 240 VAC ±10%, 47-63 Hz, auto switch + 12V (included)
External Med AC/DC adapter: Power supply for Fiber Optic adapter:	+5VDC / 500 mA on DVI port
Power consumption:	65W (12W stand-by)
Operating temperature:	0° to 35°C
Storage temperature:	-20° to 60°C
Relative humidity:	20% to 90%, non condensing

Compliance & Certifications:

Medical Electrical Safety Standards:	IEC60601-1, UL60601-1, CSA-C22.2 nr 601-1-M90
Medical EMC Standards:	IEC60601-1-2, EN55011 /CISPR 11, FCC CFR47 part 15 & 18
Approvals/Marking:	CE, C-UL-US

Functionality:

Excellent picture quality:

The EI 90H has the best-in-class picture quality thanks to a sophisticated signal processing specifically designed for low-noise, flicker-free image that minimizes the doctor's eye fatigue.

In addition its internal 10-bit digital signal processing provides accurate colour reproduction for the detection of the most subtle colour changes.

Calibrated for perfect color and grayscale reproduction:

Each monitor is factory calibrated in order to deliver color consistency and constant color temperature through the whole grayscale range. Multiple images from different imaging modalities can be displayed without quality loss.

NoDelayVideo (Diagnostic & Surgical mode):

For critical operations the monitor can reduce to a minimum the picture delay typical of all the digital displays, thus closing the gap with CRT monitors.

Flexibility and versatility:

Full range of Computer and Video input signals, analog and digital, including SD & HD-SDI (SMPTE 259M-C / 292M).

Easy fit with Fiber Optic connections:

In case signals are distributed through fiber optic cables within the OR, the monitor can provide a valuable simplification of the installation. In fact it provides a specific +5 VDC power output, as required by the f.o. adapters, integrated in its DVI connector, thus avoiding the need for an additional power supply unit or extra cables along the arms. An internal slot is available for a full integration of the FO adapter.

Easy to use OSD menu:

All picture parameters can be easily adjusted for a perfect match with any video input and camera characteristics.

Available controls: Brightness / Contrast / Color temperature / Color saturation / Gamma / Image size / User memory / Input signal / Power saving mode / NoDelayVideo.

Smart Touch controls:

SmartTouch controls are intelligent, ultra-responsive, touch sensitive keys that replace protruding buttons.

The set of 5 keys located on the right-bottom side of the front bezel, for direct control of brightness, contrast, input selection and OSD menu.

RS232 interface:

Main functions can be controlled with remote commands through the serial port.

Safe & Reliable:

A stringent reliability plan has been applied during the design stage to assure many years of trouble-free operation in the field.

Production is continuously monitored by short-term and long-term quality testing to maintain the product reliability.

Protection:

Protection against ingress of solid and water (IP21).

The monitor has been designed to give an high protection (IP54) on the front side, to allow an accurate cleaning and disinfection of the front panel.

