## Symphony

# by Keeler TECHNICAL SPECIFICATIONS

## **OPTICAL SYSTEM**

Туре	Galilean converging binoculars @ 8°
Magnification	Rotating drum change x6, x10, x16, x25 & x40
Eyepiece	x12.5
Field of view	34, 22, 14, 8.5 and 5.5 mm
Interpupillary distance	49.0 to 77mm
Objective lens focal distance	107mm
Objective lens convergence angle	13°
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## **SLIT PROJECTION SYSTEM & BASE**

Slit Width	0-12mm continuously variable
Slit Length	12mm (1.8 – 12mm continuously variable)
Aperture diameters	0.2, 1mm square, 2, 3, 5, 9 and 12mm
Filters	Clear; red free; neutral density; diffuser; blue; IR heat absorbing filter permanently installed
Slit angle	+/- 90° continuous
Slit rotation	+/- 180° with reference scale
Slit vertical Tilt	0°, 5°, 10°, 15° & 20°
Base travel	25mm Z-axis, 107mm X-axis, 110mm Y axis
Horizontal fine adjustment	12mm
Table top dimensions	405 x 500mm
Fixation lamp	LED
Light source	LED / 12V 30W Halogen lamp

## WEIGHT, PACKED (APPROX.)

Slit Lamp, complete with	26kg (max), 900 x 580 x 450 mm W x D x H
table top	(external dimensions)

## **POWER SUPPLY**

Power supply unit	Switch mode, (110V – 240V input) +/- 10% multi plug compliant to EN60601-1 EN 61000-6-2, EN 61000-6-3
Power supply output	12V DC: 2.5 amps must be IEC/EN 60601 compliant
Complies with	Electrical Safety (Medical) BS EN 60601-1 Electromagnetic compatibility EN 60601-1-2 Ophthalmic instruments - Fundamental requirements and test methods ISO 15004-1:2006
	Ophthalmic instruments - Optical radiation hazard ISO 15004-2:2007

### **ENVIRONMENTAL**

	Temperature	Humidity	Pressure
Use	+10°C to +35°C	30% to 90%	800 hpa to 1060 hpa
Storage	-10°C to +55°C	10% to 95%	700 hpa to 1060 hpa
Transport	-40°C to +70°C	10% to 95%	500 hpa to 1060 hpa

#### **CAMERA SYSTEM**

2 Megapixel: 1600 x 1200
USB2
CCD
Sony
1 / 1.8"
17.5 fps

## PROTECTION AGAINST INGRESS IPx0

#### **CLASS II ME EQUIPMENT**

Insulation between mains parts and the functional earth provide at least two means of protection  $% \left( {{{\rm{D}}_{\rm{B}}}} \right)$ 

## **SLIT LAMP ADDITIONAL FEATURES**

Base unit	Integral USB hub Joystick trigger system Auto left / right detection +/- Camera exposure controls Freeze frame image review control
Illumination system	External background illumination system LED / 12V 30W Lamp Auxiliary diffuser & blue filter for background illumination system
Power supply	12V DC (Bulb system / 24V DC (LED system) (110 – 240V input +/- 10%)

#### **KEELER KAPTURE SOFTWARE FEATURES**

Patient record, episode record	Add / edit / delete
Image capture	Still images
5	Freeze frame / burst mode
	Video (not available in Kapture lite)
	Automatic left / right eye detection
Image processing	4 up or 1 up viewing
inage processing	Green filter / channel
	Colour plane selection
	Auto RGB split
	Zoom
	lovert colours
	Sharpen
	Contrast / brightness
	Display image at true size
	Flip, rotate, mirror image
	Fit to window
	Dicom (upgrade option)
	Gamma control
	Histogram
	Delete
	Import / export
	Annotate, draw
	Measure (upgrade / option)
	Zoom
	Compare with other session images

## **RECOMMENDED PC SPECIFICATION**

Operating system	Windows XP 32 bit (minimum SP3) or Windows 7/8 64-bit
Windows features	Full install of .NET 2.0 and .NET 3.5 framework All .NET updates and OS updates
Processor	Intel Core i5 or i7 recommended
Memory	Minimum 4 GByte RAM
HDD	Minimum 500 MB Hard Disc (larger recommended) at 7200 rpm
Ports	2 Free Full speed USB2 ports that will support video
Backup Device	External HD, LAN, DVD-Writer or other
Monitor	Minimum 1024 x 768 resolution recommend 1600 x 900
Keyboard and Mouse	Wheel mouse preferred

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