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Science in Sight



NOVUS

Surgical Microscope

38

We are ready for the future

AN OS

THE COMPLETE MICROSCOPE SOLUTION

THE COMPLETE MICROSCOPE SOLUTION

NOVUS

SURGICAL MICROSCOPE

The Opto Novus Surgical Microscope incorporates a contemporary design with superior optical quality, offering excellent depth of focus without image distortion.



X-Y system



Binocular hitch for second observer



Video image capture system

VIDEO SYSTEM

Color digital camera, with high definition resolution CCD sensor (HD 720p); Digital video recording, allowing the recording of videos and photos in high definition, with HDMI output for direct connection to a monitor, and USB for recording on an external hard drive for data storage.



200° tiltable binocular



FlexMax
Adapter for use with non-contact wide-angle lenses



MODEL FOR OPHTHALMOLOGY, ENT, SPINE AND NEUROSURGERY

WITH HAND-OPERATED JOYSTICK CONTROL

Complete top-of-the-line microscope, with Zoom, motorized microfocus, LED lighting and control system at the professional's fingertips.

- Zoom Control



SRI Slim - Image Reinversion System for Vitrectomy



Automatic safety filter



Microfocus control; Lighting-intensity adjustment.



Multi-function pedal with on/off and lighting intensity controls, microfocus, zoom and x-y device



Binocular rotation system



Binocular extension system

Complete top-of-the-line microscope, with Zoom, motorized microfocus, LED lighting and control system at the professional's fingertips for:

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Electronic control panel

Base with lockable wheels for greater stability.

Apochromatic Optics

- Excellent contrast and image definition.
- Exceptional depth of focus.
- High light transmission, which allows working in low light conditions.
- Residual aberration correction for better image quality.

Advanced Electronic System

- Automatic and stabilized power supply for greater safety.
- Microfocusing and X-Y reset system.
- System tested and certified against electric shocks and protected against noise emissions.

Latest-generation LED lighting system

- Provides high-intensity illumination (up to 200,000 lux) with low noise, low consumption, low heat generation and long lifespan.

Stative

- Robust and stable.
- Smooth and precise movements.
- Castors with locking system.

High-Intensity Coaxial Illumination

- Bright and adjustable red reflex.
- Large illumination field 60 mm.
- Blue and red-free filters available.



Without Opto Red Reflex



With Opto Red Reflex

Equipped with the latest Sharp image technology and exclusive Opto Bright Red Reflex, the SM Novus microscope provides comfort, clarity and safer procedures.

Objectives

	Increments					Observation Field	
$f-175$	5.7x	91x	13.7x	22.9x	34.3x	8.8mm	52.5mm
$f-200$	5x	8x	12x	20x	30x	10mm	60mm
$f-225$	4.4x	7.1x	10.7x	17.8x	26.7x	11.3mm	67.5mm
$f-250$	4x	6.4x	9.6x	16x	24x	12.5mm	75mm
$f-300$	3.3x	5.3x	8x	13.3x	20x	15mm	90mm
$f-350$	2.9x	4.6x	6.9x	11.4x	17.1x	17.5mm	105mm
$f-400$	2.5x	4x	6x	10x	15x	20mm	120mm
Multiscope - objetiva variável com f de 200mm até 415mm							
$f-200$ a 300	3.3x	—	—	—	30x	10mm	90mm
$f-250$ a 350	2.9x	—	—	—	24x	12.5mm	105mm
$f-200$ a 415	2.4x	—	—	—	30x	10mm	125mm

discrete increases or continuous zoom

Opto - Conhecimento e Inovação



Vista aérea de unidade industrial



Produção de partes e peças mecânicas de precisão



Produção de componentes ópticos de alta precisão



Equipamentos de produção de filmes finos (coating ópticos)



Linha de produção de microscópios



Profissionais altamente capacitados

NOVUS OPTO SM MICROSCOPE

TECHNICAL SPECIFICATIONS	USE IN NEURO - ENT - ZOOM COLUMN	ZOOM OPHTHALMOLOGICAL USE	OPHTHALMOLOGICAL USE HEALTH
OPTICAL SYSTEM	APOCHROMATIC OPTICS WITH CORRECTION OF ALL OPTICAL ABERRATIONS		
STANDARD OBJECTIVE	300mm F with 60mm diameter	F 200mm with 60mm diameter	
MAGNIFICATION SYSTEMS	MOTORIZED ZOOM SYSTEM FACTOR 16		5 INCREASING FACTORS 0.42-0.67 -1 -1.67 - 245
MAGNIFICATIONS WITH STANDARD OBJECTIVE	FROM 3.3X TO 20X CONTINUOUS	FROM 5X TO 30X CONTINUOUS	5X, 8X, 12X, 20X AND 30X DISCRETE
OBSERVATION FIELD WITH STANDARD OBJECTIVE	FIELD FROM 15mm TO 90mm	FIELD FROM 10mm TO 60mm	
O C U L A R S	12,5X WITH LOCK - 27mm "EYE RELIEF" - FoVn 24mm		
D I O P T I C A D J U S T M E N T O F E Y E P I E C E S			
B I N O C U L A R S A V A I L A B L E			
I N T E R P U P I L L A R Y D I S T A N C E A D J U S T M E N T	-6 D TO +6 D 200º TILTING		
M I C R O F O C U S I N G	FROM 48mm TO 78mm FOR 200º BINOCULAR	MOTORIZED WITH PEDAL DRIVE	
M I C R O F O C U S I N G A D J U S T M E N T R A N G E	+/-20mm		
L I G H T I N G	HIGH INTENSITY LED SYSTEM ADJUSTABLE UP TO 200,000 LUX	HIGH INTENSITY LED SYSTEM ADJUSTABLE UP TO 150,000 LUX	
I L L U M I N A T I O N F I E L D W I T H S T A N D A R D L E N S	DIAMETER UP TO 60mm	DIAMETER UP TO 50mm DIAMETER UP TO 50mm	
M A C U L A P R O T E C T I O N	NOT APPLICABLE	INTEGRATED WITH THE FILTER SYSTEM	
F I L T E R S	ANTI ULTRAVIOLET, ANTI INFRARED, BLUE FILTER (COBALT) GREEN FILTER (RED-FREE) AND SIMULATED HALOGEN		
M O B I L E S T A N D	FILTER WITH PANTAGRAPHIC ARM		
V E R T I C A L D I S P L A C E M E N T	0.7M	0.6M	
R A N G E	1,485M	1.2M	
R O T A T I O N A N G L E	Rotation of the 1st arm around the column by 120º or 360º / Rotation of the 2nd arm around the 1st arm by 293º or 330º Rotation of the optical assembly in relation to the 1st arm by 270º		
M O B I L E B A S E A N D D I M E N S I O N S	840mm X 840mm - LOCKABLE WHEELS		
J O Y S T I C K / P E D A L	MULTIFUNCTION JOYSTICK ON OPTICAL HEAD AND OPTIONAL WATER-RESISTANT MULTIFUNCTION PEDAL	WATER-RESISTANT MULTIFUNCTION PEDAL	SINGLE OR OPTIONAL MULTIFUNCTION WATER RESISTANT PEDAL
P O W E R S U P P L Y	"FULL RANGE" TYPE FROM 90VAC TO 240VAC AUTOMATIC 50-60HZ		
S T A N D A R D C O N S U M P T I O N	200VA		
OPTIONAL SYSTEMS	AVAILABLE		
DEPTH OF FOCUS MANAGER	AVAILABLE WITH 12.5X BINOCULAR EYEPIECE FIXED 45º OR TILTING 200º AND ROTATION 360º		
BINOCULAR RING	ALLOWS THE BINOCULAR TO BE TURNED UP TO +/- 35º	NOT APPLICABLE	
BINOCULAR TURNING SYSTEM	ALLOWS THE BINOCULAR TO BE EXTENDED FROM 55mm TO 45º	NOT APPLICABLE	
BINOCULAR EXTENDER	IMAGE SPLITTER+ ADAPTER+ DIGITAL CAMERA+ VIDEO AND IMAGE RECORDING SYSTEMS		
VIDEO SYSTEM	IMAGE DIVIDER + ADAPTER FOR REFLEX CAMERA		
VIDEO SYSTEM - CAMERA	21Vx 150W-100,000 LUX HALOGEN LAMP DUAL SYSTEM		
OPTIONAL LIGHTING	A D J U S T M E N T R A N G E O F + / - 2 2 m m O N X A N D Y A X I S		
MOTORIZED XY SYSTEM	NOT APPLICABLE	FILTER SYSTEM FOR 810nm LASER	
IMAGE REINVERTER SYSTEM	FILTERS FOR INFRA-RED 810nm AND YELLOW 586nm LASERS - FIXED, MANUAL AND AUTOMATIC		
ANTI LASER PROTECTION FILTERS	OPTIONAL MONITOR WITH DIMENSIONS OF 15" A 23" 5		
MONITOR INTEGRATED TO THE STAND	VARIABLE LENS SYSTEM WITH M/F: 200 TO 300mm OR 250 TO 350mm OR 200 TO 415mm 175mm,		
OPTIONAL OBJECTIVES	200mm, 225mm, 250mm, 300mm, 350mm and 400mm		
MULTISCOPE (VARIABLE LENS)			
OPTIONAL STATIONS	YES		
FIXED FLOOR STAND CEILING OR WALL STAND	ON REQUEST DEPENDING ON THE TYPE OF EXISTING STRUCTURE		

Notes: 1. Chemical lock using very high viscosity grease. 2. Consult adaptable camera models. 3. To install the XY on the 5x magnification microscope, it is necessary to purchase the Multifunction Pedal, which is sold separately. 4. Rotation with specifications according to customer requests. For higher rotations, ballast is required. 5. Opto does not manufacture monitors, but there are monitors suitable for the medical area on the market to be purchased and used with Opto Microscopes. Opto optionally offers the SM Novus in all its versions the support for attaching monitors to the microscope stand.



MASTER GLOBAL DISTRIBUTOR

Contact: Juan Carlos Torres
info@jkmedicalinc.com
c: +1(407)342-8575
www.jkmedicalinc.com

