Inspired by you

Dedicated to your patients

INTUITIVE CONNECTION

EQUIPMENT

COMECEG medical technologies
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABOUT US</td>
<td>p05</td>
</tr>
<tr>
<td>VIDEO CAMERAS</td>
<td>p11</td>
</tr>
<tr>
<td>LIGHT SOURCES</td>
<td>p31</td>
</tr>
<tr>
<td>INSUFFLATORS</td>
<td>p43</td>
</tr>
<tr>
<td>FLUID MANAGEMENT</td>
<td>p51</td>
</tr>
<tr>
<td>MONITORS</td>
<td>p57</td>
</tr>
<tr>
<td>COMMUNICATION &amp; ARCHIVING SYSTEMS</td>
<td>p67</td>
</tr>
<tr>
<td>IMAGING SOFTWARE</td>
<td>p77</td>
</tr>
<tr>
<td>MEDICAL CARTS</td>
<td>p81</td>
</tr>
<tr>
<td>PACKS</td>
<td>p93</td>
</tr>
<tr>
<td>ULTRASONIC BONE SURGERY</td>
<td>p105</td>
</tr>
<tr>
<td>INFORMATION</td>
<td>p123</td>
</tr>
</tbody>
</table>
ABOUT US
ABOUT US

Product range at a glance ......................................................p06
Research & Development .....................................................p06
Regulatory .................................................................................p07
Service & Assistance .............................................................p08
COMEG representative offices .............................................p09
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.
Our business practices and processes are designed to achieve quality results that exceed the expectations of patients, customers and surgeons. We are committed 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.

COMECE 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
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**
(Endoscopic Equipment)
SOPRO SA
ZAC Athelia IV - Avenue des Genévriers
13705 La Ciotat cedex - France
Tel +33(0)442 980 109
info@comegmedical.com

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(Ultrasounds)
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33708 Merignac cedex - France
Tel +33(0)556 340 607
info@comegmedical.com
ABOUT US

COMEG REPRESENTATIVE OFFICES

Our local staff will support you, wherever you are in the world.

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  info.in@acteongroup.com

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  info.uk@acteongroup.com

• **India** - ACTEON® India
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  Gandhinagar - Gujarat - 382023
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  Mount Laurel, NJ 08054
  United States
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VIDEO CAMERAS

SYMBIOZ Cam+ ................................................................................. p12
SYMBIOZ Cam ................................................................................ p14
SCARDS .......................................................................................... p16
DUO FULL HD ................................................................................. p18
SOPRO™ 397 ................................................................................ p20
SOPRO™ 184 ................................................................................ p22
Ubicam® ....................................................................................... p24
Accessories for video cameras ................................................... p26

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

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.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_198_8000</td>
<td>SYMBIOZ CAM+ SENSOR</td>
</tr>
<tr>
<td></td>
<td>SYMBIOZ Cam+ Full HD - C-mount camera head with detachable 16-34mm zoom coupler - Compatible with all C-mount cameras</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_198_9000</td>
<td>SYMBIOZ CAM+ FULL HD CCU - EU</td>
</tr>
<tr>
<td>S_198_9001</td>
<td>SYMBIOZ CAM+ FULL HD CCU - US</td>
</tr>
</tbody>
</table>

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] [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

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_398_9000</td>
<td>SYMBIOZ CAM FULL HD CCU - EU</td>
</tr>
<tr>
<td>S_398_9001</td>
<td>SYMBIOZ CAM FULL HD CCU - US</td>
</tr>
<tr>
<td>S_398_9002</td>
<td>SYMBIOZ CAM FULL HD CCU R - EU</td>
</tr>
<tr>
<td>S_398_9003</td>
<td>SYMBIOZ CAM FULL HD CCU R - US</td>
</tr>
</tbody>
</table>

SYMBIOZ CAM SENSOR

SYMBIOZ Cam Full HD - Camera head with integrated HD 15-35mm zoom coupler
**SPECIFICATION OF THE CAMERA CONTROL UNIT (CCU)**

- 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
- 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]

**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.

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
<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>990245</td>
<td>KIT SCARD X7&lt;br&gt;Kit SCard x7 (Laparoscopy, Hysteroscopy, Cystoscopy, ENT, Arthroscopy, Flexible + 1 Admin)</td>
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<tr>
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<tr>
<td>990246</td>
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<tbody>
<tr>
<td>905021</td>
<td>BLANK SCARD X1</td>
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2. VIDEO CAMERAS

FULL HD CAMERA
WITH LED LIGHT SOURCE

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tr>
<td>S_195_9000</td>
<td>DUO FULL HD - S195 - CCU - EU</td>
</tr>
<tr>
<td></td>
<td>DUO FULL HD - S195 - Camera control unit - EU</td>
</tr>
<tr>
<td>S_195_9001</td>
<td>DUO FULL HD - S195 - CCU - US</td>
</tr>
<tr>
<td></td>
<td>DUO FULL HD - S195 - Camera control unit - US</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_195_8000</td>
<td>DUO FULL HD - S195 - SENSOR</td>
</tr>
<tr>
<td></td>
<td>DUO FULL HD - S195 - Camera head - Without coupler</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_024_0001</td>
<td>24MM HD COUPLER 3S V1</td>
</tr>
<tr>
<td></td>
<td>24mm HD coupler - C-mount - Scope holder with locking capacity - Weight: 87g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras</td>
</tr>
</tbody>
</table>
SPECIFICATION OF THE CAMERA CONTROL UNIT (CCU)  

- 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  

- 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  

- 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
2. VIDEO CAMERAS

FULL HD CAMERA

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
</table>
| 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                               |

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
</table>
| 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 |

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
</table>
| 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: V: 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 I 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

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
</table>
| 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 |

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
</table>
| 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 |

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
</table>
| 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

SOPRO™ is an unregistered trademark of SOPRO
### 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 1/100000)
- 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
2. VIDEO CAMERAS

USB CAMERA

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)
- 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
### 2. VIDEO CAMERAS

#### ACCESSORIES FOR VIDEO CAMERAS

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_097_0001</td>
<td>24mm HD Coupler&lt;br&gt;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</td>
</tr>
<tr>
<td>S_097_0002</td>
<td>24mm HD Coupler Focus ring&lt;br&gt;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</td>
</tr>
<tr>
<td>S_024_0001</td>
<td>24MM HD COUPLER 3S V1&lt;br&gt;24mm HD coupler - C-mount - Scope holder with locking capacity - Weight: 87g - Protection type: IPX7 (waterproof) - Compatible with all C-mount cameras</td>
</tr>
<tr>
<td>S_701004</td>
<td>18mm Beamsplitter 90° coupler&lt;br&gt;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</td>
</tr>
<tr>
<td>S_413051</td>
<td>F16-34mm coupler&lt;br&gt;16-34mm HD Zoom coupler - C-mount - scope holder - Compatible with all C-mount cameras</td>
</tr>
<tr>
<td>Reference</td>
<td>Designation / Description</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------</td>
</tr>
</tbody>
</table>
| 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 |
| 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 |
| 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 |
| 700337 | Jack to USB adapter  
Jack to USB adapter for S184 Camera & SIM software (trial version) |
## 2. VIDEO CAMERAS

### ACCESSORIES FOR VIDEO CAMERAS

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>302027</td>
<td>Storz/Olympus Adapter</td>
</tr>
<tr>
<td></td>
<td>Storz®/Olympus® Adapter for Flexible Scopes</td>
</tr>
<tr>
<td>302030</td>
<td>Fujinon Adapter</td>
</tr>
<tr>
<td></td>
<td>Fujinon® Adapter for Flexible Scopes</td>
</tr>
<tr>
<td>302032</td>
<td>Pentax Adapter</td>
</tr>
<tr>
<td></td>
<td>Pentax® Adapter for Flexible Scopes</td>
</tr>
<tr>
<td>700381</td>
<td>USB2 Amplifier</td>
</tr>
<tr>
<td></td>
<td>USB2 Amplifier 5 meter long for S181 camera</td>
</tr>
</tbody>
</table>
### 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

### 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

SYMBIOZ Led ................................................................. p32
SOPRO™ 230 & SOPRO™ 218 ......................................... p34
SOPRO™ 284 ................................................................. p36
Ubilight® ....................................................................... p38
Accessories for light sources ........................................ p40
Light cables ................................................................. p40
Accessories for light cables ........................................... p41

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Ubilight® is a registered trademark of SOPRO
3. LIGHT SOURCES

300W* LED Light Source

SYMBIOZ Led

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_298_0001</td>
<td>SYMBIOZ LED - EU</td>
</tr>
<tr>
<td></td>
<td>SYMBIOZ LED - Light source - EU</td>
</tr>
<tr>
<td>S_298_0002</td>
<td>SYMBIOZ LED - US</td>
</tr>
<tr>
<td></td>
<td>SYMBIOZ LED - Light source - US</td>
</tr>
</tbody>
</table>

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

- 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
# 3. LIGHT SOURCES

## XENON LIGHT SOURCES

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_230_0002</td>
<td>S230 - LIGHT SOURCE - EU</td>
</tr>
<tr>
<td></td>
<td>S230 - XENON 300W Light source - Storz® Adapter - EU</td>
</tr>
<tr>
<td>S_230_0007</td>
<td>S230 - LIGHT SOURCE - EU</td>
</tr>
<tr>
<td></td>
<td>S230 - XENON 300W Light source - Olympus® Adapter - EU</td>
</tr>
<tr>
<td>S_230_0005</td>
<td>S230 - LIGHT SOURCE - US</td>
</tr>
<tr>
<td></td>
<td>S230 - XENON 300W Light source - Storz® Adapter - US</td>
</tr>
<tr>
<td>S_230_0009</td>
<td>S230 - LIGHT SOURCE - US</td>
</tr>
<tr>
<td></td>
<td>S230 - XENON 300W Light source - Olympus® Adapter - US</td>
</tr>
<tr>
<td>Contact us</td>
<td>Wolf® adapter</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_218_0007</td>
<td>S218 - LIGHT SOURCE - EU</td>
</tr>
<tr>
<td></td>
<td>S218 - XENON 180W Light source - Storz® Adapter - EU</td>
</tr>
<tr>
<td>S_218_0010</td>
<td>S218 - LIGHT SOURCE - EU</td>
</tr>
<tr>
<td></td>
<td>S218 - XENON 180W Light source - Olympus® Adapter - EU</td>
</tr>
<tr>
<td>S_218_0006</td>
<td>S218 - LIGHT SOURCE - US</td>
</tr>
<tr>
<td></td>
<td>S218 - XENON 180W Light source - Storz® Adapter - US</td>
</tr>
<tr>
<td>S_218_0011</td>
<td>S218 - LIGHT SOURCE - US</td>
</tr>
<tr>
<td></td>
<td>S218 - XENON 180W Light source - Olympus® Adapter - US</td>
</tr>
<tr>
<td>Contact us</td>
<td>Wolf® adapter</td>
</tr>
</tbody>
</table>
COMMON SPECIFICATION

• 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

<table>
<thead>
<tr>
<th></th>
<th>S 230</th>
<th>S 218</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>_S_230_0002</td>
<td>_S_218_0007</td>
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<tr>
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<td>_S_230_0007</td>
<td>_S_218_0010</td>
</tr>
<tr>
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<td>_S_230_0005</td>
<td>_S_218_0006</td>
</tr>
<tr>
<td></td>
<td>_S_230_0009</td>
<td>_S_218_0011</td>
</tr>
<tr>
<td>Nominal operating power</td>
<td>300 W</td>
<td>180 W</td>
</tr>
<tr>
<td>Color T°</td>
<td>6200°K</td>
<td>5800°K</td>
</tr>
<tr>
<td>Power consumption</td>
<td>485VA</td>
<td>450VA</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_284_0001</td>
<td>S284 - LIGHT SOURCE EU&lt;br&gt;S284 - LED light source - EU power cord - Storz® Adapter&lt;br&gt;(Light intensity equivalent to 180W XENON)</td>
</tr>
<tr>
<td>S_284_0002</td>
<td>S284 - LIGHT SOURCE US&lt;br&gt;S284 - LED light source - US power cord - Storz® Adapter&lt;br&gt;(Light intensity equivalent to 180W XENON)</td>
</tr>
<tr>
<td>S_284_0003</td>
<td>S284 - LIGHT SOURCE OLYMPUS EU&lt;br&gt;S284 - LED light source - EU power cord - Olympus® Adapter&lt;br&gt;(Light intensity equivalent to 180W XENON)</td>
</tr>
<tr>
<td>S_284_0004</td>
<td>S284 - LIGHT SOURCE OLYMPUS US&lt;br&gt;S284 - LED light source - US power cord - Olympus® Adapter&lt;br&gt;(Light intensity equivalent to 180W XENON)</td>
</tr>
<tr>
<td>Contact us</td>
<td>Adapters</td>
</tr>
</tbody>
</table>

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

- LED technology
- LED lifetime: up to 50,000 hours
- Light intensity equivalent to 180W Xenon light source
- Intuitive adjustment of light intensity
- Color temperature: 6500°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
3. LIGHT SOURCES

100 W* LED LIGHT SOURCE

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

- 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
3. LIGHT SOURCES

ACCESSORIES FOR LIGHT SOURCES

Replacement Bulbs

- Reference 006003: 300 WATT XENON BULB
- Reference 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

<table>
<thead>
<tr>
<th>Ø</th>
<th>L</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.8mm</td>
<td>3m</td>
<td>S_700382</td>
</tr>
<tr>
<td></td>
<td>2.3m</td>
<td>S_700384</td>
</tr>
<tr>
<td>3.5mm*</td>
<td>3m</td>
<td>S_700216</td>
</tr>
<tr>
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<td>2.3m</td>
<td>S_700215</td>
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</table>

*For scope diameter < 4mm
## ACCESSORIES FOR LIGHT CABLES

### Endoscope side connectors

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>700051</td>
<td>STORZ ADAPTOR OPTIC SIDE</td>
</tr>
<tr>
<td></td>
<td>Connector for universal light cable - endoscope side type Storz®/Olympus®</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>700043</td>
<td>WOLF ADAPTOR OPTIC SIDE</td>
</tr>
<tr>
<td></td>
<td>Connector for universal light cable - endoscope side type Acmi/Stryker®</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>700048</td>
<td>ACMI/STRYKER ADAPT OPTIC SIDE</td>
</tr>
<tr>
<td></td>
<td>Connector for universal light cable - endoscope side type Acmi/Stryker®</td>
</tr>
</tbody>
</table>

## Light source side connectors

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
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<tbody>
<tr>
<td>700044</td>
<td>STORZ ADAPT LIGHT SOURCE SIDE</td>
</tr>
<tr>
<td></td>
<td>Connector for universal light cable - light source side type Storz®</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tr>
<td>700045</td>
<td>OLYMPUS ADAPT LIGHT SOURCE SIDE</td>
</tr>
<tr>
<td></td>
<td>Connector for universal light cable - light source side type Olympus®</td>
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<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>700046</td>
<td>WOLF ADAPTOR SOURCE SIDE</td>
</tr>
<tr>
<td></td>
<td>Connector for universal light cable - light source side type Wolf®/S&amp;N</td>
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<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>700047</td>
<td>ACMI/STRYKER ADAPT SOURCE SIDE</td>
</tr>
<tr>
<td></td>
<td>Connector for universal light cable - light source side type Acmi/Stryker®</td>
</tr>
</tbody>
</table>
INSUFFLATORS
INSUFFLATORS

SYMBIOZ Flow ................................................................. p44
SOPRO™ 640 ................................................................. p46
Accessories ................................................................. p48
CO₂ cylinder connection ........................................... p48
CO₂ connection .......................................................... p49

SOPRO™ is an unregistered trademark of SOPRO
4. INSUFFLATORS

45L/min insufflator

SYMBIOZ Flow

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_698_0001</td>
<td>SYMBIOZ FLOW INSUFFLATOR - EU</td>
</tr>
<tr>
<td></td>
<td>SYMBIOZ FLOW - S698 - 45L/min insufflator - EU</td>
</tr>
<tr>
<td>S_698_0002</td>
<td>SYMBIOZ FLOW INSUFFLATOR - US</td>
</tr>
<tr>
<td></td>
<td>SYMBIOZ FLOW - S698 - 45L/min insufflator - US</td>
</tr>
</tbody>
</table>
SPECIFICATION

- 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 CO₂ 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 CO₂ cylinder pressure or central CO₂ supply pressure
- Patented autonomy feature: Displays in minutes the remaining time of insufflation
- Internal pre heating system
- CO₂ gas supply system: US 7/16” connector
- CO₂ gas cylinder compatible (10 to 60 bars)
- CO₂ central gas supply compatible (3 to 5 bars)
- Open-ended spanner intended for CO₂ 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

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

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

* 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 CO₂ 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 CO₂ cylinder pressure
- Thumbwheel navigation and validation system
- Internal pre heating system
- CO₂ gas supply system: US 7/16” connector

- CO₂ gas cylinder compatible (10 to 60 bars)
- Open-ended spanner intended for CO₂ 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

**DE Dicated SPECIFICATION**

<table>
<thead>
<tr>
<th>Ref EU</th>
<th>Ref US</th>
<th>S 640 45L device</th>
<th>S 640 30L device</th>
<th>S 640 20L device</th>
</tr>
</thead>
<tbody>
<tr>
<td>45L/min</td>
<td>30L/min</td>
<td>20L/min</td>
<td>Bottle only</td>
<td></td>
</tr>
</tbody>
</table>

- Bottle & wall supply
- 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 60617 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

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>607103L</td>
<td>STERILE INSUFF. TUBING X20&lt;br&gt;Sterile single use insufflation tubing made of PVC - With CO2 viral filter (delivered by 20 units) - Price for 1 piece</td>
</tr>
<tr>
<td>607043L</td>
<td>REUSABLE INSUFF. TUBING X1&lt;br&gt;Reusable insufflation tubing - Autoclavable - Without filter (delivered by 1 piece) - Price for 1 piece</td>
</tr>
<tr>
<td>016006L</td>
<td>STERILE VIRAL CO2 FILTER X50&lt;br&gt;Sterile viral CO2 filter, single use, 0,027µ. Delivered by pack of 50 pieces - Price for 1 piece</td>
</tr>
<tr>
<td>S_397_1000</td>
<td>COMMUNICATION KIT S397-S640&lt;br&gt;Communication kit for S397 &amp; S640 (45L &amp; 30L)</td>
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### CO2 CYLINDER CONNECTION

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>017023</td>
<td>PIN INDEX CONNECTION DIN 477-1&lt;br&gt;Pin Index connection for DIN 477-1 n°6</td>
</tr>
<tr>
<td>017034</td>
<td>PIN INDEX CONNECTION UNF 7/16&lt;br&gt;Pin Index connection for UNF 7/16* US</td>
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</table>
### C02 Connection - Bottle

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

### C02 Connection - Wall Plug

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>700364L</td>
<td>FLEXIBLE BP 7M US 7/16 - AFNOR Flexible hose for low pressure (&lt; 7 bars) US - AFNOR, 7 meters for Central CO2 supply</td>
</tr>
<tr>
<td>700365L</td>
<td>FLEXIBLE BP 7M US 7/16 - DIN Flexible hose for low pressure (&lt; 7 bars) US - DIN, 7 meters for Central CO2 supply</td>
</tr>
<tr>
<td>700366L</td>
<td>FLEXIBLE BP 1M US - NIST Flexible hose for Central CO2 supply (network 10 bars maximum) US - UNF 7/16, 1 meter - NIST</td>
</tr>
<tr>
<td>700367L</td>
<td>FLEXIBLE BP 6M NIST - DIN Flexible hose for Central CO2 supply (network 10 bars maximum) 6 meters NIST - DIN</td>
</tr>
<tr>
<td>700368L</td>
<td>FLEXIBLE BP 6M NIST - AFNOR Flexible hose for Central CO2 supply (network 10 bars maximum) 6 meters NIST - AFNOR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>906054</td>
<td>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</td>
</tr>
</tbody>
</table>
5

FLUID MANAGEMENT
FLUID MANAGEMENT

Multi-indication pump* ....................................................... p52
Laparoscopy pump ............................................................... p54
Accessories ........................................................................... p55

* 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

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

* Not for sale in the USA
SPECIFICATION

- **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 oxide.**
5. FLUID MANAGEMENT

LAPAROSCOPY IRRIGATION AND SUCTION PUMP

**SPECIFICATION**

- 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

<table>
<thead>
<tr>
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<th>Designation / Description</th>
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<tbody>
<tr>
<td>S_673_0002</td>
<td>C673 LAPAROSCOPY PUMP</td>
</tr>
<tr>
<td></td>
<td>C673 Laparoscopic pump for irrigation and suction</td>
</tr>
</tbody>
</table>
## ACCESSORIES

For: S_672_0002 & S_673_0002

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>700720L</td>
<td>STERILE IRRIGATION TUBES</td>
</tr>
<tr>
<td></td>
<td>Tube set RFID for irrigation, disposable, sterile [delivered by 10 units] - Price for 1 piece</td>
</tr>
<tr>
<td>700719*</td>
<td>REUSABLE IRRIGATION TUBES</td>
</tr>
<tr>
<td></td>
<td>Tube set RFID for irrigation, reuse 20x, no sterile [delivered by 1 piece] - Price for 1 piece</td>
</tr>
<tr>
<td>700718L</td>
<td>STERILE SUCTION TUBES</td>
</tr>
<tr>
<td></td>
<td>Tube set RFID for suction with 2 connectors, disposable, sterile [delivered by 10 units] - Price for 1 piece</td>
</tr>
<tr>
<td>700717</td>
<td>REUSABLE VACUUM TUBES</td>
</tr>
<tr>
<td></td>
<td>Tube set for vacuum with filter, no sterile [delivered by 10 units] - Price for 1 piece</td>
</tr>
<tr>
<td>700268</td>
<td>SUCTION REGULATOR 200MBAR</td>
</tr>
<tr>
<td></td>
<td>Suction regulator, 0 to -200mbar [0 to -150mmHg], maximum flow 20L/min, NF connection, autoclavable bocal 134°C</td>
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<tr>
<td>700269</td>
<td>BACTERIOLOGICAL FILTERS</td>
</tr>
<tr>
<td></td>
<td>Bacteriological filters [100 pieces]</td>
</tr>
<tr>
<td>700425</td>
<td>BEMIS CONTAINERS X2</td>
</tr>
<tr>
<td></td>
<td>Bemis container - Single use [2 pieces]</td>
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<tr>
<td>700724</td>
<td>DIGITAL BOTTLE SCALE</td>
</tr>
<tr>
<td></td>
<td>Digital bottle scale [for C672 &amp; C673]</td>
</tr>
<tr>
<td>700424</td>
<td>COIL OF WIRE BEMIS CONTAINER</td>
</tr>
<tr>
<td></td>
<td>Coil wire for Bemis container</td>
</tr>
</tbody>
</table>

* Not for sale in the USA
MONITORS
MONITORS

Monitor 27” Full HD .............................................................. p58
Monitor 31” 4K ...................................................................... p59
Monitor 55” 4K ...................................................................... p60
Monitor 24” Full HD ............................................................ p61
Monitor 21,5” Full HD .......................................................... p62
Monitor 21,5” Full HD .......................................................... p63
Accessories ........................................................................... p64
OPERATING ROOM

Monitor 27”
Full HD

SPECIFICATION

- 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

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%
- CAN/CSA-C22.2 No. 60601-1: 14 Part 1
- IEC 60601-1: 2012 Edition 3.1 Part 1
- 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

Reference | Designation / Description
--- | ---
S_700711 | BARCO 4K 31” MONITOR
Medical grade monitor BARCO® 4K 31”
6. MONITORS

OPERATING ROOM

Monitor 55”
4K

SPECIFICATION

- 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
- 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%
- CAN/CSA-C22.2 No. 60601-1: 14 Part 1
- EN 60601-1: 2012 Edition 3.1 Part 1
/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

SPECIFICATION

- 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

SPECIFICATION

- 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
Monitor 21,5” Full HD

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

Reference Designation / Description
S_700653
BARCO HD 21,5” MONITOR
BARCO® Medical grade surgical display HD 21,5”
# 6. MONITORS

## ACCESSORIES

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>700057</td>
<td>DESKTOP STAND FOR MONITOR</td>
</tr>
<tr>
<td></td>
<td>Desktop stand for monitor with VESA mounting</td>
</tr>
<tr>
<td>700320</td>
<td>EXTENSION CABLE ALIM. MASTER</td>
</tr>
<tr>
<td></td>
<td>Extension cable for SYMBIOZ Master 2.5M (to be used with long arm medical cart)</td>
</tr>
<tr>
<td>700376</td>
<td>EXTENSION CABLE ALIM. BARCO</td>
</tr>
<tr>
<td></td>
<td>Extension cable alimentation for BARCO® monitor (to be used with long arm medical cart)</td>
</tr>
<tr>
<td>703003</td>
<td>POWER SUPPLY AG NEOVO MONITOR</td>
</tr>
<tr>
<td></td>
<td>Medical-grade power supply for AG Neovo® monitors</td>
</tr>
</tbody>
</table>
COMMUNICATION & ARCHIVING SYSTEMS
COMMUNICATION & ARCHIVING SYSTEMS

SYMBIOZ Master.......................................................................................... p68
USB medical recorder - USB 200*............................................................ p70
USB medical recorder - USB 300*............................................................ p71
Medical grade DVD recorder................................................................. p72
Medical printer - SONY® printer.............................................................. p74
Medical printer - Consumables............................................................... p75

* Not for sale in the USA
ISYMORE is a chromatic image enhancement technology developed to improve anatomical vascularization visualization.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_098_0002</td>
<td>SYMBIOZ MASTER SYMBIOZ MASTER ISYMORE - Intuitive communication system (DICOM ready)</td>
</tr>
<tr>
<td>S_098_0003</td>
<td>SYMBIOZ MASTER + STREAMING SYMBIOZ MASTER ISYMORE - Intuitive communication system (DICOM ready) + STREAMING</td>
</tr>
<tr>
<td>S_998611</td>
<td>DICOM LICENSE DICOM license alone</td>
</tr>
</tbody>
</table>
SPECIFICATION

- 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

- 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

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

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
7. COMMUNICATION & ARCHIVING SYSTEMS

MEDICAL RECORDERS

USB medical recorder

USB 200

<table>
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<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>S_700091*</td>
<td>M-USB 200 - RECORDER</td>
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<td>M-USB 200 for videos and still images recording</td>
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</table>

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<thead>
<tr>
<th>Reference</th>
<th>Designation</th>
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</thead>
<tbody>
<tr>
<td>009002</td>
<td>FOOTSWITCH WITH JACK CONNECTOR</td>
</tr>
</tbody>
</table>

SPECIFICATION

- 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
USB medical recorder

SPECIFICATION

- 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

* Not for sale in the USA
7. COMMUNICATION & ARCHIVING SYSTEMS

MEDICAL RECORDERS

Medical grade DVD recorder

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation</th>
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</thead>
<tbody>
<tr>
<td>700651</td>
<td>SONY DVD HD RECORDER</td>
</tr>
</tbody>
</table>
**SPECIFICATION**

- 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
- Product safety standards for United States, Canada and Europe
7. COMMUNICATION & ARCHIVING SYSTEMS

MEDICAL PRINTER

SPECIFICATION

- 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, SVNC [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
- Operating 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

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>S_700262</td>
<td>SONY PRINTER SONY® printer UP 25 MD HD</td>
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</table>
## MEDICAL PRINTER

### SPECIFICATION

- **Reference**: 700076

<table>
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<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>700076</td>
<td>PRINT PACK</td>
</tr>
<tr>
<td></td>
<td>A6 large size color print pack (200 sheets &amp; 4 color ink ribbons) for S_700262 - Delivered by 6 pieces - Model: UPC-21L</td>
</tr>
</tbody>
</table>

- **Format**: A6
- **Consumable Format**: 144 x 100mm
IMAGING SOFTWARE

SOPRO™ imaging .......................................................... p78

SOPRO™ is an unregistered trademark of SOPRO
8. IMAGING SOFTWARE

MEDICAL IMAGING SOFTWARE

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>505026</td>
<td>SOPRO IMAGING MEDICAL LICENSE</td>
</tr>
<tr>
<td></td>
<td>SOPRO™ Medical Imaging [SIM] License</td>
</tr>
<tr>
<td>990145</td>
<td>SOPRO IMAGING MEDICAL CD-ROM</td>
</tr>
<tr>
<td></td>
<td>CD-ROM: SOPRO™ Medical Imaging software</td>
</tr>
</tbody>
</table>
SPECIFICATION

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

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>700694</td>
<td>MEDICAL KEYBOARD QWERTY</td>
</tr>
<tr>
<td></td>
<td>Medical Keyboard QWERTY - Waterproof IPX7</td>
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<tr>
<td>700695</td>
<td>MEDICAL KEYBOARD AZERTY</td>
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<tr>
<td></td>
<td>Medical Keyboard AZERTY - Waterproof IPX7</td>
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<table>
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<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_098_0001</td>
<td>PANEL PC &amp; SOPRO IMAGING</td>
</tr>
<tr>
<td></td>
<td>Touch screen - Delivered with SOPRO™ Medical Imaging software and license</td>
</tr>
</tbody>
</table>

SOPRO™ is an unregistered trademark of SOPRO
* See pages SYMBIOZ Master specification [section 7] for more information about the panel PC
MEDICAL CARTS

Premium carts ................................................................. p82
Basic carts ................................................................. p84
Accessories ................................................................. p86
Ubicart ................................................................. p88
Ubicart accessories ............................................... p89
9. MEDICAL CARTS

OPERATING ROOM

Premium carts

**Premium & short arm**
- 3x Adjustable shelves
- 1x Camera head holder
- 1x CO₂ 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)

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>S_700598</td>
<td>PREMIUM CART WITH 2 ARMS - EU</td>
</tr>
<tr>
<td></td>
<td>Premium medical cart with two articulating arms (one long and one short) - EU</td>
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<tr>
<td>S_700624</td>
<td>PREM CART 2 ARMS WITH TRANF EU</td>
</tr>
<tr>
<td></td>
<td>Premium medical cart with two articulating arms (one long and one short) + Transformer - EU</td>
</tr>
<tr>
<td>S_700678</td>
<td>PREMIUM CART WITH 2 ARMS - US</td>
</tr>
<tr>
<td></td>
<td>Premium medical cart with two articulating arms (one long and one short) - US</td>
</tr>
<tr>
<td>S_700682</td>
<td>PREM CART 2 ARMS WITH TRANF US</td>
</tr>
<tr>
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<td>Premium medical cart with two articulating arms (one long and one short) - Transformer - US</td>
</tr>
<tr>
<td>S_700686</td>
<td>PREMIUM CART WITH 2 ARMS - UK</td>
</tr>
<tr>
<td></td>
<td>Premium medical cart with two articulating arms (one long and one short) - UK</td>
</tr>
<tr>
<td>S_700690</td>
<td>PREM CART 2 ARMS WITH TRANF UK</td>
</tr>
<tr>
<td></td>
<td>Premium medical cart with two articulating arms (one long and one short) - Transformer - UK</td>
</tr>
</tbody>
</table>
### OPERATING ROOM

**Premium**
- 3x Adjustable shelves
- 1x Camera holder
- 1x CO₂ 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)

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>S_700597</td>
<td>PREMIUM CART WITH 1 ARM - EU</td>
</tr>
<tr>
<td></td>
<td>Premium medical cart with one long arm - EU</td>
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<tr>
<td>S_700625</td>
<td>PREM CART 1 ARM WITH TRANF EU</td>
</tr>
<tr>
<td></td>
<td>Premium medical cart with one long arm + Transformer - EU</td>
</tr>
<tr>
<td>S_700679</td>
<td>PREMIUM CART WITH 1 ARM - US</td>
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<tr>
<td></td>
<td>Premium medical cart with one long arm - US</td>
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<td>S_700683</td>
<td>PREM CART 1 ARM WITH TRANF US</td>
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<tr>
<td></td>
<td>Premium medical cart with one long arm + Transformer - US</td>
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<tr>
<td>S_700687</td>
<td>PREMIUM CART WITH 1 ARM - UK</td>
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<td></td>
<td>Premium medical cart with one long arm - UK</td>
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<tr>
<td>S_700691</td>
<td>PREM CART 1 ARM WITH TRANF UK</td>
</tr>
<tr>
<td></td>
<td>Premium medical cart with one long arm + Transformer - UK</td>
</tr>
</tbody>
</table>
9. MEDICAL CARTS

OPERATING ROOM

Basic carts

**Basic & short arm**
- 3x Adjustable shelves
- 1x Camera head holder
- 1x CO₂ cylinder holder
- 1x Drawer
- 1x Articulated short arm
- 1x Fixed mount for flat panel
- 1x 5m Power Cord
- 7x 60cm connection power cables
- 4x Castor wheels (2 with brake)

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>S_700596</td>
<td>CART FIXED SCREEN + ARM - EU</td>
</tr>
<tr>
<td>S_700627</td>
<td>CART FIXED SCREEN+ARM+TRANS EU</td>
</tr>
<tr>
<td>S_700680</td>
<td>CART FIXED SCREEN + ARM - US</td>
</tr>
<tr>
<td>S_700684</td>
<td>CART FIXED SCREEN+ARM+TRANS US</td>
</tr>
<tr>
<td>S_700688</td>
<td>CART FIXED SCREEN + ARM - UK</td>
</tr>
<tr>
<td>S_700692</td>
<td>CART FIXED SCREEN+ARM+TRANS UK</td>
</tr>
</tbody>
</table>
Basic

- 3x Adjustable shelves
- 1x Camera head holder
- 1x CO₂ 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)

<table>
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<tbody>
<tr>
<td>S_700595</td>
<td>BASIC CART FIXED SCREEN - EU</td>
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<td>Basic medical cart with fixed screen - EU</td>
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<tr>
<td>S_700628</td>
<td>CART FIXED SCREEN+TRANSF - EU</td>
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<tr>
<td></td>
<td>Basic medical cart with fixed screen + Transformer - EU</td>
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<tr>
<td>S_700681</td>
<td>BASIC CART FIXED SCREEN - US</td>
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<td>Basic medical cart with fixed screen - US</td>
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<td>S_700685</td>
<td>CART FIXED SCREEN+TRANSF - US</td>
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<tr>
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<td>Basic medical cart with fixed screen + Transformer - US</td>
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<td>BASIC CART FIXED SCREEN - UK</td>
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<td>Basic medical cart with fixed screen - UK</td>
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<td>S_700693</td>
<td>CART FIXED SCREEN+TRANSF - UK</td>
</tr>
<tr>
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<td>Basic medical cart with fixed screen + Transformer - UK</td>
</tr>
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</table>
## 9. MEDICAL CARTS

### ACCESSORIES

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
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<tbody>
<tr>
<td>700796</td>
<td>PULL-OUT SHELF FOR KEYBOARD&lt;br&gt;Extra shelf on trolley’s drawer for multi indication pump</td>
</tr>
<tr>
<td>700796</td>
<td>EXTRA SHELF FOR PUMP&lt;br&gt;Extra shelf on trolley’s drawer for multi indication pump</td>
</tr>
<tr>
<td>700796</td>
<td>EXTR SHELF FOR PUMP&lt;br&gt;Extra shelf on trolley’s drawer for multi indication pump</td>
</tr>
<tr>
<td>700821</td>
<td>CAMERA HOLDER STAINLESS STEEL</td>
</tr>
<tr>
<td>700822</td>
<td>CAMERA HOLDER STAINLESS STEEL</td>
</tr>
<tr>
<td>700821</td>
<td>BOTTLE HOLDER Ø140MM&lt;br&gt;CO2 cylinder holder Ø140mm (rear side cart)</td>
</tr>
<tr>
<td>Reference</td>
<td>Designation / Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>700317</td>
<td>EXTRA SHELF 320X450MM</td>
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<tr>
<td>700361</td>
<td>FOOTSWITCH HOLDER</td>
</tr>
<tr>
<td></td>
<td>Foot switch panel for undercarriage</td>
</tr>
<tr>
<td>700618</td>
<td>FLEXIBLE SCOPE HOLDER</td>
</tr>
<tr>
<td></td>
<td>Flexible scope holder (fixed on the side)</td>
</tr>
<tr>
<td>700617</td>
<td>SERUM HOLDER</td>
</tr>
<tr>
<td></td>
<td>Serum holder (fixed on the side)</td>
</tr>
<tr>
<td>700309</td>
<td>POWER CORDE 60CM</td>
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<tr>
<td></td>
<td>Serum holder (fixed on the side)</td>
</tr>
<tr>
<td>700616</td>
<td>EQP CONNECTION LEAD 60CM</td>
</tr>
</tbody>
</table>
9. MEDICAL CARTS

CONSULTING ROOM

Ubicart

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

CUSTOMABLE

Ubicart - EU
- S_700362

Ubicart - EU with isolation transformer
- S_700418

Ubicart - UK
- S_700726

Ubicart - UK with isolation transformer
- S_700727

Ubicart - US
- S_700728

Ubicart - US with isolation transformer
- S_700729

100cm

150cm

S_700791

S_700793

S_700792

S_700797

S_700798

/
# UBICART ACCESSORIES

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
</thead>
</table>
| 700704    | UBICART OPTIONAL EXTRA SHELF  
Extra shelf (460x435mm) for UBICART |
| 700705    | UBICART OPTIONAL PULLOUT SHELF |
| 700706    | UBICART OPTIONAL DRAWER |
| 700707    | UBICART OPTIONAL SERUM HOLDER  
Serum holder on swivel arm for UBICART |
| 700708    | UBICART OPTIONAL DOUBLE PIVOT  
Double pivot for VESA for UBICART |
9. MEDICAL CARTS

UBICART ACCESSORIES

<table>
<thead>
<tr>
<th>Reference</th>
<th>Designation / Description</th>
</tr>
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<tbody>
<tr>
<td>700709</td>
<td>UBICART SINGLE SIDE STD RUNNER</td>
</tr>
<tr>
<td></td>
<td>Single-side standard runner for UBICART</td>
</tr>
<tr>
<td>700710</td>
<td>UBICART OPTIONAL STD RUNNER</td>
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<td></td>
<td>Standard runner for UBICART</td>
</tr>
<tr>
<td>700621</td>
<td>CAMERA HOLDER STAINLESS STEEL</td>
</tr>
<tr>
<td>700622</td>
<td>CAMERA HOLDER STAINLESS STEEL</td>
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</table>
PACKS
PACKS

SYMBIOZ+ Packs ................................................................. p94
SYMBIOZ Packs ................................................................. p96
DUO FHD Packs ................................................................. p98
Ubicam® PLUS Packs ......................................................... p100
Ubipack® Packs ................................................................. p102
10. PACKS

SYMBIOZ+ PACKS

SYMBIOZ Flow

CAMERA HEAD

SYMBIOZ Cam+

27” FULL HD MONITOR

SYMBIOZ Master

SYMBIOZ Led

FULL HD
<table>
<thead>
<tr>
<th>SYMBIOZ + PACKS</th>
<th>SYMBIOZ 500</th>
<th>SYMBIOZ 300</th>
<th>SYMBIOZ 100</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ref EU</strong></td>
<td>S_K30_1016</td>
<td>S_K30_1014</td>
<td>S_K30_1012</td>
</tr>
<tr>
<td><strong>Ref US</strong></td>
<td>S_K30_1017</td>
<td>S_K30_1015</td>
<td>S_K30_1013</td>
</tr>
</tbody>
</table>

- **27” FULL HD MONITOR**
  - Ref EU: S_700794
  - Ref US: S_700794

- **SYMBIOZ Cam+ WITH RECORDER**
  - Ref EU: S_198_9000
  - Ref US: S_198_9001

- **SYMBIOZ Led**
  - Ref EU: S_298_0001
  - Ref US: S_298_0002

- **SYMBIOZ Flow**
  - Ref EU: S_698_0001
  - Ref US: S_698_0002

- **SYMBIOZ Master**
  - Ref S_098_0002
10. PACKS

SYMBIOZ PACKS

SYMBIOZ Cam

WITH RECORDER

CAMERA HEAD

SYMBIOZ Flow

SYMBIOZ Led

27” FULL HD MONITOR

FULL HD
## SYMBIOZ PACKS

<table>
<thead>
<tr>
<th>Ref EU</th>
<th>Ref US</th>
<th>27&quot; FULL HD MONITOR</th>
<th>SYMBIOZ LED</th>
<th>SYMBIOZ Cam WITH RECORDER</th>
<th>SYMBIOZ Cam</th>
<th>SYMBIOZ Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>S_K30_1004</td>
<td>S_K30_1005</td>
<td>✓</td>
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<td>✓</td>
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<td>S_K30_1000</td>
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<tr>
<td>S_K30_1002</td>
<td>S_K30_1003</td>
<td>✓</td>
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</table>

**Ref EU:** S_700794

**Ref US:** S_298_0001

**Ref US:** S_298_0002

**Ref US:** S_398_9002

**Ref US:** S_398_9003

**Ref US:** S_698_0001

**Ref US:** S_698_0002

---

**SYMBIOZ LUXE WITH INSUFFLATOR**

**SYMBIOZ LUXE**

**SYMBIOZ PREMIUM WITH INSUFFLATOR**

**SYMBIOZ PREMIUM**
10. PACKS

DUO FULL HD PACKS
# DUO FULL HD PACKS

<table>
<thead>
<tr>
<th>Item</th>
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<th>Ref US</th>
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<tbody>
<tr>
<td>S195 - CCU - EU</td>
<td>S_K19_1000</td>
<td>S_K19_1000</td>
</tr>
<tr>
<td>S195 - CCU - US</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>S195 - SENSOR</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>24mm coupler</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Light cable</td>
<td>✓</td>
<td>✓</td>
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*With Storz® adapters (700044/700051)*

Ref EU: S_195_9000

Ref US: S_195_9001

Ref US: S_195_9001

Ref EU: S_195_9000

Ref US: S_195_8000

Ref EU: S_024_0001

Ref US: S_700216

Ref EU: S_024_0001

Ref US: S_700216
# UBICAM® PLUS

<table>
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<tr>
<th>Ref</th>
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<th>S_K10_2007</th>
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<tbody>
<tr>
<td><strong>UBICAM™</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>without coupler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAL</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Ref: S_181_0011</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UBICAM™</strong></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>without coupler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTSC</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Ref: S_181_0015</td>
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<td></td>
</tr>
<tr>
<td><strong>SOPRO imaging</strong></td>
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</tr>
<tr>
<td>Ref: 505026</td>
<td>✓</td>
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</tr>
<tr>
<td>18.5mm coupler</td>
<td>✓</td>
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<tr>
<td>Ref: S_084_0001</td>
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</table>

Ubicam® is a registered trademark of Sopro
10. PACKS

UBIPACK®

Ubipack® is a registered trademark of Sopro
<table>
<thead>
<tr>
<th>Ref</th>
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<th>S_K10_1021</th>
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<tbody>
<tr>
<td><strong>UBICAM</strong></td>
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<td></td>
</tr>
<tr>
<td>without coupler</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>PAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ref: S_181_0011</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UBICAM</strong></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>without coupler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTSC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ref: S_181_0015</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>SOPRO</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>imaging</td>
<td></td>
<td></td>
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<tr>
<td>Ref: 505026</td>
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<td></td>
</tr>
<tr>
<td><strong>UBILIGHT</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ref: S_281_0001</td>
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</tr>
<tr>
<td>18.5mm coupler</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ref: S_084_0001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light cable</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>With Storz® adapters [700044/700051]</td>
<td></td>
<td></td>
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<tr>
<td>Ref: S_700215</td>
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</tbody>
</table>
ULTRASONIC BONE SURGERY
ULTRASONIC BONE SURGERY

PIEZOTOME® SOLO M+ ................................................................. p106
PIEZOTOME® M+ ........................................................................ p108
IMPLANTCENTER™ M+ ............................................................... p110
ACCESSORY: Piezotome® M+ handpiece .................................. p112
ACCESSORY: I-SURGE™ motor .................................................. p113
ACCESSORIES: M+ footswitches .............................................. p114
CONSUMABLES: CMF tips ....................................................... p116
CONSUMABLES: Rhinoplasty tips «Essential» ....................... p117
CONSUMABLES: Rhinoplasty tips «Expert» .......................... p118
CONSUMABLES: Other M+ kits ............................................. p120

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.akteongroup.com
11. ULTRASONIC BONE SURGERY

PIEZOTOME® SOLO M+

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
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<tbody>
<tr>
<td>F57850</td>
<td>Piezotome® Solo M+ CEE</td>
</tr>
<tr>
<td>F57853</td>
<td>Piezotome® Solo M+ AUS</td>
</tr>
<tr>
<td>F57854</td>
<td>Piezotome® Solo M+ CHINE</td>
</tr>
<tr>
<td>F57855</td>
<td>Piezotome® Solo M+ INDIA</td>
</tr>
<tr>
<td>F57856</td>
<td>Piezotome® Solo M+ US</td>
</tr>
<tr>
<td>F57859</td>
<td>Piezotome® Solo M+ UK</td>
</tr>
</tbody>
</table>

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

SATELEC® is a registered trademark of SATELEC
11. ULTRASONIC BONE SURGERY

PIEZOTOME® M+

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F57800</td>
<td>Piezotome® M+ CEE</td>
</tr>
<tr>
<td>F57812</td>
<td>Piezotome® M+ UK</td>
</tr>
<tr>
<td>F57813</td>
<td>Piezotome® M+ AUS</td>
</tr>
<tr>
<td>F57814</td>
<td>Piezotome® M+ CHINA</td>
</tr>
<tr>
<td>F57815</td>
<td>Piezotome® M+ INDIA</td>
</tr>
<tr>
<td>F57816</td>
<td>Piezotome® M+ US</td>
</tr>
<tr>
<td>F57820</td>
<td>Piezotome® M+ Korea package</td>
</tr>
</tbody>
</table>

Piezotome® is a registered trademark of SATELEC
SPECIFICATION OF THE DEVICE

- 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

SATELEC® is a registered trademark of SATELEC
110. ULTRASONIC BONE SURGERY

IMPLANTCENTER™ M+

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F27250</td>
<td>ImplantCenter™ M+ CEE</td>
</tr>
<tr>
<td>F27252</td>
<td>ImplantCenter™ M+ UK</td>
</tr>
<tr>
<td>F27253</td>
<td>ImplantCenter™ M+ AUS</td>
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<tr>
<td>F27254</td>
<td>ImplantCenter™ M+ CHINA</td>
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<tr>
<td>F27255</td>
<td>ImplantCenter™ M+ INDIA</td>
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<tr>
<td>F27256</td>
<td>ImplantCenter™ M+ US</td>
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</tbody>
</table>

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

SATELEC® is a registered trademark of SATELEC
11. ULTRASONIC BONE SURGERY

ACCESSORY: PIEZOTOME® M+ HANDPIECE

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
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</thead>
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<tr>
<td>F12860</td>
<td>Piezotome® M+ handpiece</td>
</tr>
<tr>
<td>F57802</td>
<td>Pack M+</td>
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</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F57378</td>
<td>Set of 1 disposable sterile line With clips and perforators</td>
</tr>
<tr>
<td>F57379</td>
<td>Set of 5 disposable sterile lines With clips and perforators</td>
</tr>
</tbody>
</table>

SPECIFICATION OF THE PIEZOTOME M+ HANDPIECE

- Manufacturer: SATELEC®
- Dimensions (L): 130 mm
- Weight: 100 g
  - With cord: 265 g
- Cord length: 2900 mm
- 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

112
ACCESSORY: I-SURGE™ MOTOR

SPECIFICATION OF THE I-SURGE™

- 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)

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F34452</td>
<td>I-Surge™ motor</td>
</tr>
<tr>
<td>F27250</td>
<td>ImplantCenter™ M+ CEE Delivered with the ImplantCenter M+ only</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
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<tbody>
<tr>
<td>F57378</td>
<td>Set of 1 disposable sterile line With clips and perforators</td>
</tr>
<tr>
<td>F57379</td>
<td>Set of 5 disposable sterile lines With clips and perforators</td>
</tr>
</tbody>
</table>

I-Surge™ is an unregistered trademark of SATELEC
ImplantCenter™ is an unregistered trademark of SATELEC
SATELEC® is a registered trademark of SATELEC
11. ULTRASONIC BONE SURGERY

ACCESSORIES:

PIEZOTOME® SOLO M+ FOOTSWITCH

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>F57851</td>
<td>Piezotome® Solo M+ footswitch</td>
</tr>
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</table>

PIEZOTOME® M+ FOOTSWITCH

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
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<tbody>
<tr>
<td>F57801</td>
<td>Piezotome® M+ footswitch</td>
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</table>

IMPLANTCENTER™ M+ FOOTSWITCH

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>F27251</td>
<td>ImplantCenter™ M+ footswitch</td>
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</tbody>
</table>

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

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

SPECIFICATION OF PIEZOTOME® SOLO M+ FOOTSWITCH

- 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

- 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

- 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

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

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>F57804</td>
<td>CMF kit sterile</td>
</tr>
<tr>
<td>F57803</td>
<td>CMF kit non-sterile</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Reference</th>
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<tbody>
<tr>
<td>F87982</td>
<td>BS1L sterile</td>
</tr>
<tr>
<td>F87612</td>
<td>BS1L non-sterile</td>
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<table>
<thead>
<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>F87983</td>
<td>BS2L XL sterile</td>
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<tr>
<td>F87605</td>
<td>BS2L XL non-sterile</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>F87984</td>
<td>BS2R XL sterile</td>
</tr>
<tr>
<td>F87606</td>
<td>BS2R XL non-sterile</td>
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<thead>
<tr>
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<tbody>
<tr>
<td>F87985</td>
<td>BS1RD sterile</td>
</tr>
<tr>
<td>F87608</td>
<td>BS1RD non-sterile</td>
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<tr>
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<tbody>
<tr>
<td>F87974</td>
<td>SL1 sterile</td>
</tr>
<tr>
<td>F87618</td>
<td>SL1 non-sterile</td>
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<tr>
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<tbody>
<tr>
<td>F87978</td>
<td>BS4 sterile</td>
</tr>
<tr>
<td>F87615</td>
<td>BS4 non-sterile</td>
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## CONSUMABLES: RHINOPLASTY TIPS « ESSENTIAL »

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
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<tbody>
<tr>
<td>F87681</td>
<td>Rhinoplasty kit “Essential” 6 tips</td>
</tr>
<tr>
<td>F87676</td>
<td>RHS2Hb</td>
</tr>
<tr>
<td>F87675</td>
<td>RHS2Fb</td>
</tr>
<tr>
<td>F87679</td>
<td>RHS5</td>
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<tr>
<td>F87677</td>
<td>RHS3L</td>
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<tr>
<td>F87678</td>
<td>RHS3R</td>
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<tr>
<td>F87680</td>
<td>RHS6</td>
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### 11. ULTRASONIC BONE SURGERY

**CONSUMABLES: RHINOPLASTY TIPS « EXPERT »**

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<thead>
<tr>
<th>Reference</th>
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<tbody>
<tr>
<td>F87689</td>
<td>Rhinoplasty kit “Expert” 9 tips</td>
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<tr>
<td>F87686</td>
<td>RHS2Hb</td>
</tr>
<tr>
<td>F87687</td>
<td>RHS2Fb</td>
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<tr>
<td>F87688</td>
<td>RHS1</td>
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<tr>
<td>F87677</td>
<td>RHS3L</td>
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<tr>
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<td>F87680</td>
<td>RHS6</td>
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## 11. ULTRASONIC BONE SURGERY

### CONSUMABLES: OTHER M+ KITS

<table>
<thead>
<tr>
<th>Reference</th>
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<tbody>
<tr>
<td>F57805</td>
<td>Pre Implant kit</td>
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<tr>
<td>F57806</td>
<td>Sinus Lift kit</td>
</tr>
<tr>
<td>F57807</td>
<td>Intralift kit</td>
</tr>
<tr>
<td>F57808</td>
<td>Crest Splitting kit</td>
</tr>
<tr>
<td>F57809</td>
<td>Extraction kit</td>
</tr>
<tr>
<td>F57810</td>
<td>Crown Extension kit</td>
</tr>
</tbody>
</table>

- **OSTEOTOMY / OSTEOPLASTY**
- **LATERAL SINUS LIFT**
- **CRESTAL SINUS LIFT**
- **CREST SPLITTING**
- **SYNDESMOTOMY**
- **CROWN EXTENSION**
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

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

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

Do not re-use

5 uses max

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INFORMATION

Notes ......................................................................................... p124
Your local contact ........................................................................ p125