Dedicated to your patients
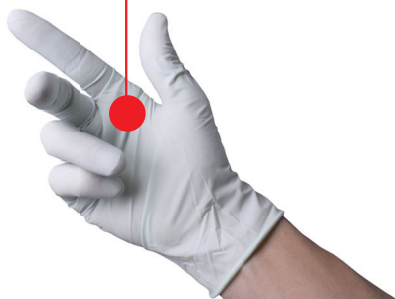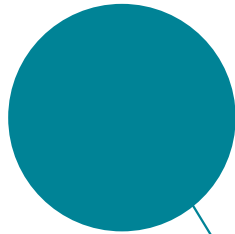
Inspired by you

INTUITIVE CONNECTION

EQUIPMENT

COMEG
medical technologies

CONTENTS

CONTENTS

1

ABOUT US

ABOUT US

1. ABOUT US

PRODUCT RANGE AT A GLANCE

From endoscopic equipment to ultrasonic surgeries, COMEG offers a wide range of medical devices.

ENDOSCOPIC EQUIPMENT

Equipment

COMEG meets the needs of international surgeons and dealers by supplying complete solutions for video endoscopy. Our range includes equipment for both consulting and operating rooms, using latest technologies available in the market. Full HD video cameras, Xenon and LED light sources, insufflators, pumps, medical grade monitors and visualization/archiving systems. These products have already proven their worldwide reliability and are considered today as a standard in the mini invasive surgery field.

CRANIO-MAXILLO-FACIAL SURGERY AND RHINOPLASTY

Cranio-Maxillo-Facial surgery and Rhinoplasty

COMEG offers a complete range of piezoelectric ultrasonic devices together with a wide range of tips to match every surgeon and surgery needs. Our powerful devices allow for more safety during surgery, enhance healing and reduce post-operative pain.

RESEARCH & DEVELOPMENT

Innovation being the key to improve health, COMEG invests a significant part of its revenue in R&D and patents filing. Our world-renowned know-how is medical imaging, relying on senior engineers with strong expertise in electronics, software, optics and mechanics.

Also, we in COMEG, have access to the very wide R&D department and connections of our mother company, Acteon® group, adding to the previous know-how: ultrasounds, chemicals, motors, X-Ray and Cone Beam Computed Tomography systems (CBCT).

This very rare combination of know-how allows us to join the extremely limited group of the companies mastering the design & the manufacturing of a complete endoscopic solution.

Moreover, COMEG is working closely with surgeons and is looking every day such collaborations in order to well answer surgeons and patients needs.

REGULATORY

Our business practices and processes are designed to achieve quality results that exceed the expectations of patients, customers and surgeons. We are commited to provide high quality healthcare products all around the world.

From the start of development of a new device through manufacturing to the final quality control check before delivery, Quality is built into all our products, as our commitment and dedication are to our customers throughout the world.

Our plants are certified to the highest international quality standard, ISO 13485 for Design, Manufacturing and Sales. Our products comply with the various regulations established across the world, specifically those required by the Food and Drugs Administration (FDA) and the European Union.

COMEG manufactures equipment in accordance with the following directives or standards:

- Medical device directive 93/42 EEC (and 2007/47 EEC)
- EN ISO 13485: 2016 certified Quality management system
- MDSAP-GMED Certificate; ISO 13485: 2016 for Australian, Israël, Canada, Japan, USA
- Series of standards IEC 60601
- FDA regulations (FDA Quality system Regulation 21 CFR Part 820)
- EC attestations issued for all our class IIa devices

ABOUT US

1. ABOUT US

SERVICE & ASSISTANCE

In our main plants, our on-site specialists are dedicated to servicing and providing expertises to your COMEG products:

- Express repairs of all our products under warranty
- Free quotations if accepted for all repairs out of warranty
- Qualified repairs with original spare parts
- Technical trainings

• COMEG
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COMEG representative offices

Production units

COMEG REPRESENTATIVE OFFICES

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info.th@acteongroup.com

ABOUT US
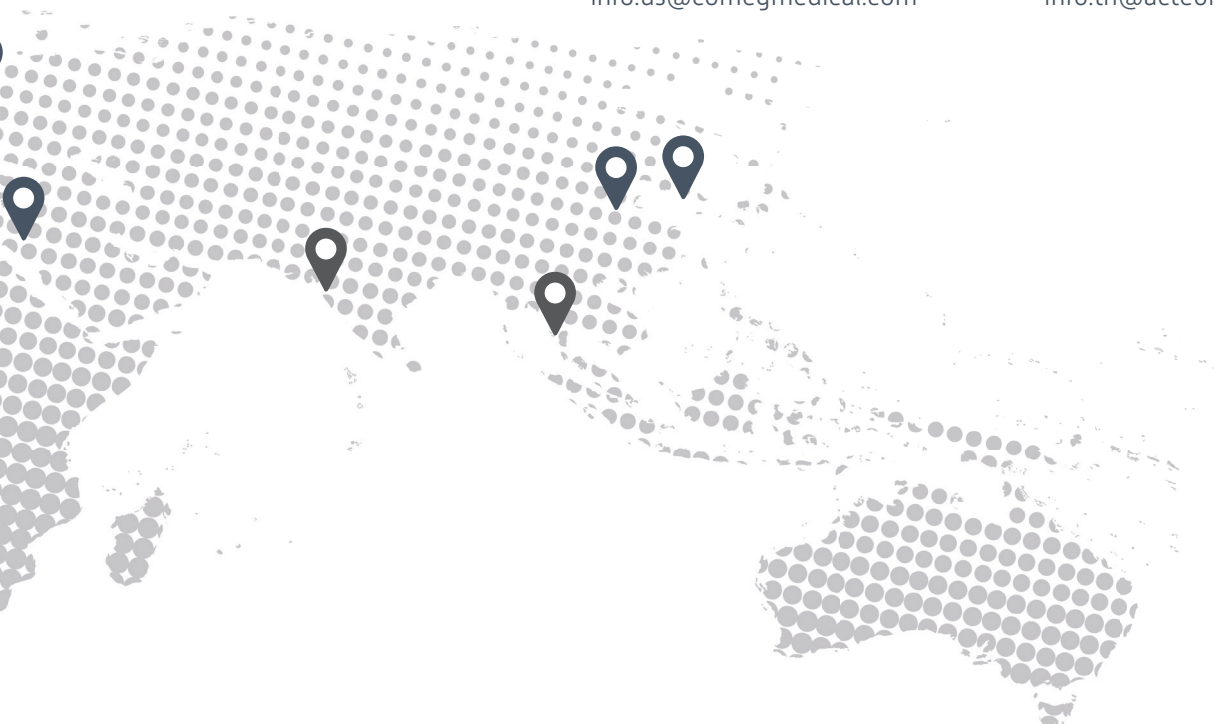
2

VIDEO CAMERAS

VIDEO CAMERAS

SOPRO™ is an unregistered trademark of SOPRO
Ubicam® is a registered trademark of SOPRO

2. VIDEO CAMERAS

FULL HD CAMERA
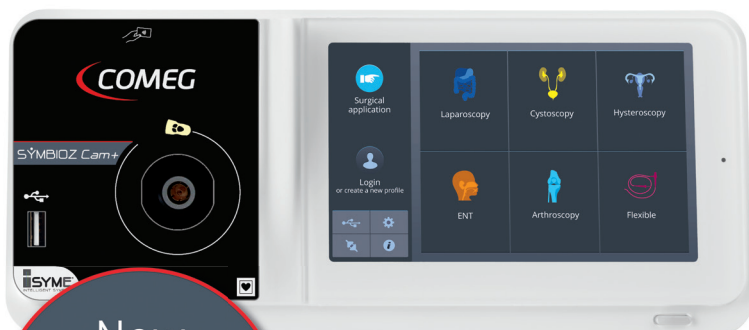
SYMBIOZ *Cam+*
Full HD

New
Full HD
generation

Reference	Designation
S_198_9000	SYMBIOZ CAM+ FULL HD CCU - EU
S_198_9001	SYMBIOZ CAM+ FULL HD CCU - US

Exmor R™
CMOS Sensor

Twice as sensitive
as conventional FULL HD
sensors, for great image
quality even in low light
conditions.

With Sony Exmor R™
and ISYME technologies,
SYMBIOZ+ expands
the boundaries of your
vision.

Reference	Designation / Description
S_198_8000	SYMBIOZ CAM+ SENSOR SYMBIOZ Cam+ Full HD - C-mount camera head with detachable 16-34mm zoom coupler - Compatible with all C-mount cameras

ISYME
INTELLIGENT SYMBIOZ

ISYME is designed to provide real time synchronization and optimize components settings.

Exmor R™ is an unregistered trademark of SONY

SPECIFICATION OF THE CAMERA CONTROL UNIT (CCU) *S_198_9000 & S_198_9001*

- Digital zoom up to 2.5x
- Application and user menus
- 6 optimized preset applications
- All functions available from the camera head
- Instant and contactless access to preset applications and personal profiles with the SCards*
- Unlimited number of profiles with personal presets up to 5
- Communication between SYMBIOZ Led, SYMBIOZ Flow, SYMBIOZ Master & monitor thanks to ISYME concept
- Full HD Images and Videos recorder integrated (USB)
- Automatic compensation function for defective pixels
- Automatic white balance
- Freeze, mirror and gain functions
- Brightness, details, red and blue gains, gamma, color adjustments
- Blue test function
- Noise reducer: OFF / LOW / HIGH
- Electronic anti-moiré filter for flexible endoscopes
- On screen displayed adjustments
- Reset to the factory settings
- 7" 16/9 touch screen with intuitive interface

- RF transmitter:
  - Type: RFID
  - Frequency: 13,56 MHz
  - Modulation feature: OOK
  - Transmitter power: 70 mW (+18 dBm)
- Video outputs:
  - CVBS: 1.0 V [P-P] / 75 ohms, Negative Sync
  - Y/C: Y: 1.0 V [P-P] / 75 ohms, C: 0.286 V [P-P] (NTSC), C:0.3 V [P-P] V [P-P] (PAL) / 75 ohms, Negative Sync
  - RGB: 3 x 0.7 V [P-P] & 0.3 V [P-P] / 75 ohms
  - HD-SDI, 3G-SDI: 0.8 V [P-P] / 75 ohms SMPTE292M, SMPTE425M-A
  - DVI-D: 3 x 0.7 Vcc & 0.3 Vcc / 75 ohms
- 2 peripheral outputs
- Dimensions (W x H x D): 310 x 136 x 385mm
- Weight: 4200 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 240 VAC / 50 - 60 Hz
- Power consumption: 50 VA
- Two T1AL - 250 V fuses (Marked UL/CSA only)
- 14 languages
- Continuous service

SPECIFICATION OF THE CAMERA HEAD *S_198_8000*

- 1CMOS Exmor R™ technology 1/2'' Full HD sensor
- HD 16-34mm zoom coupler
- 3 fully programmable buttons
- Free scope rotation and locking system
- Automatic or adjustable electronic shutter (1/50 to 1/100000)
- Resolution: HDTV 1080p format: 1920 x 1080 pixels
- Definition: 1080 lines
- Active pixels area: 1920 x 1080 pixels

- Progressive Scan Technology
- Acquisition in native 16:9 format
- Sensitivity: 0.1 lux
- Signal / Noise ratio: 57dB
- Cable length: 3 meters
- Dimensions (D x H): 149 x 53mm
- Weight: 250 g (camera head: 150 g + coupler : 98 g)
- Protection type: IPX7 (waterproof)

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, CF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -10°C / +45°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa
- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

Exmor R™ is an unregistered trademark of SONY
* For SCARD, see after SYMBIOZ cameras chapter

2. VIDEO CAMERAS

FULL HD CAMERA

SYMBIOZ Cam
Full HD

Native Full HD 1080p

Reference	Designation
S_398_9000	SYMBIOZ CAM FULL HD CCU - EU
S_398_9001	SYMBIOZ CAM FULL HD CCU - US

Reference	Designation / Description
S_398_9002	SYMBIOZ CAM FULL HD CCU R - EU SYMBIOZ Cam Full HD Camera control unit with recorder integrated - EU
S_398_9003	SYMBIOZ CAM FULL HD CCU R - US SYMBIOZ Cam Full HD Camera control unit with recorder integrated - US

Reference	Designation / Description
S_398_8000	SYMBIOZ CAM SENSOR SYMBIOZ Cam Full HD - Camera head with integrated HD 15-35mm zoom coupler

SPECIFICATION OF THE CAMERA CONTROL UNIT (CCU) *S_398_9000 & S_398_9001 / S_398_9002 & S_398_9003*

- Digital zoom up to 2.5x
- Application and user menus
- 6 optimized preset applications
- All functions available from the camera head
- Instant and contactless access to preset applications and personal profiles with the SCards*
- Unlimited number of profiles with personal presets up to 5
- Communication between SYMBIOZ Led, SYMBIOZ Flow, SYMBIOZ Master & monitor thanks to ISYME concept
- Automatic compensation function for defective pixels
- Automatic white balance
- Freeze, mirror and gain functions
- Brightness, details, red and blue gains, gamma, color adjustments
- Noise reducer: OFF/ LOW / HIGH
- Electronic anti-moiré filter for flexible endoscopes
- On screen displayed adjustments
- Reset to the factory settings
- RF transmitter:
    - Type: RFID
    - Frequency: 13,56 MHz
    - Modulation feature: OOK
    - Transmitter power: 70 mW (+18 dBm)
- Video outputs:
    - CVBS: 1.0 V [P-P] / 75 ohms, Negative Sync
    - Y/C: Y: 1.0 V [P-P] / 75 ohms, C: 0.286 V [P-P] (NTSC), C:0.3 V [P-P] V [P-P] (PAL) / 75 ohms, Negative Sync
    - RGB: 3 x 0.7 V [P-P] & 0.3V [P-P] / 75 ohms
    - HD-SDI: 0.8 V [P-P] / 75 ohms SMPTE292M
    - DVI-D: 3 x 0.7 Vcc & 0.3 Vcc /75 ohms
- 2 peripheral outputs
- 7" 16/9 touch screen with intuitive interface
- Dimensions (W x H x D): 310 x 136 x 385mm
- Weight: 4300 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 230 VAC / 50 - 60Hz
- Power consumption: 38-50 VA
- Two T2,5AL - 250 V fuses (Marked UL/CSA only)
- 14 languages
- Continuous service

Option *S_398_9002 & S_398_9003*
- Full HD Images and Videos recorder integrated (USB)

VIDEO CAMERAS

SPECIFICATION OF THE CAMERA HEAD *S_398_8000*

- 3CMOS technology 1/3'' Full HD sensors
- HD 15-35mm integrated zoom coupler
- 3 fully programmable buttons
- Free scope rotation and locking system
- Automatic or adjustable electronic shutter (1/50 to 1/100000)
- Resolution: HDTV 1080p format: 1920 x 1080 pixels
- Definition: 1080 lines
- Active pixels area: 1920 x 1080 pixels
- Progressive Scan Technology
- Acquisition in native 16:9 format
- Sensitivity: 5 lux
- Signal / Noise ratio: 54 dB
- Cable length: 3 meters
- Dimensions (D x H): 149 x 53mm
- Weight: 270 g
- Protection type: IPX7 (waterproof)

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, CF type applied parts
- Operating temperature: +10°C/+40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -10°C / +45°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa
- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

* For SCARD, see after SYMBIOZ cameras chapter

2. VIDEO CAMERAS

SCARDS
FOR SYMBIOZ CAM+ & SYMBIOZ CAM

PERSONALIZED TOWER SETTINGS FOR EACH PHYSICIAN.

Optimized components programming.

Optimize your settings, store them and find them directly on your tower.

Customized settings are programmed, stored and retrieved with contactless NFC technology. Physicians choose and program tower settings by procedure, storing them on a personalized SCard. Using proprietary SCard technology prior to the procedure, the tower recognizes each physician, and programs the tower to their personalized settings for a particular surgery.

SCARD

Dr MARTIN CHU

SCARD

COMEG
medical technologies

Simply use your personalized SCARD to program the tower with touchless technology.
Camera control unit, light source, insufflator, monitors and camera head controls.

- Hysteroscopy
- Laparoscopy
- Cystoscopy
- Arthroscopy
- ENT
- Flexible

Reference	Designation / Description
990245	**KIT SCARD X7** Kit SCard x7 (Laparoscopy, Hysteroscopy, Cystoscopy, ENT, Arthroscopy, Flexible + 1 Admin)

Reference	Designation
990246	SCARD ADMIN X1

Reference	Designation
905021	BLANK SCARD X1

2. VIDEO CAMERAS

FULL HD CAMERA
WITH LED LIGHT SOURCE

DUO
Full HD

Native Full HD 1080p

Reference	Designation / Description
S_195_9000	DUO FULL HD - S195 - CCU - EU DUO FULL HD - S195 - Camera control unit - EU
S_195_9001	DUO FULL HD - S195 - CCU - US DUO FULL HD - S195 - Camera control unit - US

Reference	Designation / Description
S_195_8000	DUO FULL HD - S195 - SENSOR DUO FULL HD - S195 - Camera head - Without coupler

Reference	Designation / Description
S_024_0001	24MM HD COUPLER 3S V1 24mm HD coupler - C-mount - Scope holder with locking capacity - Weight: 87g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras

SPECIFICATION OF THE CAMERA CONTROL UNIT (CCU) *S_195_9000 & S_195_9001*

- Automatic white balance
- Video outputs:
  - 1 HDMI
  - 1 HD-SDI
  - 1 USB 3.0 micro B
- Recommended USB stick format: FAT32
- Compatible with Storz® and Olympus® type light cables
- Electronic iris shutter
- Automatic thermal protection system
- Light intensity equivalent to 180 Watts Xenon light source
- Manual adjustment of the light intensity
- Anti-blinding feature with light cable detection
- LED technology
- LED lifetime up to 50 000 hours
- Color temperature: 5 000 K
- Brightness, details, red and blue gains, color adjustments
- Gain: Off / Low / High
- On screen displayed adjustments
- "SAVE" function to memorize the settings
- "RESET" function to restore to the factory settings
- Digital zoom up to 2.5x
- Full HD Images recorder integrated (USB) / .tiff format
- Touchscreen with intuitive interface
- 17 languages
- Dimensions (W x H x D): 260 x 100 x 215mm
- Weight: 1900 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 240 VAC / 50 - 60 Hz
- Power consumption: 85-95 VA
- Two T 1,6 A - 250 V fuses (Marked UL/CSA only)
- Continuous service

SPECIFICATION OF THE CAMERA HEAD *S_195_8000*

- 1CMOS Exmor R™ technology 1/2'' Full HD sensor
- 2 Programmable buttons
- Automatic electronic shutter (1/50 to 1/100 000)
- Resolution: 1920 x 1080 p
- Definition: 1080 lines
- Active pixels area: 1920 x 1080
- Cable length: 2,99 meters
- Dimensions (D x H): 130 x 47mm
- Weight (camera only): 150 g
- Protection type: IPX7 (waterproof)

SPECIFICATION OF THE CAMERA HEAD *S_024_0001*

- 24mm HD coupler
- C-mount, scope holder with locking mechanism
- Weight: 87 g
- Protection type: IPX7 (waterproof)

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, CF type applied parts
- Operating temperature: +10°C / +40°C
- Transport temperature: -10°C / +45°C
- Storage temperature: +10°C / +40°C
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa
- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60601-1-2; IEC60601-1-6 and NF EN ISO 15223-1
- IEC 62471: risk group 1
- Not suitable for use in presence of flammable gaz. Recommendation of use in an operating and consulting room in accordance with applicable regulations

VIDEO CAMERAS

2. VIDEO CAMERAS

FULL HD CAMERA

SOPRO
397

Native
Full HD
1080p

Reference	Designation / Description
S_397_9000	S397 CCU - EU S397 - Digital Full HD 16/9 3CCD Camera control unit - EU
S_397_9001	S397 CCU - US S397 - Digital Full HD 16/9 3CCD Camera control unit - US
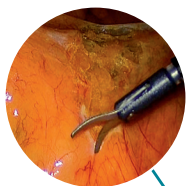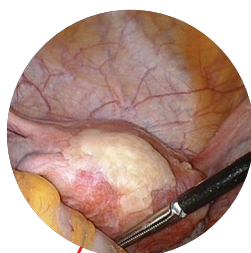
icons

Reference	Designation / Description
S_097_0001	24MM HD COUPLER 24mm HD coupler - C-mount - scope holder with locking capacity - for S397 camera head - Weight: 60g - Protection type: IPX7 (waterproof) without coupler

Reference	Designation / Description
S_397_8000*	S397 SENSOR S397 - Camera head - Digital Full HD 16/9 3CCD - C-mount - without coupler

SPECIFICATION OF THE CAMERA CONTROL UNIT (CCU) *S_397_9000 & S_397_9001*

- Digital zoom Up to 2.5x
- Menu by Application
- Automatic saving of the adjusted parameters
- Text generator with keyboard connection
- Automatic adjustment of sensitivity to low light (auto exposure control)
- Automatic compensation function for defective pixels
- Automatic white balance
- Freeze, mirror and gain functions
- Details, red and blue gains, gamma, color adjustments
- Noise Reducer: OFF / LOW / HIGH
- Electronic anti-moiré filter for flexible endoscopes
- On screen displayed adjustments
- Reset to the manufacturer settings
- 2 peripheral outputs

- Video outputs:
    - 1 DVI-D: 3 x 0.7 Vcc & 0.3 Vcc /75 ohms
    - 2 HD-SDI: 0.8 V [P-P] / 75 ohms SMPTE292M
    - 1 RGB: 3 x 0.7 V [P-P] & 0.3V [P-P] / 75 ohms
    - 1 Y/C: Y: 1.0 V [P-P] / 75 ohms, C: 0.286 V [P-P] (NTSC), C:300 V [P-P] V [P-P] (PAL) / 75 ohms Negative Sync
    - 1 VBS: 1.0 V [P-P] / 75 ohms Negative Sync
- Dimensions (W x H x D): 300 x 125 x 311mm
- Weight: 2500 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 230 VAC / 50 - 60Hz
- Power consumption: 45 VA
- Two T2,5A - 250 V fuses (Marked UR only)
- 5 languages (EN, FR, DEU, ES, IT)
- Continuous service

SPECIFICATION OF THE CAMERA HEAD *S_397_8000*

- Ultra small camera head with its micro prism technology
- 3 CCD technology 1/3" Full HD sensors
- 3 fully programmable buttons
- Free scope rotation and locking system
- Automatic or adjustable electronic shutter (1/50 to 1/100 000)
- Resolution: HDTV 1080p format: 1920 x 1080 pixels
- Definition: 1080 lines
- Active pixels area: 1920 x 1080 pixels

- Progressive Scan Technology
- Acquisition in native 16:9 format
- Sensitivity: 1,5 lux
- Signal / Noise ratio: 70dB
- 14 bits processing
- Cable length: 3 meters
- Dimensions (W x H x D): 37 x 50 x 95mm
- Weight: 250 g
- Protection type: IPX7 (waterproof)

SPECIFICATION OF THE COUPLER *S_097_0001*

- 24mm HD coupler
- C-mount, scope holder with locking capacity

- Weight: 60 g
- Protection type: IPX7 (waterproof)

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, BF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -10°C / +45°C
- Transport and storage relative humidity: 20% to 85%
- Operating and storage transport atmospheric

pressure: 700 hPa to 1060 hPa
- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

2. VIDEO CAMERAS

SD CAMERA

SOPRO
184
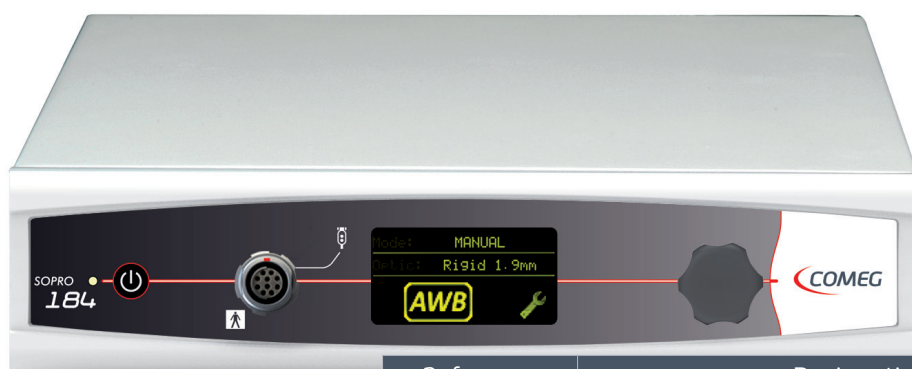
Reference	Designation / Description
S_184_9100	**S184 CCU - PAL/NTSC - EU** S184 1CCD - Camera control unit - PAL / NTSC - USB2 output, SIM software (trial version) - EU
S_184_9101	**S184 CCU - PAL/NTSC - US** S184 1CCD - Camera control unit - PAL / NTSC - USB2 output, SIM software (trial version) - US
S_184_9102	**S184 CCU - PAL/NTSC - SDI - EU** S184 1CCD - Camera control unit - PAL / NTSC - USB2 output, SIM software (trial version) - 2 SDI outputs - EU
S_184_9103	**S184 CCU - PAL/NTSC - SDI - US** S184 1CCD - Camera control unit - PAL / NTSC - USB2 output, SIM software (trial version) - 2 SDI outputs - US
Option	SOPRO™ Imaging Software - chap.8

Reference	Designation / Description
S_084_0001	**18.5MM COUPLER** 18,5mm coupler - C-mount - scope holder with locking capacity - Weight: 20g - Protection type: IPX7 (waterproof) - Designed for S181, S165 & S184 only

Reference	Designation / Description
S_184_8100	**S184 SENSOR PAL** S184 - Camera head - C-mount - without coupler - PAL
S_184_8101	**S184 SENSOR NTSC** S184 - Camera head - C-mount - without coupler - NTSC

For more options, see accessories at the end of this chapter

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SPECIFICATION OF THE CAMERA CONTROL UNIT (CCU) *S_184_9100 & S_184_9101 / S_184_9102 & S_184_9103*

- Application and user MENUS
- Intuitive menu with navigation wheel
- Automatic video settings detection mode
- Automatic saving of the adjusted parameters
- Automatic white balance with iCe technology
- Red and blue gains, gamma adjustments
- Electronic anti-moiré filter for flexible endoscopes
- Reset to the manufacturer settings
- Video outputs:
  - 1 RGBS: 3 x 0,7 Vcc / 0,3 Vcc / 75 ohms
  - 1 Y/C: 1 Vcc / 0,3 Vcc / 75 ohms
  - 1 composite: 1 Vcc / 75 ohms
  - 1 USB 2.0

- 1 peripheral output
- 2.7" OLED screen
- Dimensions (W x H x D): 300 x 300 x 66mm
- Weight: 1500 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 240 VAC / 50 - 60 Hz
- Power consumption: 20 VA
- Two T800 mA - 250V fuses (Marked UL/CSA only)
- 5 languages (EN, FR, DEU, ES, IT)
- Continuous service

Option *S_184_9102 & S_184_9103*
- 2 digital SDI outputs

SPECIFICATION OF THE CAMERA HEAD
S_184_8100 & S_184_8101

- 1CCD technology 1/4'' sensor
- 2 fully programmable buttons
- Automatic or adjustable electronic shutter (1/50 to 1/100 000)
- Resolution: 752 x 582 PAL; 768 x 494 NTSC
- Definition: > 500 lines
- Active pixels area: 752 x 582 PAL; 768 x 494 NTSC

- Sensitivity: > 1 lux
- Signal/Noise Ratio: 52dB
- Cable length: 3 meters
- Dimensions (D x H): 80 x 30mm
- Weight: 100 g
- Protection type: IPX7 (waterproof)

SPECIFICATION OF THE COUPLER *S_084_0001*

- 18,5mm coupler
- C-mount, scope holder with locking capacity

- Weight: 77 g
- Protection type: IPX7 (waterproof)

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, BF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 20% to 85%
- Transport and storage temperature: -10°C / +45°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric

  pressure: 700 hPa to 1060 hPa
- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

VIDEO CAMERAS

2. VIDEO CAMERAS

USB CAMERA

Reference	Designation / Description
S_181_0011	**UBICAM - S181 - 1/4 PAL** UBICAM® - S181 - 1/4"CCD USB2 - C-mount - PAL - SIM software (trial version) - without coupler
S_181_0015	**UBICAM - S181 - 1/4 NTSC** UBICAM® - S181 - 1/4"CCD USB2 - C-mount - NTSC - SIM software (trial version) - without coupler
Option	SOPRO™ Imaging Software - chap.8

Reference	Designation / Description
S_084_0001	**18.5MM COUPLER** 18,5mm coupler - C-mount - scope holder with locking capacity - Weight: 20g - Protection type: IPX7 (waterproof) - Designed for S181, S165 & S184 only

For more options, see accessories at the end of this chapter
Ubicam® is a registered trademark of SOPRO
SOPRO™ is an unregistered trademark of SOPRO

SPECIFICATION OF THE USB CAMERA HEAD *S_181_0011 & S_181_0015*

- 1CCD technology 1/4" sensor
- 2 programmable buttons allowing: record, white balance, anti-moiré filter activation
- Automatic video settings detection mode
- Automatic saving of the adjusted parameters
- Automatic white balance
- Automatic detection of the colour temperature according to the used light source
- Virtual Camera Control Unit: Automatic white balance, video parameters, flexible or rigid applications, shortcuts
- Modification of the video parameters
- Electronic anti-moiré filter for flexible endoscopes
- Immersible USB connector (when covered)
- Automatic or adjustable electronic shutter (1/50 to 1/100 000)
- Resolution: 752 x 582 PAL; 768 x 494 NTSC
- Definition: 470 lines
- Active pixels area: 752 x 582 PAL; 768 x 494 NTSC
- Sensitivity: 2 lux
- Signal/Noise Ratio: 52 dB
- Cable length: 3 meters
- Dimensions (D x H): 87 x 30mm
- Weight: 100 g
- Protection type: IPX7 (waterproof)
- Power supply: 5 V DC
- Power consumption: 2,5 VA
- 1 USB 2.0 video output
- Continuous service

SPECIFICATION OF THE COUPLER *S_084_0001*

- 18,5mm coupler
- C-mount, scope holder with locking capacity
- Weight: 77 g
- Protection type: IPX7 (waterproof)

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, BF type applied parts
- Operating temperature: +10°C / +35°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -10°C / +45°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa
- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

VIDEO CAMERAS

2. VIDEO CAMERAS

ACCESSORIES FOR VIDEO CAMERAS

Reference	Designation / Description
S_097_0001	**24mm HD Coupler** 24mm HD coupler - C-mount - scope holder with locking capacity - for S397 camera head - Weight: 60g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras
S_097_0002	**24mm HD Coupler Focus ring** 24mm HD coupler - C-mount - scope holder with locking capacity - for S397 camera head - with high torque focus ring for Arthroscopy - Weight: 60g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras

Reference	Designation / Description
S_024_0001	**24MM HD COUPLER 3S V1** 24mm HD coupler - C-mount - Scope holder with locking capacity - Weight: 87g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras

Reference	Designation / Description
S_701004	**18mm Beamsplitter 90° coupler** 18mm Beamsplitter 90° coupler - C-mount - 360° rotatable head - without eyepiece - for S397 camera head - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras

Reference	Designation / Description
S_413051	**F16-34mm coupler** 16-34mm HD Zoom coupler - C-mount - scope holder - Compatible with all C-mount cameras

Reference	Designation / Description
S_084_0001	**18.5mm Coupler** 18,5mm coupler - C-mount - scope holder with locking capacity - Weight: 77g - Protection type: IPX7 (waterproof) - Designed for S181, S165 & S184 only
S_084_0007	**13mm Coupler** 13mm coupler - C-mount - scope holder with locking capacity - Weight: 77g - Protection type: IPX7 (waterproof) - Designed for S181, S165 & S184 only

Reference	Designation / Description
S_067_0004	**22mm Coupler** 22mm coupler - C-mount - scope holder with locking capacity - Weight: 44g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras
S_067_0002	**22mm Coupler Focus ring** 22mm coupler - C-mount - scope holder with locking capacity - with high torque focus ring for Arthroscopy - Weight: 44g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras

Reference	Designation / Description
S_367_0002	**18mm HD Coupler** 18mm HD coupler - C-mount - scope holder with locking capacity - Weight: 54g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras
S_367_0003	**18mm HD Coupler Focus ring** 18mm HD coupler - C-mount - scope holder with locking capacity - with high torque focus ring for Arthroscopy - Weight: 44g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras

Reference	Designation / Description
700337	**Jack to USB adapter** Jack to USB adapter for S184 Camera & SIM software (trial version)

2. VIDEO CAMERAS

ACCESSORIES FOR VIDEO CAMERAS

Reference	Designation / Description
302027	Storz/Olympus Adapter Storz®/Olympus® Adapter for Flexible Scopes

Reference	Designation / Description
302030	Fujinon Adapter Fujinon® Adapter for Flexible Scopes

Reference	Designation / Description
302032	Pentax Adapter Pentax® Adapter for Flexible Scopes

Reference	Designation / Description
700381	USB2 Amplifier USB2 Amplifier 5 meter long for S181 camera

Reference	Designation / Description
009002	Footswitch with jack connector
009009	USB Footswitch Footswitch USB for SOPRO™ Imaging

Reference	Designation / Description
002158	USB extension (0,8m) Small USB extension (0,8m) for S181 camera

icons

Reference	Designation / Description
S_397_1000	Communication kit S397-S640 Communication kit for S397 & S640 (45L & 30L)

Reference	Designation / Description
700694	MEDICAL KEYBOARD QWERTY Medical Keyboard QWERTY - Waterproof IPX7
700695	MEDICAL KEYBOARD AZERTY Medical Keyboard AZERTY - Waterproof IPX7

3
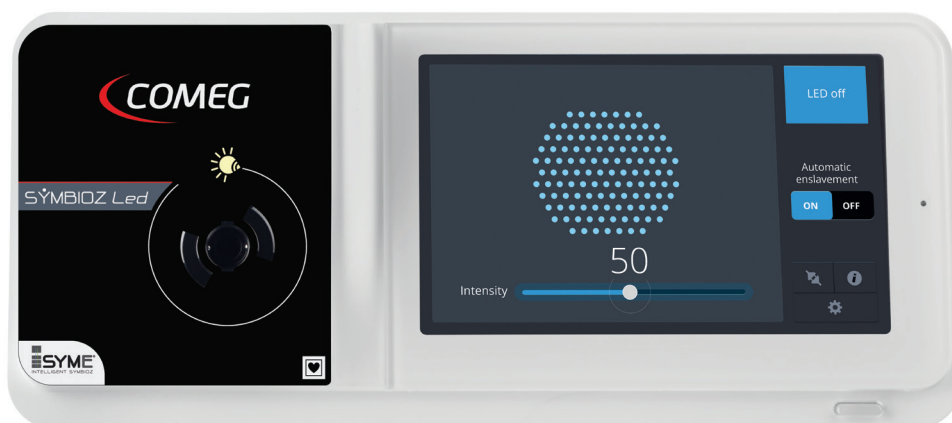
LIGHT SOURCES

LIGHT SOURCES

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Ubilight® is a registered trademark of SOPRO

3. LIGHT SOURCES

300W* LED Light Source

SYMBIOZ Led

SYME
INTELLIGENT SYMBIOZ

Reference	Designation / Description
S_298_0001	SYMBIOZ LED - EU
	SYMBIOZ LED - Light source - EU
S_298_0002	SYMBIOZ LED - US
	SYMBIOZ LED - Light source - US

ECO friendly

* Light intensity equivalent to 300 Watts Xenon Light Source with less power consumption

SPECIFICATION *S_298_0001 & S_298_0002*

- LED technology
- LED lifetime: up to 50.000 hours
- Light intensity equivalent to 300W Xenon light source
- Automatic or manual adjustment of the light intensity
- Color temperature: 6500°K
- Automatic thermal protection system
- Anti-blinding feature with light cable detection
- Standby mode
- Electronic iris
- Power level memory
- Service menu with key information

- 7'' 16/9 touchscreen with intuitive interface
- External control from SYMBIOZ camera head thanks to ISYME concept
- Compatible with Storz® and Olympus® light adapter cables
- Dimensions (W x H x D): 310 x 136 x 385mm
- Weight: 5000 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 230 VAC / 50 - 60Hz
- Power consumption: 160 VA
- 14 languages
- Continuous service

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, CF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -10°C / +40°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric pressure: 800 hPa to 1060 hPa

- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and NF EN ISO 15223-1
- IEC 62471: risk group 1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

LIGHT SOURCES

3. LIGHT SOURCES

XENON LIGHT SOURCES

SOPRO 230

Reference	Designation / Description
S_230_0002	S230 - LIGHT SOURCE - EU S230 - XENON 300W Light source - Storz® Adapter - EU
S_230_0007	S230 - LIGHT SOURCE - EU S230 - XENON 300W Light source - Olympus® Adapter - EU
S_230_0005	S230 - LIGHT SOURCE - US S230 - XENON 300W Light source - Storz® Adapter - US
S_230_0009	S230 - LIGHT SOURCE - US S230 - XENON 300W Light source - Olympus® Adapter - US
Contact us	Wolf® adapter

SOPRO 218

Reference	Designation / Description
S_218_0007	S218 - LIGHT SOURCE - EU S218 - XENON 180W Light source - Storz® Adapter - EU
S_218_0010	S218 - LIGHT SOURCE - EU S218 - XENON 180W Light source - Olympus® Adapter - EU
S_218_0006	S218 - LIGHT SOURCE - US S218 - XENON 180W Light source - Storz® Adapter - US
S_218_0011	S218 - LIGHT SOURCE - US S218 - XENON 180W Light source - Olympus® Adapter - US
Contact us	Wolf® adapter

COMMON SPECIFICATION

S230: S_230_0002, S_230_0007, S_230_0005, S_230_0009
S218: S_218_0007, S_218_0010, S_218_0006, S_218_0011

- Xenon technology
- Bulb lifetime: 500 hours
- Light intensity adjustment with touch buttons
- Infrared filter: the light cable can stay in the light source without any risk of over-heating
- Anti-blinding feature with light cable detection
- Standby button closing mechanical iris to 10% of light intensity

- Light intensity and bulb age displayed on LCD screen
- Easy access to the bulb
- Dimensions (W x H x D): 300 x 311 x 125mm
- Weight: 5000 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 230 VAC / 50 - 60 Hz
- Two Fuses T4A (Marked UL/CSA only)
- Continuous service

DEDICATED SPECIFICATION

	S 230 *S_230_0002* *S_230_0007* *S_230_0005* *S_230_0009*	**S 218** *S_218_0007* *S_218_0010* *S_218_0006* *S_218_0011*
Nominal operating power	300 W	180 W
Color T°	6200°K	5800°K
Power consumption	485VA	450VA

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, CF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 85%
- Transport and storage temperature: -20°C / +45°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa

- Compliant with European directive 93/42/EEC – Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

3. LIGHT SOURCES

180W* LED LIGHT SOURCE

SOPRO
284

Reference	Designation / Description
S_284_0001	**S284 – LIGHT SOURCE EU** S284 – LED light source – EU power cord – Storz® Adapter (Light intensity equivalent to 180W XENON)
S_284_0002	**S284 – LIGHT SOURCE US** S284 – LED light source – US power cord – Storz® Adapter (Light intensity equivalent to 180W XENON)
S_284_0003	**S284 – LIGHT SOURCE OLYMPUS EU** S284 – LED light source – EU power cord – Olympus® Adapter (Light intensity equivalent to 180W XENON)
S_284_0004	**S284 – LIGHT SOURCE OLYMPUS US** S284 – LED light source – US power cord – Olympus® Adapter (Light intensity equivalent to 180W XENON)
Contact us	Adapters

ECO friendly

* Light intensity equivalent to 180 Watts Xenon light source with less power consumption

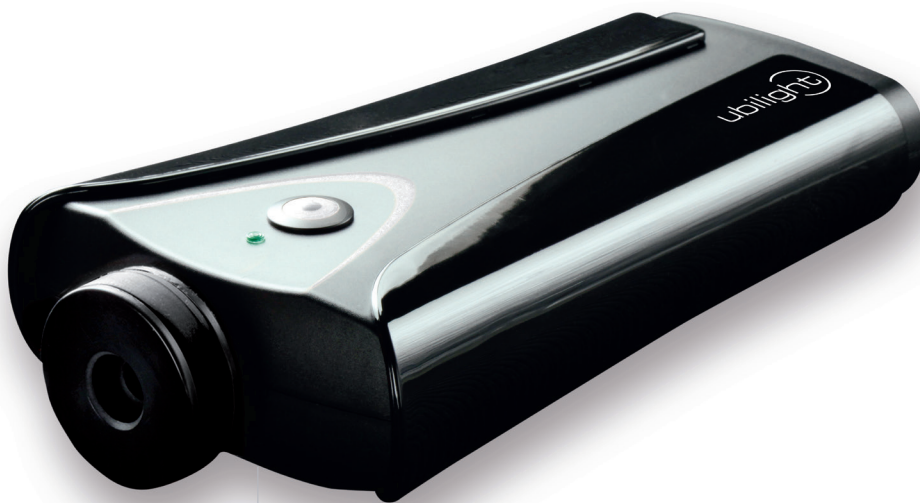# SPECIFICATION *S_284_0001 & S_284_0002 / S_284_0003 & S_284_0004*

- LED technology
- LED lifetime: up to 50.000 hours
- Light intensity equivalent to 180W Xenon light source
- Intuitive adjustment of light intensity
- Color temperature: 6 500°K
- Automatic thermal protection system
- Anti-blinding feature with light cable detection
- Standby mode
- Electronic iris
- Power level memory

- 2.7'' OLED screen
- Compatible with Storz® type light cables (Olympus® in option)
- Dimensions (W x H x D): 300 x 300 x 66mm
- Weight: 2400 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 230 VAC / 50 - 60 Hz
- Power consumption: 140 VA
- T800mA - 250V fuses (Marked UL only)
- Continuous service

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, CF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -10°C / +40°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric pressure: 800 hPa to 1060 hPa

- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and NF EN ISO 15223-1
- IEC 62471: risk group 1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

LIGHT SOURCES

3. LIGHT SOURCES

100 W* LED LIGHT SOURCE

UBIlight

ECO friendly

Reference	Designation / Description
S_281_0002	UBILIGHT - S281 - SOURCE LED UBILIGHT - S281 - LED light source - with external transformer - Storz® adapter by default (Light intensity equivalent to 100W XENON)

Option:

Reference	Designation / Description
402048	OLYMPUS ADAPTER FOR S281 Olympus® light source adapter for S281 Led light source

* Light intensity equivalent to 100 Watts Xenon light source with less power consumption

SPECIFICATION *S_281_0002*

- LED technology
- LED lifetime: up to 50.000 hours
- Light intensity equivalent to 100W Xenon light source
- Intuitive adjustment of light intensity
- Color temperature: > 4500°K
- Automatic thermal protection system
- Anti-blinding feature with light cable detection
- Standby mode
- Power level memory
- Low heat generation

- Compatible with Storz® type light cables (Olympus® optional)
- Dimensions (W x H x D): 180 x 95 x 35mm
- Weight: 320 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 240 VAC / 50 - 60 Hz
- Power consumption: 30 VA
- Transformer: 12V DC
- Continuous service

REGULATORY & ENVIRONMENT

- Electrical safety: Class 2 device, BF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -10°C / +45°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa

- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and NF EN ISO 15223-1
- IEC 62471: risk group 2
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

LIGHT SOURCES

3. LIGHT SOURCES

ACCESSORIES FOR LIGHT SOURCES
Replacement Bulbs

Reference	Designation
006003	300 WATT XENON BULB
006005	180 WATT XENON BULB

LIGHT CABLES

- **Compatible with all light sources and autoclavable at 134°C (273,2°F)**
- Reinforced sheath
- Universal model delivered without connectors

Ø	L.	Reference
4.8mm	3m	S_700382
	2.3m	S_700384
3.5mm*	3m	S_700216
	2.3m	S_700215

*For scope diameter < 4mm

ACCESSORIES FOR LIGHT CABLES
Endoscope side connectors

Reference	Designation / Description
700051	**STORZ ADAPTOR OPTIC SIDE** Connector for universal light cable – endoscope side type Storz®/Olympus®

Reference	Designation / Description
700043	**WOLF ADAPTOR OPTIC SIDE** Connector for universal light cable – endoscope side type Acmi/Stryker®

Reference	Designation / Description
700048	**ACMI/STRYKER ADAPT OPTIC SIDE** Connector for universal light cable – endoscope side type Acmi/Stryker®

Light source side connectors

Reference	Designation / Description
700044	**STORZ ADAPT LIGHT SOURCE SIDE** Connector for universal light cable – light source side type Storz®

Reference	Designation / Description
700045	**OLYMPUS ADAPT LIGHT SOURCE SID** Connector for universal light cable – light source side type Olympus®

Reference	Designation / Description
700046	**WOLF ADAPTOR LIGHT SOURCE SIDE** Connector for universal light cable – light source side type Wolf®/S&N

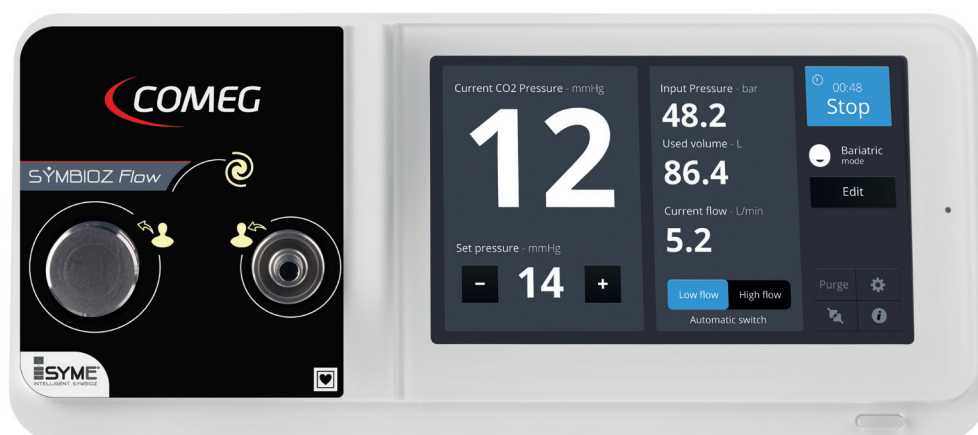| Reference	Designation / Description
700047	**ACMI/STRYKER ADAPT SOURCE SIDE** Connector for universal light cable – light source side type Acmi/Stryker®

LIGHT SOURCES

4

INSUFFLATORS

INSUFFLATORS

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4. INSUFFLATORS

45L/min insufflator

SYMBIOZ *Flow*

Reference	Designation / Description
S_698_0001	SYMBIOZ FLOW INSUFFLATOR - EU SYMBIOZ FLOW - S698 - 45L/min insufflator - EU
S_698_0002	SYMBIOZ FLOW INSUFFLATOR - US SYMBIOZ FLOW - S698 - 45L/min insufflator - US

SPECIFICATION *S_698_0001 & S_698_0002*

- Maximum flow: 45L/min in high flow mode - 2L/min in low flow mode
- Automatic flow rate management according to leakages
- Manual or automatic low flow/high flow switching
- Set cavity pressure: From 0 to 25mmHg (accuracy of 1mmHg)
- 7'' 16/9 touchscreen with intuitive interface displaying: immediate flow, intra-cavity pressure, low cylinder levels, total volume of CO_2 used, chronometer
- Clear messages displayed both on touchscreen and main monitor with sound alarms
- External control from SYMBIOZ camera head thanks to ISYME concept
- External exsufflation valve for over pressure to avoid cross contamination
- Purge feature
- Smooth design for easy disinfection
- Specific setting for Bariatric surgery
- Efficient in low pressures (8-9mmHg)

- Automatic calibration of the device
- Real time display of CO_2 cylinder pressure or central CO_2 supply pressure
- Patented autonomy feature: Displays in minutes the remaining time of insufflation
- Internal pre heating system
- CO_2 gas supply system: US 7/16" connector
- CO_2 gas cylinder compatible (10 to 60 bars)
- CO_2 central gas supply compatible (3 to 5 bars)
- Open-ended spanner intended for CO_2 high-pressure hose connector
- Disposable or reusable tubings
- Dimensions (W x H x D): 310 x 136 x 385mm
- Weight: 8000 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 230 VAC / 50 - 60Hz
- Power consumption: 75 VA
- Two T2.5 AL - 250V delayed action fuses (Marked UR only)
- 14 languages
- Continuous service

INSUFFLATORS

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, CF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -10°C / +45°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa

- Compliant with European directive 93/42/EEC - Class IIa
- Compliant with international standards IEC 60601-1; IEC 60417 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

4. INSUFFLATORS

From 20L/min to 45L/min insufflators

SOPRO
640

icons

Reference	Designation / Description
S_640_4002*	S640 - INSUFFLATOR 45L - EU S640 - Insufflator 45L - With Autonomy feature - EU (German, French, English, Italian, Spanish)
S_640_4004*	S640 - INSUFFLATOR 45L - US S640 - Insufflator 45L - With Autonomy feature - US (German, French, English, Italian, Spanish)
S_640_3005*	S640 - INSUFFLATOR 30L - EU S640 - Insufflator 30L - With Autonomy feature - EU (German, French, English, Italian, Spanish)
S_640_3008*	S640 - INSUFFLATOR 30L - US S640 - Insufflator 30L - With Autonomy feature - US (German, French, English, Italian, Spanish)
S_640_2002*	S640 - INSUFFLATOR 20L - EU S640 - Insufflator 20L - EU (German, French, English, Italian, Spanish)
S_640_2004*	S640 - INSUFFLATOR 20L - US S640 - Insufflator 20L - US (German, French, English, Italian, Spanish)

* Please contact us for versions with languages: German, French, English, Russian, Chinese, Turkish

COMMON SPECIFICATION

- Maximum flow rate in low flow mode: 2L/min
- Automatic flow rate management according to leakages
- Manual or automatic low flow/high flow switching
- Set cavity pressure: From 0 to 25mmHg (accuracy of 1mmHg)
- 5.7-inch LCD screen displaying: immediate flow, intra-cavity pressure, low cylinder levels, total volume of CO_2 used, chronometer
- Clear messages displayed with sound alarms
- Preventive maintenance message
- External exsufflation valve for over pressure to avoid cross contamination
- Purge feature
- Automatic calibration of the device
- Real time display of CO_2 cylinder pressure
- Thumbwheel navigation and validation system
- Internal pre heating system
- CO_2 gas supply system: US 7/16" connector

- CO_2 gas cylinder compatible (10 to 60 bars)
- Open-ended spanner intended for CO_2 high-pressure hose connector
- Disposable or reusable tubings
- Dimensions (W x H x D): 300 x 340 x 145mm
- Weight: 5000 g
- Protection type: IPX0 (not drip-proof)
- Power supply: 100 - 230 VAC / 50 - 60 Hz
- Power consumption: 75 VA
- Two 2,5 AT - 250V time-lag fuses (Marked UR only)
- 5 languages (FR, IT, ES, EN, DEU)
- Continuous service

Option   *45L: S_640_4002 & S_640_4004*
        30L: S_640_3005 & S_640_3008

- Patented autonomy function: display in real time the remaining time of insufflation
- CO_2 central gas supply compatible (3,5 to 4 bars)
- Real time display of central CO_2 supply pressure

INSUFFLATORS

DEDICATED SPECIFICATION

Ref EU Ref US	S 640 45L device S_640_4002 S_640_4004	S 640 30L device S_640_3005 S_640_3008	S 640 20L device S_640_2002 S_640_2004
Maximum flow	45L/min	30L/min	20L/min
Bottle & wall supply	✓	✓	Bottle only
Autonomy feature	✓	✓	
External control via S 397 camera head with S_397_1000 (icons technology)	✓	✓	

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, BF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -10°C / +40°C
- Transport and storage relative humidity: 20% to 85%
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa

- Compliant with European directive 93/42/EEC – Class IIa
- Compliant with international standards IEC 60601-1; IEC 60417 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

4. INSUFFLATORS

● ACCESSORIES

Reference	Designation / Description
607103L	**STERILE INSUFF. TUBING X20** Sterile single use insufflation tubing made of PVC - With CO_2 viral filter (delivered by 20 units) - Price for 1 piece

Reference	Designation / Description
607043L	**REUSABLE INSUFF. TUBING X1** Reusable insufflation tubing - Autoclavable - Without filter (delivered by 1 piece) - Price for 1 piece

Reference	Designation / Description
016006L	**STERILE VIRAL CO_2 FILTER X50** Sterile viral CO_2 filter, single use, 0,027µ. Delivered by pack of 50 pieces - Price for 1 piece

icons

Reference	Designation / Description
S_397_1000	**COMMUNICATION KIT S397-S640** Communication kit for S397 & S640 (45L & 30L)

● CO2 CYLINDER CONNECTION

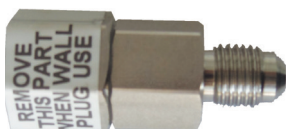| Reference	Designation / Description
017023	**PIN INDEX CONNECTION DIN 477-1** Pin Index connection for DIN 477-1 n°6
017034	**PIN INDEX CONNECTION UNF 7/16** Pin Index connection for UNF 7/16" US

C02 CONNECTION - BOTTLE

Reference	Designation / Description
S_017068L	**FLEXIBLE US7/16-DIN477 FF 2M** Flexible hose for high pressure bottle (60bars) US - DIN 477 FF, n°6, 2 meters FOR EUROPE
S_017036L	**FLEXIBLE US7/16-DIN477 FF 1,25M** Flexible hose for high pressure bottle (60bars) US - DIN 477 FF, n°6, 1,25 meters FOR EUROPE
S_017037L	**FLEXIBLE US-UNF7/16 FF 1M** Flexible hose for high pressure bottle (60bars) US - UNF 7/16, 1 meter FOR USA
Contact	Central gas supply hoses (Max. 7 bars)

C02 CONNECTION - WALL PLUG

Reference	Designation / Description
700364L	**FLEXIBLE BP 7M US 7/16 - AFNOR** Flexible hose for low pressure (< 7 bars) US - AFNOR, 7 meters for Central CO2 supply
700365L	**FLEXIBLE BP 7M US 7/16 - DIN** Flexible hose for low pressure (< 7 bars) US - DIN, 7 meters for Central CO2 supply
700366L	**FLEXIBLE BP 1M US - NIST** Flexible hose for Central CO2 supply (network 10 bars maximum) US - UNF 7/16" 1 meter - NIST
700367L	**FLEXIBLE BP 6M NIST - DIN** Flexible hose for Central CO2 supply (network 10 bars maximum) 6 meters NIST - DIN
700368L	**FLEXIBLE BP 6M NIST - AFNOR** Flexible hose for Central CO2 supply (network 10 bars maximum) 6 meters NIST - AFNOR

Reference	Designation / Description
906054	**EXTERNAL INSUFFLATOR FILTER** External filter 5µm for CO2, to be mounted on the rear panel of the insufflator to filter the CO2 from the bottle

INSUFFLATORS

49

5

FLUID
MANAGEMENT

FLUID MANAGEMENT

* Not for sale in the USA
Manufacturer: WOM, EC medical device of Class IIa & IIb / Distributed by COMEG

5. FLUID MANAGEMENT

MULTI-INDICATION PUMP

C672

- Hysteroscopy
- Laparoscopy
- Urology
- Arthroscopy

Reference	Designation / Description
S_672_0002*	**C672 MULTI-INDICATION PUMP** C672 Multi-indication pump for irrigation and suction - No specialty by default

INNOVATIVE

RESSOURCE SAVING

SIMPLE

Reference	Designation
700721*	TRANSPONDER UROLOGY
700722*	TRANSPONDER ARTHROSCOPY
700723*	TRANSPONDER LAPAROSCOPY
700730*	TRANSPONDER HYSTEROSCOPY

* Not for sale in the USA

SPECIFICATION   *S_672_0002*

- Pressure range:
  - Laparoscopy: not adjustable (3 different speeds)
  - Arthroscopy: 5-150 mmHg
  - Hysteroscopy: 15-150 mmHg
  - Urology: 10-90 mmHg
- Flow range:
  - Laparoscopy: 1.0-1.8 l/min
  - Arthroscopy: 0.1-1.8 l/min
  - Hysteroscopy: 50-500 ml/min
  - Urology: 25-500 ml/min

Accuracy flow +/- 10%

- Suction capacity: Max. 2.0 l/min (depending on instrument characteristics)
- Dimensions (W x H x D): 380 x 148 x 388 mm
- Weight: 6300 g
- Power supply: 100-240 VAC / 50 - 60Hz
- Power consumption: 80 VA
- Max sound level: <80 dB

REGULATORY & ENVIRONMENT

- Electrical safety: class 1 device, BF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 70%
- Transport and storage temperature: -20°C / +60°C
- Transport and storage relative humidity: 5% to 90%
- Operating, storage and transport atmospheric pressure range: 700 hPa to 1 060 hPa

- Compliant with European directive 93/42/EEC - Class IIb
- Compliant with international standards IEC 60601-1; IEC 60417 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous

FLUID MANAGEMENT

5. FLUID MANAGEMENT

LAPAROSCOPY IRRIGATION AND SUCTION PUMP

C673

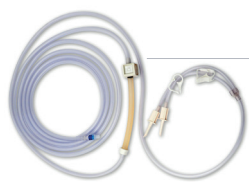| Reference	Designation / Description
S_673_0002	C673 LAPAROSCOPY PUMP C673 Laparoscopic pump for irrigation and suction

SPECIFICATION *S_673_0002*

- Max. pump pressure: 450 mmHg
- Max. irrigation performance: 3.0 l/min
- Max. negative suction pressure: – 60 kPA
- Accuracy flow: ± 10 %
- Dimensions (W x H x D): 380 x 148 x 388 mm

- Weight: 6000 g
- Power supply: 100 - 240V / 50 - 60Hz
- Power consumption: 55 VA
- Max. sound level: < 80 dB

REGULATORY & ENVIRONMENT

- Electrical safety: class 1 device, BF type applied parts
- Operating temperature: +10°C / +40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: –25°C / +55°C
- Transport and storage relative humidity range: 10% to 85%
- Operating, storage and transport atmospheric

pressure: 700 hPa to 1060 hPa
- Compliant with European directive 93/42/EEC – Class IIa
- Compliant with international standards IEC 60601-1 and NF EN ISO 15223-1
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

ACCESSORIES

FLUID MANAGEMENT

Reference	Designation / Description
700720L	**STERILE IRRIGATION TUBES** Tube set RFID for irrigation, disposable, sterile (delivered by 10 units) - Price for 1 piece

Reference	Designation / Description
700719*	**REUSABLE IRRIGATION TUBES** Tube set RFID for irrigation, reuse 20x, no sterile (delivered by 1 piece) - Price for 1 piece

Reference	Designation / Description
700718L	**STERILE SUCTION TUBES** Tube set RFID for suction with 2 connectors, disposable, sterile (delivered by 10 units) - Price for 1 piece

Reference	Designation / Description
700717	**REUSABLE VACUUM TUBES** Tube set for vacuum with filter, no sterile (delivered by 10 units) - Price for 1 piece

Reference	Designation / Description
700268	**SUCTION REGULATOR 200MBAR** Suction regulator, 0 to -200mbar (0 to -150mmHg), maximum flow 20L/min, NF connection, autoclavable bocal 134°C
700269	**BACTERIOLOGICAL FILTERS** Bacteriological filters (100 pieces)

Reference	Designation / Description
700425	**BEMIS CONTAINERS X2** Bemis container - Single use (2 pieces)

Reference	Designation / Description
700724	**DIGITAL BOTTLE SCALE** Digital bottle scale (for C672 & C673)

Reference	Designation / Description
700424	**COIL OF WIRE BEMIS CONTAINER** Coil wire for Bemis container

* Not for sale in the USA

6

MONITORS

MONITORS
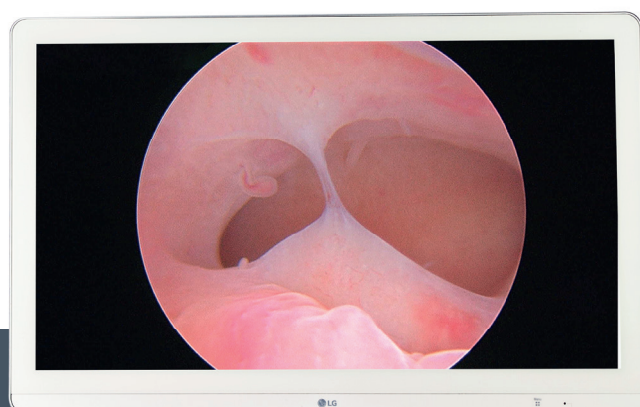
6. MONITORS

OPERATING ROOM

Monitor 27'' Full HD
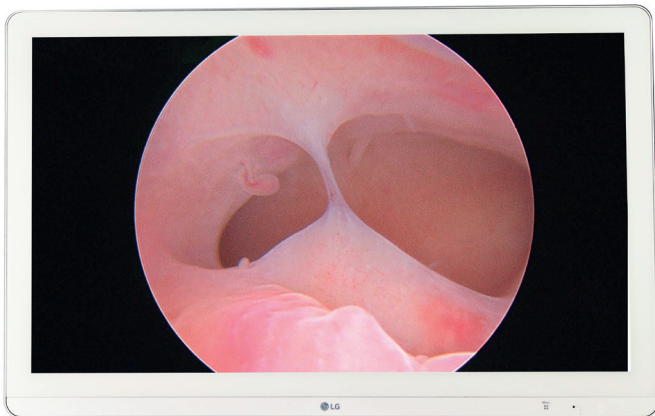
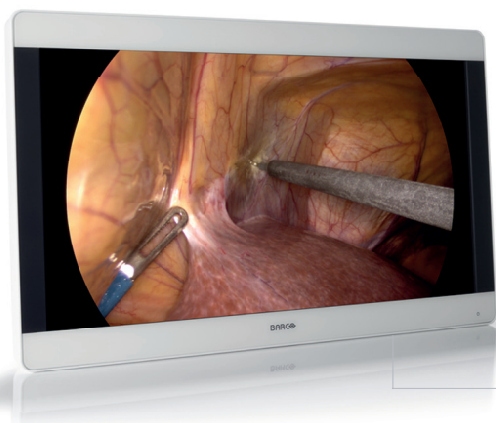| Reference	Designation / Description
S_700794	LG MONITOR FULL HD 27'' LG® Medical monitor Full HD 27''

SPECIFICATION *S_700794*

- Panel: 27" - TFT AM LCD / IPS-PRO technology / LED backlight
- Resolution: Full HD 1920 x 1080 pixels
- Luminance: 1000cd/m2
- Contrast ratio: 1000:1
- Viewing Angle (H/V): 178° / 178°
- Aspect ratio: 16:9
- Colors: 1073 million (10-bit) / SRGB 115% (Deep Red)

- Video inputs: 1 x HDMI (1.4), 1 x S-Video, 1 x Composite, 1 x 3G-SDI, 1 x DVI-I (Compatible avec D-sub & Component via adapteur)
- Video outputs: 1 x 3G-SDI, 1 x DVI-D
- Mounting: 100x100 mm VESA
- Dimensions (W x H x D): 656,4 x 412,9 x 62,2 mm
- Weight: 7 700 g
- Power supply: 100 - 240 VAC / 50 - 60 Hz

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, no applied parts
- Operating temperature: +0°C / +40°C
- Operating relative humidity: 0% to 80%
- Transport and storage temperature: -20°C / +60°C
- Transport and storage relative humidity: 0% to 85%
- Protection type: IP32 (IP35 front side only)
- ANSI/AAMI ES 60601-1

- CAN/CSA-C22.2 No. 60601-1
- IEC 60601-1
- EN 60601-1
- Green compliance: ROHS-2, REACH, WEEE
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

OPERATING ROOM

Monitor 31''
4K

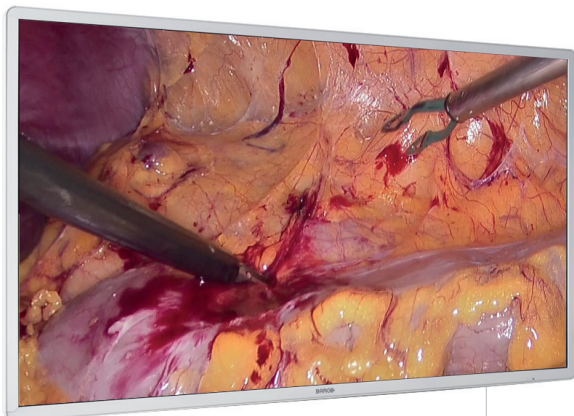| Reference	Designation / Description
S_700711	BARCO 4K 31'' MONITOR Medical grade monitor BARCO® 4K 31''

SPECIFICATION *S_700711*

- Panel: 31" - TFT AM LCD / IPS-PRO technology / LED backlight
- Resolution: 4K-2K (4096 x 2160 pixels)
- Luminance: Max 550 cd/m²
- Contrast ratio: 1400:1
- Viewing Angle (H/V): 178° / 178°
- Aspect ratio: 17:9
- Colors: 1073 million (10-bit)
- Video inputs: 4K-UHD input selectable, FHD inputs (upscaled to UHD): 1x DVI, 1x 3G-SDI
- Video outputs: 1x 3G-SDI, 1x DVI
- Mounting: 100x100 & 200x100 mm VESA
- Dimensions (W x H x D): 777 x 472 x 93 mm
- Weight: 12100 g
- Power supply: 100 - 250 VAC / 47 - 63 Hz
- Protection type: IP20 (IP45 front side only)

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, no applied parts
- Operating temperature: +0°C / +35°C
- Operating relative humidity: 10% to 85%
- Transport and storage temperature: -20°C / +50°C
- Transport and storage relative humidity: 5% to 85%
- ANSI/AAMI ES 60601-1:2005/(R)2012 and A1:2012, C1:2009/(R)2012 and A2:2010/(R)2012 - Part 1
- CAN/CSA-C22.2 No. 60601-1: 14 Part 1
- IEC 60601-1: 2012 Edition 3.1 Part 1
- EN 60601-1: 2006 + A1:2013 Part 1
- Electromagnetic Compatibility: EMC Medical EMC Standards: IEC60601-1-2, EN55011 /CISPR 11, FCC CFR47 part 15 & 18/Class B
- Approvals/Marking: CE, c-UL-us, DEMKO
- Green compliance: ROHS-2, REACH, WEEE
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

6. MONITORS

OPERATING ROOM

Monitor 55''
4K

Reference	Designation / Description
S_700732	BARCO 4K 55'' MONITOR Medical grade monitor BARCO® 4K 55''

SPECIFICATION *S_700427*

- Panel: 55" - TFT AM LCD / IPS technology / LED backlight
- Resolution: 4K 3840 x 2160 pixels
- Luminance: 500 cd/m2
- Contrast ratio: 1100:1 (max.)
- Aspect ratio: 16:9
- Colors: 1073 million (10-bit)
- Response speed: 8ms
- Video inputs: 4K-UHD input selectable among:
1x DP 1.1 up to 3840 x 2160 @30Hz; 2x DP 1.1 up to 1920 x 2160 @50Hz/60Hz; 1x DP 1.2 MST up to 3840 x

2160 @50Hz/60Hz
FHD input (upscaled to UHD): 1x DVI; 1x 3G-SDI
- Video outputs: 1 x DVI-D, 1 x 3G-SDI
- OSD languages: EN / ES / IT / GE / FR
- Mounting: 200x200 & 600x200 mm VESA
- Dimensions (W x H x D): 1260 x 734 x 87 mm
- Weight: 24 600 g-
- Protection type: IP20 (IP45 front side only)
- Power supply: 100 - 240 VAC / 50 - 60 Hz
- Power consumption: 110 VA

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device, no applied parts
- Operating temperature: +0°C / +35°C
- Operating relative humidity: 10% to 90%
- Transport and storage temperature: -20°C / +60°C
- Transport and storage relative humidity: 5% to 90%
- ANSI/AAMI ES 60601-1:2005/(R)2012 Part 1
- CAN/CSA-C22.2 No. 60601-1: 14 Part 1
- IEC 60601-1: 2012 Edition 3.1 Part 1

- EN 60601-1: 2006 + A1:2013 Part 1
- Electromagnetic Compatibility: EMC Medical EMC Standards: IEC60601-1-2 (4th Ed.), EN55011 /CISPR 11, FCC CFR47 part 15 & 18/Class B
- Approvals/Marking: CE, c-UL-us, DEMKO
- Green compliance: ROHS-2, REACH, WEEE
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

OPERATING ROOM

Monitor 24''
Full HD

Reference	Designation / Description
S_700712	**NEOVO 24'' MONITOR** Medical grade monitor AG NEOVO® 24" (input/output 3G-SDI / HX-24) - Black color

SPECIFICATION *S_700712*

- Panel: 23,6" - LED-Backlit TFT LCD (VA Panel)
- Resolution: FHD 1920 x 1080 pixels
- Luminance: 250 cd/m2
- Contrast ratio: 3,000 : 1
- Viewing Angle (H/V): 178°/178°
- Colors: 16,7 millions
- Response speed: 5 ms
- Video inputs: 1x VGA, 1x DVI, 1x HDMI, 1x SDI, 1x CVBS
- Video outputs: 1x SDI, 1x CVBS

- OSD languages: EN / ES / IT / PY / DE / FR / RO / PL / CS / NL / JA / CH
- Mounting: VESA 100/75mm
- Dimensions (W x H x D): 562 x 397 x 155 mm
- Weight: 7700 g
- Power supply: 100 - 240 VAC / 50 - 60 Hz
- Power consumption: < 27 VA
- Delivered with CD ROM (user manual), power cord, power adaptor, 15-Pin D-Sub cable, audio cable

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device - no applied parts
- Operating temperature: +0°C / +40°C
- Operating relative humidity: 10% to 90%
- Transport and storage temperature: -20°C / +60°C
- Transport and storage relative humidity: 5% to 95%

- Compliant with European directive 93/42/EEC - Class I
- Certification & Compliance: CB, CE, RoHs, GOST-R, WEEE, REACH
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

6. MONITORS

OPERATING ROOM

Monitor 21,5''
Full HD

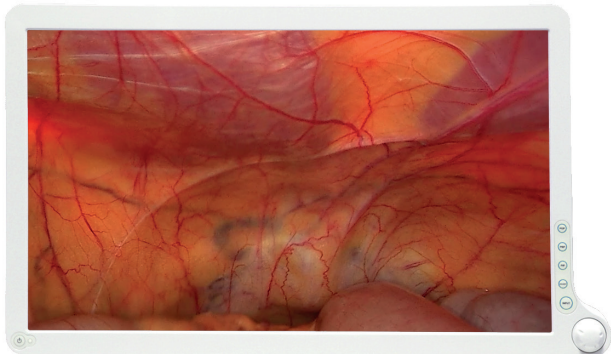| Reference	Designation / Description
S_700713	NEOVO FULL HD 21,5'' MONITOR Diagnostic monitor AG NEOVO® 22" – Full HD – White color

SPECIFICATION *S_700713*

- Panel: 21,5" – LED-backlit TFT LCD
- Resolution: FHD 1920 x 1080 pixels
- Luminance: 250 cd/m2
- Contrast Ratio: 1,000 : 1
- Viewing Angle (H/V): 170°/160°
- Colors: approx. 16,7 millions
- Response speed: 3 ms
- Video inputs: 1x HDMI, 1x VGA, 1x DVI, 2x CVBS, 1x S-Video
- Video outputs: 2x CVBS, 1x DC Output

- OSD languages: EN / ES / IT / PY / DE / FR / RO / PL / CS / NL / JA / CH
- Mounting: VESA 75/100mm
- Dimensions (W x H x D): 513 x 369 x 155 mm
- Weight: 6900 g
- Power supply: 100 - 240 VAC / 50 - 75Hz
- Power consumption: < 34,5 VA
- Delivered with CD ROM (user manual), power cord, power adaptor, 15-Pin D-Sub cable, audio cable

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device - no applied parts
- Operating temperature: +0°C / +40°C
- Operating relative humidity: 10% to 90%
- Transport and storage temperature: -20°C / +60°C
- Transport and storage relative humidity: 5% to 95%

- Compliant with European directive 93/42/EEC - Class I
- Certifications & Compliance: FCC, CB, CE, BSMI, RoHs, WEEE, REACH, CCC, CEL, GOST-R
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

CONSULTING ROOM

Monitor 21,5''
Full HD

Reference	Designation / Description
S_700653	BARCO HD 21,5'' MONITOR BARCO® Medical grade surgical display HD 21,5"

SPECIFICATION *S_700653*

- Panel: 21,5" - TFT AM LCD technology
- Resolution: 1920 x 1080 pixels
- Luminance: 250 cd/m2
- Contrast ratio: 1000:1
- Viewing Angle: 178°
- Aspect ratio: 16:9
- Colors: 16,7 millions
- Video inputs: 2x DVI-I, 1 x VGA, 1 x RGB, 1 x S-video, 1 x Comp, 1 x 3G-SDI

- Video outputs: 1x SDI, 1 x S-video, 1 x Comp, 1 x RGB
- Mounting: VESA 100mm
- Dimensions (W x H x D): 523 x 321 x 110mm
- Weight: 5460 g
- Protection type: IP23
- Power supply: 100 - 240 VAC / 50 - 60 Hz
- Power consumption: 50 VA
- Delivered without desktop stand

REGULATORY & ENVIRONMENT

- Electrical safety: Class 1 device - no applied parts
- Operating temperature: +0°C / +35°C
- Operating relative humidity: 20% to 80%
- Transport and storage temperature: -20°C / +60°C
- Transport and storage relative humidity: 10% to 85%
- Compliant with European directive 93/42/EEC - Class I
- Compliant with international standard:
    - FDA & EC: Endoscopic and Surgical imaging (Class I)

- Safety: UL (UL60601-1), cUL (CAN/CSA-C22.2 No.6011-M90), CE (EN60601-1), AS/NZS 3200-1-0. CCC (GB4943-2001), CB-ITE (IEC60950-1)
- EMC: FCC (Part Class B), CE (EN60601-1-2), AS/NZS 3200-1-2, VCCI (Class B), CCC (GB9254, GB17625.1)
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide

6. MONITORS

ACCESSORIES

Reference	Designation / Description
700057	**DESKTOP STAND FOR MONITOR** Desktop stand for monitor with VESA mounting

Reference	Designation / Description
700320	**EXTENSION CABLE ALIM. MASTER** Extension cable for SYMBIOZ Master 2.5M (to be used with long arm medical cart)

Reference	Designation / Description
700376	**EXTENSION CABLE ALIM. BARCO** Extension cable alimentation for BARCO® monitor (to be used with long arm medical cart)

Reference	Designation / Description
703003	**POWER SUPPLY AG NEOVO MONITOR** Medical-grade power supply for AG Neovo® monitors

MONITORS

7

COMMUNICATION & ARCHIVING SYSTEMS

COMMUNICATION & ARCHIVING SYSTEMS

* Not for sale in the USA

7. COMMUNICATION & ARCHIVING SYSTEMS

COMMUNICATION SYSTEM

SYMBIOZ Master

ISYME
INTELLIGENT SYMBIOZ
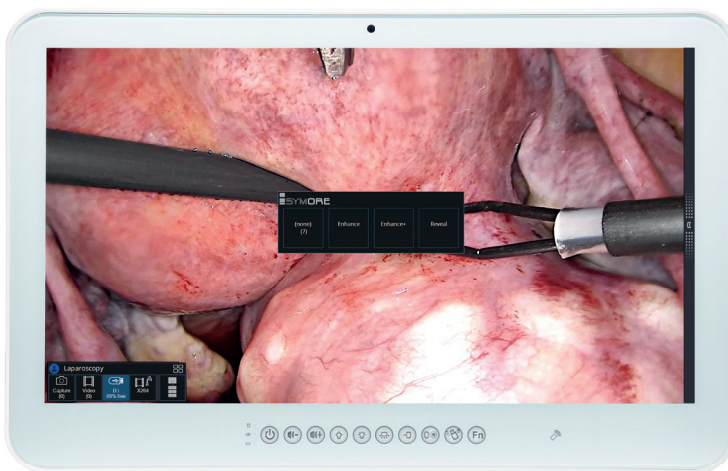
Reference	Designation / Description
S_098_0002	**SYMBIOZ MASTER** SYMBIOZ MASTER ISYMORE - Intuitive communication system (DICOM ready)
S_098_0003	**SYMBIOZ MASTER + STREAMING** SYMBIOZ MASTER ISYMORE - Intuitive communication system (DICOM ready) + STREAMING
S_998611	**DICOM LICENSE** DICOM license alone

ISYMORE
IMAGE ENHANCEMENT

ISYMORE is a chromatic image enhancement technology developed to improve anatomical vascularization visualization.

SPECIFICATION *S_098_0002 / S_098_0003*

- Panel: 24'' TFT LCD touch screen technology
- Resolution: 1920 x 1080 pixels
- Luminance: 250 cd/m2
- Contrast ratio: 3000:1
- Intel Core i7 processor
- 8GB RAM
- 320GB HDD
- Chromatic image enhancement (ISYMORE)
- Remote software included to remote control and get feedback from SYMBIOZ Cam, SYMBIOZ Led and SYMBIOZ Flow
- Imaging software to record Full HD images and video and manage a patient database

- S_098_0003: SYMBIOZ Master with DICOM & STREAMING
- S_098_0006: SYMBIOZ Master with STREAMING

- Reports edition and personalization
- Video inputs/outputs: 4x USB 3.0, 2x USB 2.0, 1x RS232, 1x RS232/422/485, 2x RJ45, 2x 3.5mm jack connectors, 2x DP video outputs, 1x DVI-D video input, 1x DC-in jack, 2x 5W speaker
- Mounting: VESA 75/100mm
- Dimensions (W x H x D): 606 x 398 x 65.6mm
- Weight: 9000 g
- Protection: IPX1
- Power supply: 100 - 240 VAC / DC 12V / 50 - 60 Hz
- Power consumption: 106 VA

REGULATORY & ENVIRONMENT

- Operating temperature: +0°C / +40°C
- Operating relative humidity: 10% to 90%
- Transport and storage temperature: -20°C / +60°C
- Transport and storage relative humidity: 10% to 90%
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa
- Compliant with European directive 93/42/EEC - Class I

- Compliant with international standards: FCC; CE / VCCI Class B; cULus Mark / UL60601-1; EN 60601-1 approved / ISO 14971 / IEC 62133; Energy star 6.1 compliance
- Not suitable for use in the presence of a flammable anaesthetic with air or oxygen or nitrous oxide
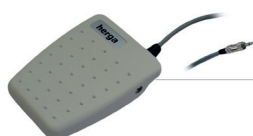
COMMUNICATION & ARCHIVING SYSTEMS

7. COMMUNICATION & ARCHIVING SYSTEMS

MEDICAL RECORDERS

USB medical recorder

USB 200

Reference	Designation / Description
S_700091*	M-USB 200 - RECORDER M-USB 200 for videos and still images recording

Reference	Designation
009002	FOOTSWITCH WITH JACK CONNECTOR

SPECIFICATION *S_700091*

- LCD monitor: 2x 1/2" full color
- Recording resolution: from 1280 x 1024 to 640 x 480 pixels
- Buttons: Sealed membrane, fluid resistant
- Video/Audio inputs/outputs: 1x S-video, 1x Comp for both input & output, 2x 3.5mm stereo phone jack
- USB support: USB 2.0 high speed (1 front, 3 rear)
- Footswitch: Hands-free capture - standard 3.5mm mini jack

- Medias: USB flash drives or external USB hard drive
- Image formats: JPEG, TIFF, PNG, DICOM
- Images sizes: 1024 x 768; 800 x 600; 640 x 480 pixels
- Video formats: MPEG2 (DVD quality) (PAL/NTSC format)
- Dimensions (W x H x D): 240 x 200 x 63mm
- Weight: 1700 g
- Power supply: 100 - 240 VAC / 50 - 60Hz

REGULATORY & ENVIRONMENT

- Operating temperature: -20°C / +40°C
- Transport and storage temperature: -40°C / +85°C
- Compliant with European directive: 93/42/EEC, Class I

- Compliant with international standards: IEC 60601-1; E361228; PSE; GOST-R; FCC Rules part 15; RoHS compliant

* Not for sale in the USA

MEDICAL RECORDERS

USB medical recorder
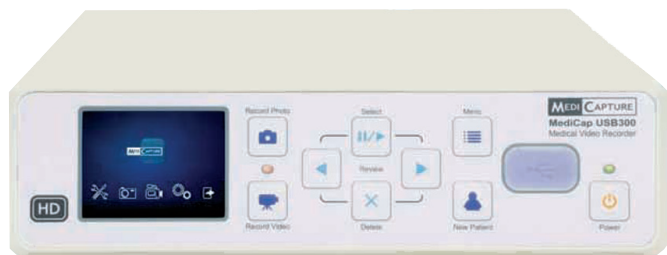
USB 300

Reference	Designation / Description
S_700211*	**M-USB 300 - RECORDER** M-USB 300 for Full HD videos and still images recording

Reference	Designation
009002	FOOTSWITCH WITH JACK CONNECTOR

SPECIFICATION *S_700211*

- LCD monitor: 2x 1/2" full color
- Recording resolution: from 1920 x 1080 to 640 x 480 pixels
- Buttons: Sealed membrane, fluid resistant
- Video outputs: 1x DVI, VGA via adapter
- Video inputs: 1x DVI, 1x HD-SDI, 1x S-video, 1x comp, 1x RJ45, RGB via adapter
- Storage: internal 1TB hard drive, external USB 3.0 drives, network drives

- Footswitch: Hands-free capture - standard 3.5mm mini jack
- Image formats: JPEG, TIFF, BMP, DICOM
- Video formats: H.264 / MPEG4 (PAL/NTSC format)
- Dimensions (W x H x D): 240 x 211 x 63mm
- Weight: 1800 g
- Power supply: 100 - 240 VAC / 50 - 60Hz
- 1 A - 250 V fuses

REGULATORY & ENVIRONMENT

- Operating temperature: -20°C / +40°C
- Operating relative humidity: 30% to 75%
- Transport and storage temperature: -40°C / +85°C
- Transport and storage relative humidity: 0% to 93%
- Operating, storage and transport atmospheric pressure: 700 hPa to 1060 hPa

- Compliant with European directive: 93/42/EEC - Class I
- Compliant with international standards: IEC 60601-1; E361228; PSE; GOST-R; FCC Rules part 15; RoHS compliant

COMMUNICATION & ARCHIVING SYSTEMS

* Not for sale in the USA

7. COMMUNICATION & ARCHIVING SYSTEMS

MEDICAL RECORDERS

Medical grade DVD recorder

Reference	Designation
700651	SONY DVD HD RECORDER

SPECIFICATION *700651*

- Recording resolution: 1280 x 720 pixels, 720 x 480i
- Recording Format: AVCHD, MPEG4
- Simultaneous recording internal HDD and external media
- Storage: USB drives, network drives, internal 500GB hard drive
- Video inputs: 1x DVI-D, 1x HDMI, 1x S-Video, 1x comp + audio
- Video outputs: 1x DVI-D, 1x HDMI, 1x S-Video, 1x comp + audio
- Dimensions (W x H x D): 212.0 × 105.5 × 290mm
- Weight: 3200 g
- Power supply: 100 - 240 VAC / 50 - 60Hz
- Power Consumption: 42 VA / 12 - 24 VDC

REGULATORY & ENVIRONMENT

- Operating temperature: +5°C / +40°C
- Operating relative humidity: 20% to 80%
- Transport and storage temperature: -20°C / +60°C
- Transport and storage relative humidity: 20% to 90%
- Operating, transport and storage atmospheric pressure: 700 hPa to 1060 hPa
- Compliant with European directive: 93/42/EEC - Class I
- Compliant with international standards: EN55022 : 2010 Class B, EN 55024 : 2010; EN 60601-1-2: 2007; EN 60601-1: 2006 RoHS
- Product safety standards for United States, Canada and Europe

COMMUNICATION & ARCHIVING SYSTEMS

7. COMMUNICATION & ARCHIVING SYSTEMS

MEDICAL PRINTER

Reference	Designation / Description
S_700262	SONY PRINTER SONY® printer UP 25 MD HD

SPECIFICATION *S_700262*

- Printing method: Transfer by thermal sublimation
- Resolution: 2 132 x 1 600 pixels - 423 dpi
- Print speed: 29 seconds
- TV coding system: PAL / NTSC
- HDTV IN/OUT: 1080i/59.94i, 1080/50i (2:1 interlaced) 720/59.94p, 720/50p (progressive)
- Paper tray size: Max. 50 sheets
- Interface: RGB/U/Pb/Pr (BNC) (x3): 0.7 Vc-c, Sync. On green: 0.3 Vc-c, Sync. Negative, SYNC (BNC) (x1): 0.3 to 4 Vc-c, sync. Negative, S Video (4 pin mini DIN) (x1): Y: 1 Vc-c. Sync. Negative, C: 0.286 Vc-c (NTSC), 0.3 Vc-c (PAL), Video (BNC) (x1): 1 Vc-c, sync. Negative
- Dimensions (W x H x D): 212 x 98 x 398mm
- Weight: 5700 g
- Power supply: 100-240 VAC / 50 -60Hz

REGULATORY & ENVIRONMENT

- Operating temperature: 5°C to 35°C
- Oparating humidity: 20% to 80%
- Transport and storage temperature: -20°C to 60°C
- Transport and storage relative humidity: 20% to 80%
- Compliant with international standards: (US/CA) UL 60601-1; UL 60950-1; CSA C22.2 No.601.1; CSA C22.2 No.60950-1; (EU) EN 60601-1-1; EN 55022 (Classe B); EN 55024; EN 61000-3-2; EN 61000-3-3; (AU) EN55022 Class B; (JP) VCCI Class A; JIS C 61000-3-2; CE: MDD; EMC; LVD

MEDICAL PRINTER

Reference	Designation / Description
700076	**PRINT PACK** A6 large size color print pack (200 sheets & 4 color ink ribbons)for S_700262 - Delivered by 6 pieces - Model: UPC-21L

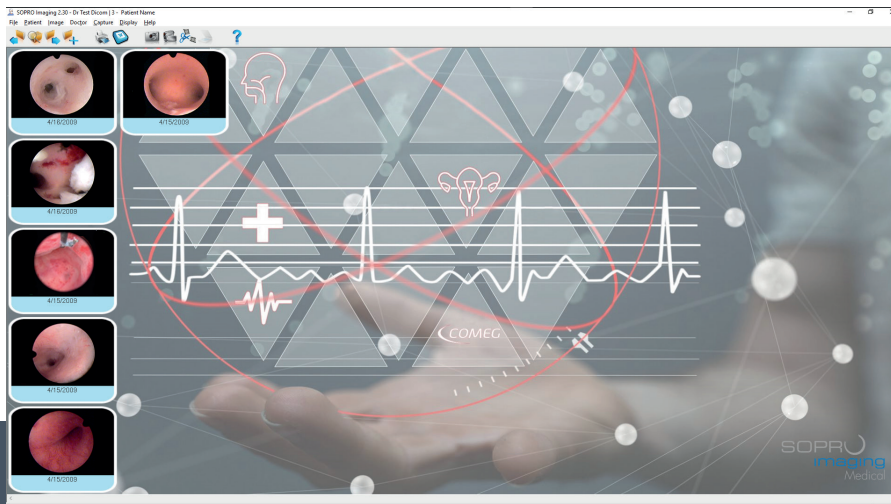# SPECIFICATION *700076*

• Format: A6
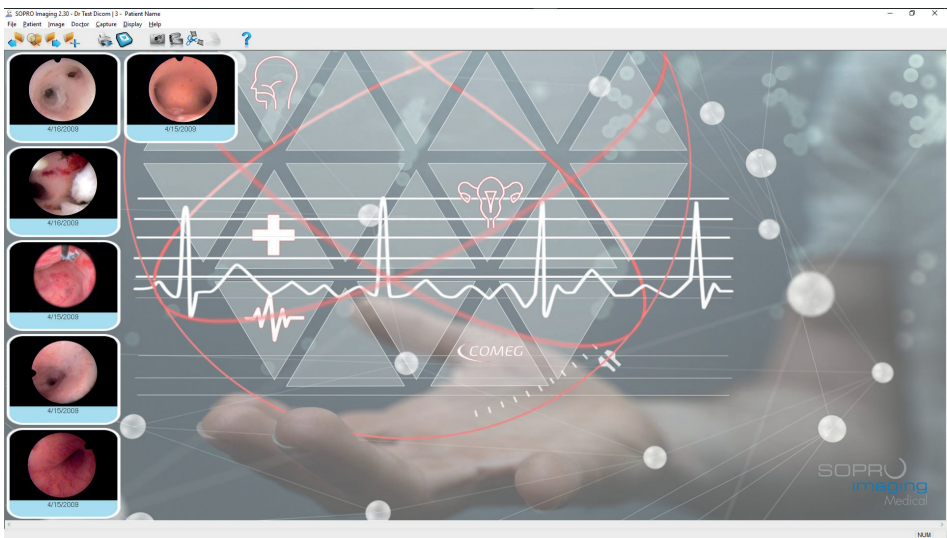
• Consumable Format: 144 x 100mm

8

IMAGING
SOFTWARE

IMAGING SOFTWARE

SOPRO™ is an unregistered trademark of SOPRO

8. IMAGING SOFTWARE

MEDICAL IMAGING SOFTWARE

Reference	Designation / Description
505026	**SOPRO IMAGING MEDICAL LICENSE** SOPRO™ Medical Imaging (SIM) License
990145	**SOPRO IMAGING MEDICAL CD-ROM** CD-ROM: SOPRO™ Medical Imaging software

SOPRO™ is an unregistered trademark of SOPRO

SPECIFICATION *505026 & 990145*

SOPRO™ Medical Imaging software constitutes a complete database of all your patients. A wide range of ergonomic and high-performance tools:

- Capture of images or video sequences,
- Photo/video annotation,
- Editing and personalization of medical reports,

- Simple and intuitive video editing,
- Audio recording,
- Data security.

CONFIGURATION

WINDOWS® MINIMUM REQUIRED CONFIGURATION

- Operating system: Windows® 7 Pro sP1
- Processor: Intel® core i5
- RAM: 4GB or more
- Hard disk: 500GB or more / 7200 rpm
- USB ports: 2 USB 2.0 Hi-Speed ports
- Graphic card: Chipset Nvidia® or ATI®
- 256MB unshared memory compatible DirectX 9
- USB Chipset: Intel® or NEC® / RENESAS®
- Screen resolution: 1280 x 1024 or more

WINDOWS® RECOMMENDED CONFIGURATION

- Operating system: Windows® 10 Pro SP1
- Processor: Intel® Core i5
- RAM: 8GB or more
- Hard disk: 1TB or more / 7 200 rpm
- USB ports: 4 USB 2.0 Hi-Speed ports
- Graphic card: Chipset Nvidia® or ATI®
- 512MB unshared memory compatible DirectX 9
- USB Chipset: Intel® or NEC® / RENESAS®
- Screen resolution: 1280 x 1024 or more

ACCESSORIES

Reference	Designation / Description
700694	**MEDICAL KEYBOARD QWERTY** Medical Keyboard QWERTY - Waterproof IPX7
700695	**MEDICAL KEYBOARD AZERTY** Medical Keyboard AZERTY - Waterproof IPX7

Reference	Designation / Description
S_098_0001	**PANEL PC & SOPRO IMAGING** Touch screen - Delivered with SOPRO™ Medical Imaging software and license

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* See pages SYMBIOZ Master specification (section 7) for more information about the panel PC

IMAGING SOFTWARE

9

MEDICAL CARTS

MEDICAL CARTS

Manufacturer: Jansen, EC medical device of Class I / Distributed by COMEG

9. MEDICAL CARTS

OPERATING ROOM

Premium carts

Premium & short arm
- 3x Adjustable shelves
- 1x Camera head holder
- 1x CO_2 cylinder holder
- 1x Drawer
- 1x Long arm on central pivot
- 1x Short arm on central pivot
- 1x 5m Power Cord
- 7x 60cm connection power cables
- 4x Castor wheels (2 with brake)

Reference	Designation / Description
S_700598	PREMIUM CART WITH 2 ARMS - EU Premium medical cart with two articulating arms (one long and one short) - EU
S_700624	PREM CART 2 ARMS WITH TRANF EU Premium medical cart with two articulating arms (one long and one short) + Transformer - EU
S_700678	PREMIUM CART WITH 2 ARMS - US Premium medical cart with two articulating arms (one long and one short) - US
S_700682	PREM CART 2 ARMS WITH TRANF US Premium medical cart with two articulating arms (one long and one short) - Transformer - US
S_700686	PREMIUM CART WITH 2 ARMS - UK Premium medical cart with two articulating arms (one long and one short) - UK
S_700690	PREM CART 2 ARMS WITH TRANF UK Premium medical cart with two articulating arms (one long and one short) - Transformer - UK

OPERATING ROOM

Premium

- 3x Adjustable shelves
- 1x Camera holder
- 1x CO$_2$ cylinder holder
- 1x Drawer
- 1x Long arm on central pivot
- 1x 5m Power Cord
- 7x 60cm connection power cables
- 4x Castor wheels (2 with brake)

Reference	Designation / Description
S_700597	PREMIUM CART WITH 1 ARM - EU Premium medical cart with one long arm - EU
S_700625	PREM CART 1 ARM WITH TRANF EU Premium medical cart with one long arm + Transformer - EU
S_700679	PREMIUM CART WITH 1 ARM - US Premium medical cart with one long arm - US
S_700683	PREM CART 1 ARM WITH TRANF US Premium medical cart with one long arm + Transformer - US
S_700687	PREMIUM CART WITH 1 ARM - UK Premium medical cart with one long arm - UK
S_700691	PREM CART 1 ARM WITH TRANF UK Premium medical cart with one long arm + Transformer - UK

9. MEDICAL CARTS

OPERATING ROOM

Basic carts

Basic & short arm
- 3x Adjustable shelves
- 1x Camera head holder
- 1x CO_2 cylinder holder
- 1x Drawer
- 1 x Articulated short arm
- 1x Fixed mount for flat panel
- 1x 5m Power Cord
- 7x 60cm connection power cables
- 4x Castor wheels (2 with brake)

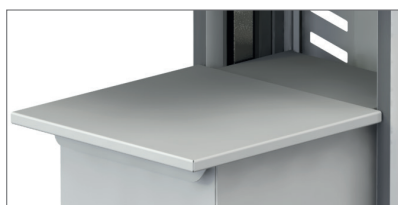| Reference	Designation / Description
S_700596	CART FIXED SCREEN + ARM - EU Basic medical cart with fixed screen and short articulating arm - EU
S_700627	CART FIXED SCREEN+ARM+TRANS EU Basic medical cart with fixed screen and short articulating arm + Transformer - EU
S_700680	CART FIXED SCREEN + ARM - US Basic medical cart with fixed screen and short articulating arm - US
S_700684	CART FIXED SCREEN+ARM+TRANS US Basic medical cart with fixed screen and short articulating arm + Transformer - US
S_700688	CART FIXED SCREEN + ARM - UK Basic medical cart with fixed screen and short articulating arm - UK
S_700692	CART FIXED SCREEN+ARM+TRANS UK Basic medical cart with fixed screen and short articulating arm + Transformer - UK

OPERATING ROOM

Basic

- 3x Adjustable shelves
- 1x Camera head holder
- 1x CO_2 cylinder holder
- 1x Drawer
- 1x Fixed mount for flat panel
- 1x 5m Power Cord
- 7x 60cm connection power cables
- 4x Castor wheels (2 with brake)

Reference	Designation / Description
S_700595	BASIC CART FIXED SCREEN - EU Basic medical cart with fixed screen - EU
S_700628	CART FIXED SCREEN+TRANSF - EU Basic medical cart with fixed screen + Transformer - EU
S_700681	BASIC CART FIXED SCREEN - US Basic medical cart with fixed screen - US
S_700685	CART FIXED SCREEN+TRANSF - US Basic medical cart with fixed screen + Transformer - US
S_700689	BASIC CART FIXED SCREEN - UK Basic medical cart with fixed screen - UK
S_700693	CART FIXED SCREEN+TRANSF - UK Basic medical cart with fixed screen + Transformer - UK

9. MEDICAL CARTS

ACCESSORIES

Reference	Designation / Description
700796	**EXTRA SHELF FOR PUMP** Extra shelf on trolley's drawer for multi indication pump

Reference	Designation / Description
700359	**PULL-OUT SHELF FOR KEYBOARD** Pull-out shelf 320 x 450mm for keyboard

Reference	Designation
700621	CAMERA HOLDER STAINLESS STEEL

Reference	Designation
700622	CAMERA HOLDER STAINLESS STEEL

Reference	Designation / Description
700619	**BOTTLE HOLDER Ø140MM** CO2 cylinder holder Ø140mm (rear side cart)

Reference	Designation
700317	EXTRA SHELF 320X450MM
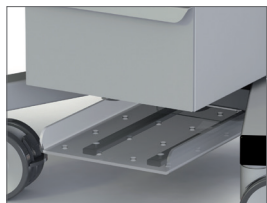
Reference	Designation / Description
700361	FOOTSWITCH HOLDER
	Foot switch panel for undercarriage

Reference	Designation / Description
700618	FLEXIBLE SCOPE HOLDER
	Flexible scope holder (fixed on the side)
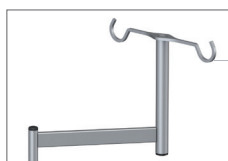
Reference	Designation / Description
700617	SERUM HOLDER
	Serum holder (fixed on the side)

Reference	Designation / Description
700309	POWER CORDE 60CM
	Serum holder (fixed on the side)

Reference	Designation
700616	EQP CONNECTION LEAD 60CM

9. MEDICAL CARTS

CONSULTING ROOM

Ubicart

CUSTOMABLE

Ubicart

- Shelf 460 x 435 mm
- 4 way Power strips
- Standard mount (VESA 75/100 mm)
- 2 x 1 m Power cords
- 2 x 2 m Power cords

	100cm	150cm
Ubicart – EU	S_700362	S_700791
Ubicart – EU with isolation transformer	S_700418	S_700793
Ubicart – UK	S_700726	S_700792
Ubicart – UK with isolation transformer	S_700727	S_700797
Ubicart – US	S_700728	S_700798
Ubicart – US with isolation transformer	S_700729	/

UBICART ACCESSORIES

Reference	Designation / Description
700704	UBICART OPTIONAL EXTRA SHELF Extra shelf (460x435mm) for UBICART

Reference	Designation
700705	UBICART OPTIONAL PULLOUT SHELF

Reference	Designation
700706	UBICART OPTIONAL DRAWER

Reference	Designation / Description
700707	UBICART OPTIONAL SERUM HOLDER Serum holder on swivel arm for UBICART

Reference	Designation / Description
700708	UBICART OPTIONAL DOUBLE PIVOT Double pivot for VESA for UBICART

9. MEDICAL CARTS

UBICART ACCESSORIES

Reference	Designation / Description
700709	UBICART SINGLESIDE STD RUNNER Single-side standard runner for UBICART

Reference	Designation / Description
700710	UBICART OPTIONAL STD RUNNER Standard runner for UBICART

Reference	Designation
700621	CAMERA HOLDER STAINLESS STEEL

Reference	Designation
700622	CAMERA HOLDER STAINLESS STEEL

MEDICAL CARTS

10

PACKS

PACKS

Ubicam®, Ubipack® are registered trademarks of SOPRO

10. PACKS

SYMBIOZ+ PACKS

CAMERA
HEAD

SYMBIOZ *Flow*

SYMBIOZ *Cam+*
Full HD

SYMBIOZ
Full HD

27'' FULL HD
MONITOR

SYMBIOZ *Led*

SYMBIOZ *Master*
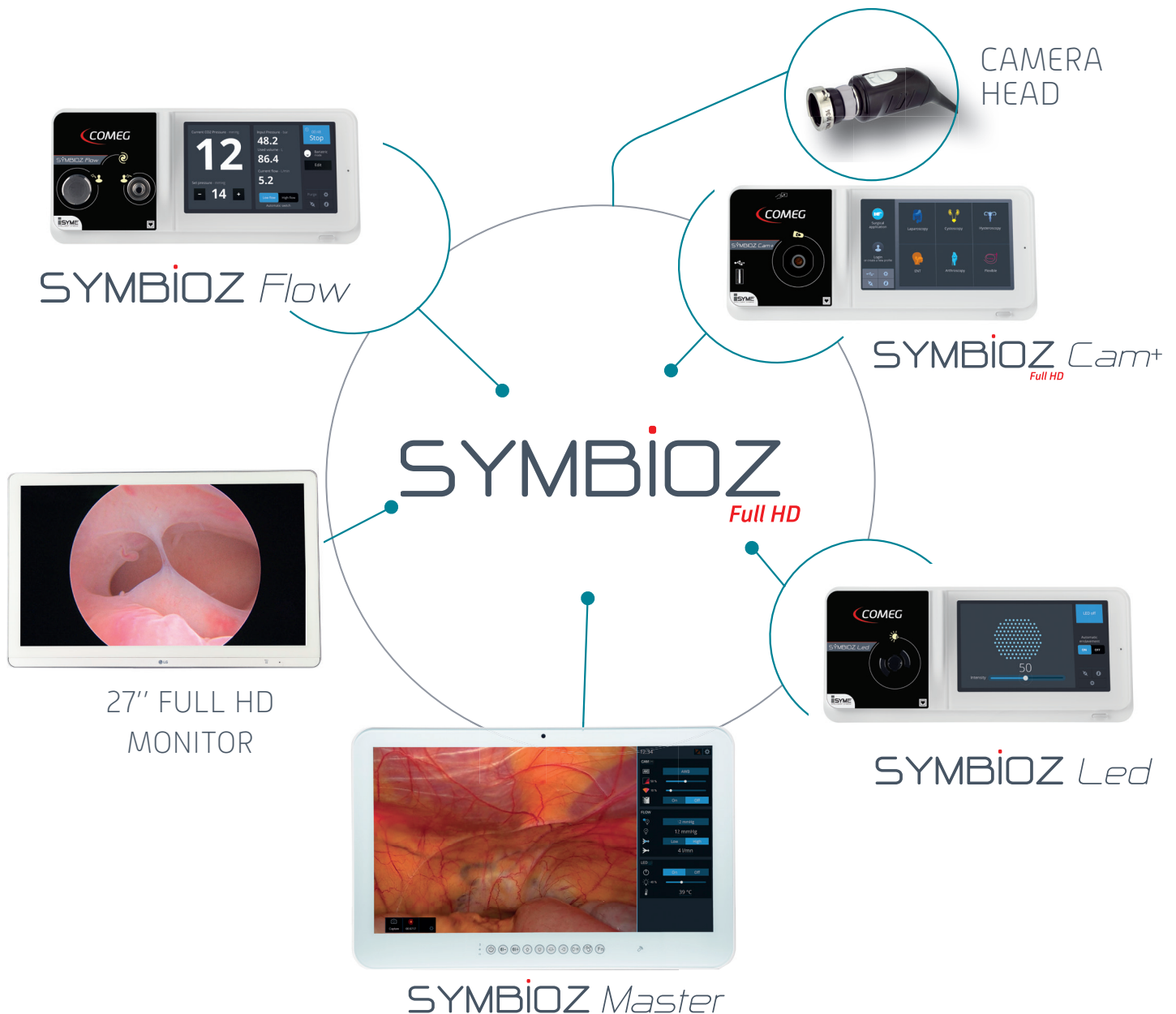
SYMBIOZ+ PACKS

	SYMBİOZ 500 *Full HD*	SYMBİOZ 300 *Full HD*	SYMBİOZ 100 *Full HD*
Ref EU	S_K30_1016	S_K30_1014	S_K30_1012
Ref US	S_K30_1017	S_K30_1015	S_K30_1013
27'' FULL HD MONITOR Ref: S_700794	✓	✓	✓
SYMBİOZ Cam+ *Full HD* WITH RECORDER Ref EU: S_198_9000 Ref US: S_198_9001	✓	✓	✓
SYMBİOZ Led Ref EU: S_298_0001 Ref US: S_298_0002	✓	✓	✓
SYMBİOZ Flow Ref EU: S_698_0001 Ref US: S_698_0002	✓	✓	
SYMBİOZ Master Ref: S_098_0002	✓		

10. PACKS

SYMBIOZ PACKS

CAMERA HEAD

SYMBIOZ *Cam*
Full HD

WITH RECORDER

SYMBIOZ
Full HD

SYMBIOZ *Flow*

27'' FULL HD MONITOR

SYMBIOZ *Led*

SYMBIOZ PACKS

	SYMBİOZ LUXE *Full HD* WITH INSUFFLATOR	SYMBİOZ LUXE *Full HD*	SYMBİOZ PREMIUM *Full HD* WITH INSUFFLATOR	SYMBİOZ PREMIUM *Full HD*
Ref EU	S_K30_1004	S_K30_1006	S_K30_1000	S_K30_1002
Ref US	S_K30_1005	S_K30_1007	S_K30_1001	S_K30_1003
27'' FULL HD MONITOR Ref: S_700794	✓	✓	✓	✓
SYMBİOZ *Led* Ref EU: S_298_0001 Ref US: S_298_0002	✓	✓	✓	✓
SYMBİOZ *Cam* *Full HD* WITH RECORDER Ref EU: S_398_9002 Ref US: S_398_9003	✓	✓		
SYMBİOZ *Cam* *Full HD* Ref EU: S_398_9000 Ref US: S_398_9001			✓	✓
SYMBİOZ *Flow* Ref EU: S_698_0001 Ref US: S_698_0002	✓		✓	

PACKS

10. PACKS

DUO FULL HD PACKS

DUO FULL HD PACKS

	Ref EU S_K19_1000	Ref US S_K19_1001
DUO *Full HD* S195 - CCU - EU Ref EU: S_195_9000	✓	
DUO *Full HD* S195 - CCU - US Ref US: S_195_9001		✓
DUO *Full HD* S195 - SENSOR Ref: S_195_8000	✓	✓
24mm coupler Ref: S_024_0001	✓	✓
Light cable *With Storz® adapters (700044/700051)* Ref: S_700216	✓	✓

10. PACKS

UBICAM® PLUS
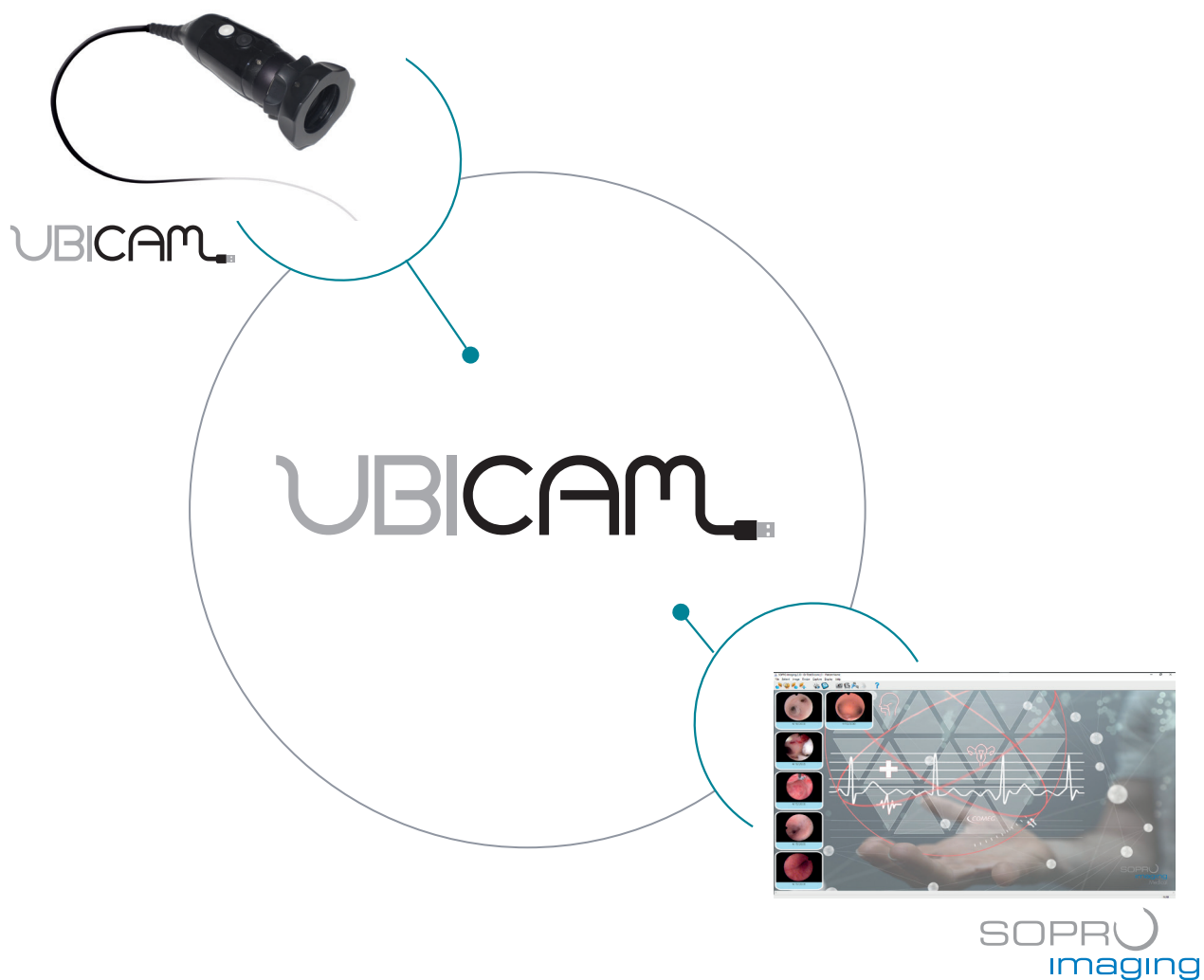
UBICAM® PLUS

Ref	S_K10_2006	S_K10_2007
UBICAM without coupler **PAL** Ref: S_181_0011	✓	
UBICAM without coupler **NTSC** Ref: S_181_0015		✓
SOPRO imaging Ref: 505026	✓	✓
18.5mm coupler Ref: S_084_0001	✓	✓

Ubicam® is a registered trademark of SOPRO

10. PACKS

UBIPACK®

UBICAM

UBIlight

UBIPACK

LIGHT CABLE

SOPRO imaging

Ubipack® is a registered trademark of SOPRO

UBIPACK®

Ref	S_K10_1015	S_K10_1021
UBICAM without coupler **PAL** Ref: S_181_0011	✔	
UBICAM without coupler **NTSC** Ref: S_181_0015		✔
SOPRO imaging Ref: 505026	✔	✔
UBIlight Ref: S_281_0001	✔	✔
18.5mm coupler Ref: S_084_0001	✔	✔
Light cable *With Storz® adapters (700044/700051)* Ref: S_700215	✔	✔

Ubipack® is a registered trademark of SOPRO

11

ULTRASONIC BONE SURGERY

ULTRASONIC BONE SURGERY

M+

OPERATING ROOM CERTIFIED

Piezotome® is a registered trademark of SATELEC
ImplantCenter™ is an unregistered trademark of SATELEC
I-Surge™ is an unregistered trademark of SATELEC

Class IIb medical devices – CE0459 (GMED) - For medical professional use only.
Manufacturer: SATELEC® – France – Distributor: COMEG® - France
Read carefully the instructions for use available on www. acteongroup.com

11. ULTRASONIC BONE SURGERY

PIEZOTOME® SOLO M+

Reference	Description
F57850	Piezotome® Solo M+ CEE
F57853	Piezotome® Solo M+ AUS
F57854	Piezotome® Solo M+ CHINE
F57855	Piezotome® Solo M+ INDIA
F57856	Piezotome® Solo M+ US
F57859	Piezotome® Solo M+ UK

Piezotome® is a registered trademark of SATELEC

SPECIFICATION OF THE DEVICE

F57850 / F57853 / F57854 / F57855 / F57856 / F57859

- Dimensions (W x H x D): 378 x 136 x 306mm
  - With brackets: 378 x 460 x 306mm
- Weight: 3700 g
- 4 power modes
- 4 programmable buttons
- Irrigation flow rate: 0 to 120 ml/min
- Reset to manufacturer settings
- Supply voltage: 100 - 230 VAC
- Power supply frequency: 50 Hz / 60 Hz

- Power consumption: 150 VA to 230 VAC
- No-load voltage: 250 V
- Minimum output frequency: 28 kHz
- Amplitude: 20 to 200 µm
- Internal fuse not accessible to the user: 1 fuse - F1: 5mm x 20mm - 10 AT / 250 VAC
- Fuse (mains connector): 2 fuses - 5mm x 20mm - 2 AT for 100 to 230 VA

SPECIFICATION OF THE SCREEN

- LCD black & white screen

- Dimensions (W x H): 115 x 86 mm

REGULATORY & ENVIRONMENT

- Manufacturer: SATELEC® - CE 0459
- Operating room certified
- Compliant with European directive 93/42/EEC - Class IIb
- Operating temperature: 10 to 30°C
- Storage temperature: 0 to 50°C
- Operating humidity: 30 to 75%
- Maximum storage humidity: 100%, including condensation
- Atmospheric pressure: 500 hPa to 1060 hPa
- Altitude: 2000 meters maximum
- Electrical safety class, leakage current types: LF
- Electrical rating: 1

- The medical device is designed to be used in an operating theatre or in premises suitable for the procedure involved
- The medical device is not designed to be used in an AP or APG gas-filled atmosphere
- The medical device must not be immersed
- Compliant with the electrical safety standard IEC60601-1
- Designed and manufactured in accordance with an ISO 13485 - certified quality assurance system
- Documentation compliant with European regulatory No.207/2012

ULTRASONIC BONE SURGERY

SATELEC® is a registered trademark of SATELEC

11. ULTRASONIC BONE SURGERY

PIEZOTOME® M+

Reference	Description
F57800	Piezotome® M+ CEE
F57812	Piezotome® M+ UK
F57813	Piezotome® M+ AUS
F57814	Piezotome® M+ CHINA
F57815	Piezotome® M+ INDIA
F57816	Piezotome® M+ US
F57820	Piezotome® M+ Korea package

Piezotome® is a registered trademark of SATELEC

SPECIFICATION OF THE DEVICE
F57800 / F57812 / F57813 / F57814 / F57815 / F57816 / F57820

- Dimensions (W x H x D): 472,9 x 149,5 x 339,9mm
  - With brackets: 472,9 x 471,1 x 339,9mm
- Weight: 5000 g
- 4 power modes
- 4 programmable buttons
- Irrigation flow rate: 10 to 120 ml/min
- Reset to manufacturer settings
- Supply voltage : 100 - 230 VAC
- Power supply frequency: 50 Hz / 60 Hz

- Power consumption: 150 VA to 230 VAC
- No-load voltage: 250 V
- Minimum output frequency: 28 kHz
- Amplitude: 20 to 200 µm
- Internal fuse not accessible to the user: 1 fuse - F1: 5mm x 20mm - 10 AT / 250 VAC
- Fuse (mains connector): 2 fuses - 5mm x 20mm - 2 AT for 100 to 230 VA

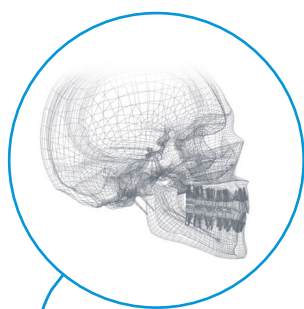# SPECIFICATION OF THE SCREEN

- Touch sensitive screen

- Dimensions (W x H): 115 x 86 mm

REGULATORY & ENVIRONMENT

- Manufacturer: SATELEC® - CE 0459
- Operating room certified
- Compliant with European directive 93/42/EEC - Class IIb
- Operating temperature: 10 to 30°C
- Storage temperature: 0 to 50°C
- Operating humidity: 30 to 75%
- Maximum storage humidity: 100%, including condensation
- Atmospheric pressure: 500 hPa to 1060 hPa
- Altitude: 2000 meters maximum
- Electrical safety class, leakage current types: LF
- Electrical rating: 1

- The medical device is designed to be used in an operating theatre or in premises suitable for the procedure involved
- The medical device is not designed to be used in an AP or APG gas-filled atmosphere
- The medical device must not be immersed
- Compliant with the electrical safety standard IEC60601-1
- Designed and manufactured in accordance with an ISO 13485 - certified quality assurance system
- Documentation compliant with European regulatory No.207/2012

ULTRASONIC BONE SURGERY

SATELEC® is a registered trademark of SATELEC

11. ULTRASONIC BONE SURGERY

IMPLANTCENTER™ M+

Reference	Description
F27250	ImplantCenter™ M+ CEE
F27252	ImplantCenter™ M+ UK
F27253	ImplantCenter™ M+ AUS
F27254	ImplantCenter™ M+ CHINA
F27255	ImplantCenter™ M+ INDIA
F27256	ImplantCenter™ M+ US

ImplantCenter™ is an unregistered trademark of SATELEC

SPECIFICATION OF THE DEVICE
F27250 / F27252 / F27253 / F27254 / F27255 / F27256

- Dimensions (W x H x D): 472,9 x 149,5 x 339,9mm
  - With brackets: 472,9 x 471,1 x 339,9mm
- Weight: 5000 g
- 4 power modes
- 4 programmable buttons
- Irrigation flow rate: 10 to 120 ml/min
- Reset to manufacturer settings
- Supply voltage: 100 – 230 VAC
- Power supply frequency: 50 Hz / 60 Hz
- Power consumption: 150 VA to 230 VAC
- No-load voltage: 250 V
- Minimum output frequency: 28 kHz
- Amplitude: 20 to 200 µm
- Internal fuse not accessible to the user: 1 fuse – F1: 5 mm x 20 mm - 10 AT / 250 VAC
- Fuse (mains connector): 2 fuses - 5 mm x 20 mm - 2 AT for 100 to 230 VA

SPECIFICATION OF THE SCREEN

- Touch sensitive screen
- Dimensions (W x H): 115 x 86 mm

REGULATORY & ENVIRONMENT

- Manufacturer: SATELEC® – CE 0459
- Operating room certified
- Compliant with European directive 93/42/EEC – Class IIb
- Operating temperature: 10 to 30°C
- Storage temperature: 0 to 50°C
- Operating humidity: 30 to 75%
- Maximum storage humidity: 100%, including condensation
- Atmospheric pressure: 500 hPa to 1060 hPa
- Altitude: 2000 meters maximum
- Electrical safety class, leakage current types: LF
- Electrical rating: 1
- The medical device is designed to be used in an operating theatre or in premises suitable for the procedure involved
- The medical device is not designed to be used in an AP or APG gas-filled atmosphere
- The medical device must not be immersed
- Compliant with the electrical safety standard IEC60601-1
- Designed and manufactured in accordance with an ISO 13485 - certified quality assurance system
- Documentation compliant with European regulatory No.207/2012

ULTRASONIC BONE SURGERY

11. ULTRASONIC BONE SURGERY

ACCESSORY: PIEZOTOME® M+ HANDPIECE

Reference	Description
F12860	Piezotome® M+ handpiece
F57802	Pack M+
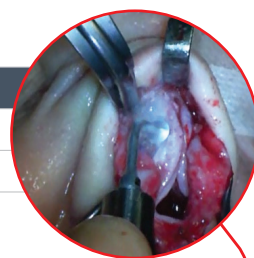
Reference	Description
F57378	Set of 1 disposable sterile line With clips and perforators
F57379	Set of 5 disposable sterile lines With clips and perforators

SPECIFICATION OF THE PIEZOTOME M+ HANDPIECE   *F12860 / F57802*

- Manufacturer: SATELEC®
- Dimensions (L): 130 mm
- Weight: 100 g
  - With cord: 265 g

- Cord length: 2900mm
- 6 ceramic rings
- Cold LED light (power): 100 000 LUX

REGULATORY & ENVIRONMENT

- Class IIb according to 93/42/EEC directive
- Operating temperature: 10 to 30°C
- Storage temperature: -20°C to 70°C
- Operating humidity: 30 to 75%
- Maximum storage humidity: 10 to 100%, including condensation
- Atmospheric pressure: 500 hPa to 1060 hPa

- Altitude: 2000 meters maximum
- The medical device is designed to be used in an operating theatre or in premises suitable for the procedure involved
- The medical device is not designed to be used in an AP or APG gas-filled atmosphere
- The medical device must not be immersed

Piezotome® is a registered trademark of SATELEC
SATELEC® is a registered trademark of SATELEC

ACCESSORY: I-SURGE™ MOTOR

Reference	Description
F34452	I-Surge™ motor
F27250	ImplantCenter™ M+ CEE Delivered with the ImplantCenter M+ only

Reference	Description
F57378	Set of 1 disposable sterile line With clips and perforators
F57379	Set of 5 disposable sterile lines With clips and perforators

SPECIFICATION OF THE I-SURGE™ *F34452 / F27250*

- Nose in accordance with ISO 3964 (E-type connection), external spray, with light
- Motor must not be lubricated
- Direct current electric brushless micromotor, self-ventilated, sterilizable
- This motor must only be used with SATELEC® cord and electronic controls
- Dimensions:
  - With the nose: Ø 23.2 x 90.6mm
  - Without the nose: Ø 23.2 x 67.9mm
- Weight: 119 g (without cable)
- Rphase: 300mOhm (one phase) Y-connection

- Lphase: 25 µH (one phase)
- Torque constant: 0.62 N.cm / Arms.
- Rotation speed: from 100 to 40.000 rpm
- Mechanical power: Max. 140 W at 25.000 rpm
- Torque: Max. 6.0 Ncm between 200 and 18.000 rpm / Max. 2.0 Ncm at 40.000 rpm
- Idle current: 0.26 A.
- Max. admissible current: 8 A (at peak)
- Noise level: less than 60 dBa at 45 cm.
- Luminous intensity: greater than 12 klux with CA 20:1 L.

REGULATORY & ENVIRONMENT

- Class IIa according to 93/42/EEC directive
- Electromagnetic compatibility: complies with the ISO 11498
- The device must be classed as a class II and BF type unit - the corresponding terminology is defined in the IEC 60601-1

- Transportation and storage conditions: temperature between -40°C and 70°C
- Relative humidity: between 10 and 100%
- Atmospheric pressure: 50 kPa to 106 kPa (7.3 to 15.3 psi)

11. ULTRASONIC BONE SURGERY

ACCESSORIES:

PIEZOTOME® SOLO M+ FOOTSWITCH

Reference	Description
F57851	Piezotome® Solo M+ footswitch

PIEZOTOME® M+ FOOTSWITCH

Reference	Description
F57801	Piezotome® M+ footswitch

IMPLANTCENTER™ M+ FOOTSWITCH

Reference	Description
F27251	ImplantCenter™ M+ footswitch

Each footswitch is delivered with its corresponding device
Piezotome® is a registered trademark of SATELEC
ImplantCenter™ is an unregistered trademark of SATELEC

SPECIFICATION OF PIEZOTOME® SOLO M+ FOOTSWITCH *F57851*

- Cord length: 2900mm
- Dimensions (W x H x D): 173 x 140 x 176mm
- Weight: 1000 g
- Light: remains active approx. 9 secs after the footswitch is released
- Multifunction footswitch:
  - Power modes
  - ON/OFF ultrasound
- Protection rating: IPX6

SPECIFICATION OF PIEZOTOME® M+ FOOTSWITCH *F57801*

- Cord length: 2900mm
- Dimensions (W x H x D): 311 x 181 x 209mm
- Weight: 3500 g
- Light: remains active approx. 9 secs after the footswitch is released
- Multifunction footswitch:
  - Power modes
  - Instrument switch
  - ON/OFF or progressive ultrasound
- Protection rating: IPX8

SPECIFICATION OF IMPLANTCENTER™ M+ FOOTSWITCH *F27251*

- Cord length: 2900mm
- Dimensions (W x H x D): 311 x 181 x 209mm
- Weight: 3500 g
- Light: remains active approx. 9 secs after the footswitch is released
- Multifunction footswitch:
  - Instrument switch
  - Direction of rotation
  - ON/OFF or progressive ultrasound / motor
- Protection rating: IPX8

REGULATORY & ENVIRONMENT

- Operating temperature: 10 to 30°C
- Storage temperature: 0 to 50°C
- Operating humidity: 30 to 75%
- Maximum storage humidity: 100%, including condensation
- Atmospheric pressure: 500 hPa to 1060 hPa
- Altitude: 2000 meters maximum

Each footswitch is delivered with its corresponding device
Piezotome® is a registered trademark of SATELEC
ImplantCenter™ is an unregistered trademark of SATELEC

11. ULTRASONIC BONE SURGERY

CONSUMABLES: CMF TIPS

Reference	Description
F57804	CMF kit sterile
F57803	CMF kit non-sterile

Reference	Description
F87982	BS1L sterile
F87612	BS1L non-sterile

Reference	Description
F87983	BS2L XL sterile
F87605	BS2L XL non-sterile

Reference	Description
F87984	BS2R XL sterile
F87606	BS2R XL non-sterile

Reference	Description
F87985	BS1RD sterile
F87608	BS1RD non-sterile

Reference	Description
F87974	SL1 sterile
F87618	SL1 non-sterile

Reference	Description
F87978	BS4 sterile
F87615	BS4 non-sterile
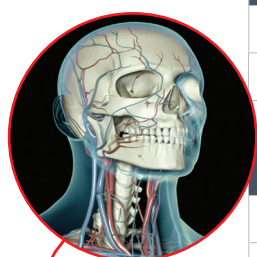
CONSUMABLES: RHINOPLASTY TIPS
« ESSENTIAL »

Reference	Description
F87681	Rhinoplasty kit "Essential" 6 tips

Reference	Description
F87676	RHS2Hb

Reference	Description
F87675	RHS2Fb

Reference	Description
F87679	RHS5

Reference	Description
F87677	RHS3L

Reference	Description
F87678	RHS3R

Reference	Description
F87680	RHS6
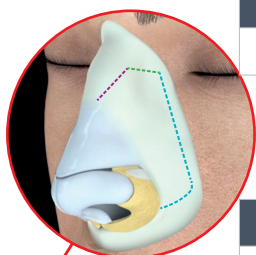
ULTRASONIC BONE SURGERY

11. ULTRASONIC BONE SURGERY

CONSUMABLES: RHINOPLASTY TIPS « EXPERT »

Reference	Description
F87689	Rhinoplasty kit "Expert" 9 tips
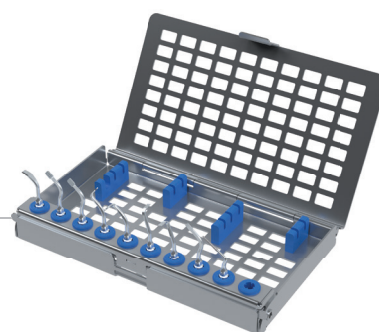
Reference	Description
F87688	RHS1

Reference	Description
F87686	RHS2Hb

Reference	Description
F87687	RHS2Fb

Reference	Description
F87677	RHS3L

Reference	Description
F87678	RHS3R

Reference	Description
F87683	RHS4L

Reference	Description
F87682	RHS4R

Reference	Description
F87679	RHS5

Reference	Description
F87680	RHS6

ULTRASONIC BONE SURGERY

11. ULTRASONIC BONE SURGERY

CONSUMABLES: OTHER M+ KITS

OSTEOTOMY / OSTEOPLASTY

Reference	Description
F57805	Pre Implant kit

LATERAL SINUS LIFT

Reference	Description
F57806	Sinus Lift kit

CRESTAL SINUS LIFT

Reference	Description
F57807	Intralift kit

CREST SPLITTING

Reference	Description
F57808	Crest Splitting kit

SYNDESMOTOMY

Reference	Description
F57809	Extraction kit

CROWN EXTENSION

Reference	Description
F57810	Crown Extension kit

INTENDED USE

M+ tips can be used for osteotomy, osteoplasty, decortication, drilling, shaping and smoothing of teeth and bone in various surgical procedures, including but not limited to general, orthopaedic, otolaryngological, maxillofacial, oral, hand and foot, neurosurgery, spinal and plastic/reconstructive surgeries.

SPECIFICATION OF SINGLE USE STERILE TIPS

- Sterile tips are single-use only
- They should be disposed of in suitable containers after use
- Single-use tips should never be resterilized or reused

② Do not re-use

# SPECIFICATION OF REUSABLE NON-STERILE TIPS

- Non-sterile tips can be used up to 5 times
- Refer to cleaning, disinfection and sterilization protocols for SATELEC® tips

⑥ 5 uses max

REGULATORY & ENVIRONMENT

- Class IIb according to the European Directive 93/42/EEC
- Compliant with Electrical Safety standards IEC60601-1 in force

- Designed and manufactured in accordance with an EN ISO 13485-certified quality assurance system
- Documentation complies with European regulation No.207/2012

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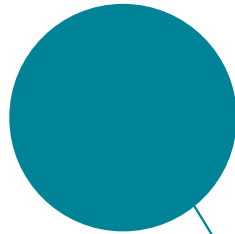
INFORMATION

INFORMATION

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NOTES

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