





# SOPRO COMEG

Monitors

# Medical carts

# **CONTENTS**

1	COMPANY	5
2	VIDEO CAMERAS	11
3	LIGHT SOURCES	33
4	INSUFFLATORS	45
	FLUID MANAGEMENT	
	MONITORS	
7	COMMUNICATION SYSTEM	.67
	ARCHIVING SYSTEMS	71
9	IMAGING SOFTWARE	75
	MEDICAL CARTS	79

French manufacturing plant **La Ciotat - FRANCE**Surface: 3 200 m<sup>2</sup>





German manufacturing plant **Tuttlingen - GERMANY** Surface : 2 600 m<sup>2</sup>

# **COMPANY**

Company history	рć
Products range at a glance	p7
Regulatory	р8
Research & Development	pς
Service & Assistance	pЯ
Representative offices	р <sup>9</sup>

# COMPANY



# COMEG

1075

COMEG was founded.

1977

Introduction of medical endoscopes.

1993

Introduction of autoclavable endoscopes.

1994

Introduction of the urology product line.

2001

New optical generation of medical endoscopes.

# SOPRO

#### 1977

SOPRO was founded.

#### 1986

Introduction of microcameras for endoscopy.

#### 2001

SOPRO joins the Acteon Group.

#### 2003

Sopro moves into a bigger, brand new building in La Ciotat.

#### 2004

Acquisition of Geyser and development of a range of insufflators and pumps.



#### 2006

COMEG joins SOPRO

### 2007

Introduction of a Spine surgery product line

#### 2009

Introduction of the SOPRO 397 3CCD Full HD camera Introduction of the Sopro Medical Software Introduction of a range of bipolar forceps & scissors

### 2010

Introduction of the Full HD laparoscope
Introduction of HEOS, the hysteroscopic endo operative system
Introduction of UBIPACK, the complete solution for gynecology and ENT

#### 2011

Introduction of ULYSS, 4mm autoclavable endoscope with variable direction of view

#### 2012

New range of uretero-renoscopes

#### 2013

Introduction of a bipolar resectoscopy range

#### 2014

Introduction of SYMBIOZ and the SCard

Medical carts

# COMPANY

### PRODUCTS RANGE AT A GLANCE

SOPRO-COMEG offers a complete range ranking from capital equipment to re-usable, high quality, durable instruments. Whatever your application is: Urology, Laparoscopy, Arthroscopy, Gynecology, Spine, ENT, SOPRO-COMEG will offer you the best solution and fullfill your needs.



#### **Capital equipment**

SOPRO-COMEG meets the needs of international surgeons and distributors 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, shaver, 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.



SOPRO-COMEG proposes a complete range of instruments for entry into the peritoneum, the first and most crucial step in successful laparoscopic surgery. A complete range of hand instruments in both monopolar and bipolar electrocautery versions is also available. The full HD 10mm laparoscope will provide you the quality you need for High Definition picture.





### Urology

SOPRO-COMEG, a company with over 25 years experience in the urology field, offers endoscopes with exceptional optical quality and a complement of instruments which will ease even the most demanding urological procedures including: cystoscopy, resectoscopy and urethrotomy. These products are an integral part of recent technological advancements which improve the diagnosis-treatment process and the level of care that urologists can now offer to their patients.

### Gynecology

Gynecology, hysteroscopy, resectoscopy and other procedures are made easier with the SOPRO-COMEG products. Clarity and efficiency are the key words of our gynecology range.





#### Arthroscopy

Sharp images, precision in visualization are possible through the use of our range for arthroscopy from 4.0mm telescopes to the small-joint arthroscopic lines.

#### Spine

Our spinal endoscopy system allows to treat disc-diseases. All types of hernias can be removed in a minimal invasive interlamiar approach, by means of the endoscopic technique. The technique also qualifies for the effective treatment of chronic back-ailments caused by disc-prolaps or tears. Furthermore, endoscopic treatment of spinal stenosis has increased.





#### **ENT**

Our field of activities also includes all areas of the ENT disciplines, whether it is diagnostics or therapy, practice or clinic. We propose rigid endoscopes and accessories necessary for sinuscopy, otoscopy and laryngoscopy. All our instruments are manufactured with the highest quality materials.

# **COMPANY**

## **REGULATORY**

Our business practices and processes are designed to achieve quality results that exceed the expectations of patients, customers, surgeons. We are dedicated to the delivery of quality healthcare products 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 in to all our products, as is our commitment and dedication to our customers throughout the world.

> Both 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 and the European Union.

### SOPRO and SOPRO-COMEG manufactures equipments and endoscopes in accordance with the following directives or standards:

- Medical device directive 93/42 EEC (M5 2007/47 EEC)
- DIN EN ISO 13485: 2003 AC:2007 certified: Quality management system
- EN ISO 13485: 2003 AC:2007 certified Quality management system
  EN ISO 13485: 2003 AC:2007 certified Quality management system (issued according to CMDCAS program requirements)
- Series of standards IEC 60601
- Series of standards ISO 8600
- FDA regulations\* (FDA Quality system Regulation 21 CFR Part 820).
- EC attestations issued for all our class II devices..



\*the newest ones may be 510(k) pending.

# COMPANY

## **RESEARCH & DEVELOPMENT**

Innovation being the key to improve health, SOPRO-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 SOPRO-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, chemical, 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 the complete endoscopy solution.

### SERVICE & ASSISTANCE

In both our main plants (La Ciotat and Tuttlingen), our on-site specialists are dedicated to servicing and providing expertises to your SOPRO-COMEG products:

- Express repair of all our products under warranty
- Free quotation for all repairs out of warranty
- Qualified repair with original spare parts
- Streamline endoscope exchange program)
- Technical training

#### • SOPRO-COMEG in France

(Equipment)
ZAC Athelia 4
Avenue des Genévriers
13705 La Ciotat cedex
Tel +33(0)442 98 01 09
cs@sopro-comeg.com

#### SOPRO-COMEG GmbH

(Endoscopes and accessories)
Serviceabteilung
Dornierstrasse 55
78532 Tuttlingen - Germany
Tel +49 (0) 7461-9344-26
claudia.mirci@sopro-comeg.com

## SOPRO-COMEG REPRESENTATIVE OFFICES

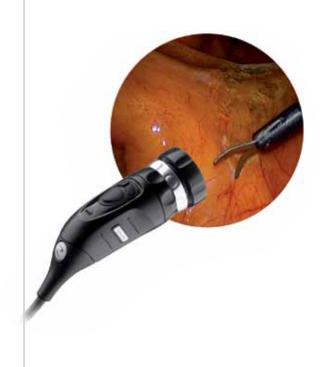
#### Our local staff will support you, wherever you are in the world.

- China ACTEON China
  Office 401
  No.12 Xinyuanxili Zhong Street,
  Chaoyang District, Beijing 100027
  Tel +86 10 646 57011/2/3
  info.cn@sopro-comeg.com
- Middle East ACTEON Middle East Numan center 1st Floor N°111 Gardens street PO box 468 - 11953 Amman Jordan Tel +962 6 553 4401 info.me@sopro-comeg.com
- USA ACTEON Inc. 124 Gaither Drive, Suite 140 Mount Laurel, NJ 08054 Tel +1 856 222 9988 info.us@sopro-comeg.com

- Russia ACTEON Russia Valdayskiy Proezd 16 Office 243 125445 Mocow Tel + 7 499 76 71 316 info.ru@sopro-comeg.com
- Taiwan ACTEON Taïwan 14F.-1, N°433, Jingping Rd. Jhonghe City - Taipei County 235 Tel +866 926 704 505 tina.chu@tw.acteongroup.com
- India ACTEON India B-94 G.I.D.C ELECTRONIC ESTATE Sector 25 Gandhinagar - Gujurat - 382023 Tel +91 (79) 2328 7473 ajay.sadana@in.acteongroup.com
- United Kingdom ACTEON UK
  Unit 1 Steel close, Eaton Socon, St Neots
  Cambridgeshire, PE19 8TT
  Tel +44 1480 477 307
  info@acteongroup.co.uk
  www.acteongroup.co.uk
- **Germany** ACTEON Gmbh Industriestraße 9, 40822 Mettmann Tel +49 2104 956510 timo.hand@de.acteongroup.com
- Italy ACTEON Italia
  Via Roma 45
  21057 Olgiate olona (Varese)
  Tel: +39 0331 376 760
  andrea.castellini@acteongroup.com



# SOPRO COMEG



ORION - 3Cmos Full HD camera	12
SOPRO 397 - 3CCD Full HD camera	14
SOPRO 368 - 3CCD HD camera	16
SOPRO 367 - 3CCD camerap	18
SOPRO 184 - 1CCD camerap	20
SOPRO 165 - 1CCD camera	22
SOPRO 181 - 1CCD USB camera - Ubicam	24
UBIPACK - Full consulting room pack	26
Accessories for video cameras	28

# SYMBIOZ











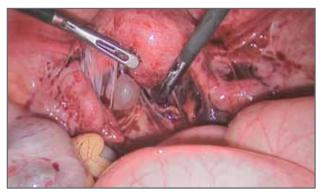




# Lead everything in one click

- Six preset environments to fit your surgical application
- Full HD integrated video recorder
- Built-in HD zoom
- All features available from the camera head
- 3CMOS full HD sensors for impressive image quality





### SPECIFICATIONS OF THE CAMERA CONTROL UNIT (CCU)

- 6 optimized preset applications
- Instant and contactless access to preset applications and personnal profiles with the SCard
- Unlimited personal profiles
- Connected to Sirius & Vega
- Full HD Images and videos recorder integrated
- All functions available from the camera head (NAV)
- Freeze, mirror and gain functions
- Brightness, details, red and blue gains, gamma, color adjustments
- Noise reducer
- Reset to manufacturer settings
- Electronic anti-moire filter for flexible endoscopes
- Automatic white balance

- Color bar generator
- Automatic electronic shutter (1/50 to 1/100000)
- Adjustable or automatic shutter area
- On screen displayed adjustments
- Automatic blemish pixels compensation
- Outputs : DVI, HDSDI, Y/C, Comp, Periph
- Dimensions (W x H x D) : 310 x 136 x 385 mm
- Weight: 4300 g
- Power supply: (90-230 VAC~; 50-60Hz)
- Power consumption: 60VA
- 2T 2.5A 25OV fuses (only fuses marked UR)

### SPECIFICATIONS OF THE CAMERA HEAD

- 3CMOS 1/3 " Full HD sensors
- HD 16-34mm zoom integrated
- Resolution 1920 x 1080 pixels
- 3 fully programmable buttons
- Ergonomic design
- Progressive scan technology
- Ergonomic focus/zoom rings
- Free scope rotation and locking system

- Definition: 1080 linesSensitivity: 5 lux
- Signal/Noise ratio : 54 dB
- Cable length: 3m
- Dimensions (D x H) : 149 x 53 mm
- Weight : 270 g
- Waterproof for cold disinfection\*

### ■ REGULATORY & ENVIRONMENT

- Electrical safety: Class 1, CF type
- Comply with the European standard 93/42/EEC Class I
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating temperature range : +10°C/+40°C
- Operating relative humidity range: 30% à 75%
- Transport and storage temperature range : -10°C / +45°C
- Transport and storage relative humidity range : 20 à 85%
- Operating, transport and storage atmospheric pressure range: 700hPa à 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air oxygen or nitrous oxide.

Art.N°	Description	
S_398_8000	ORION Full HD camera head with integrated HD 16-34mm zoom coupler	
S_398_9000	ORION Full HD CCU, EU	
S_398_9001	ORION Full HD CCU, US	
S_398_9002	ORION Full HD CCU with Full HD recorder integrated, EU	
S_398_9003	ORION Full HD CCU with Full HD recorder integrated, US	
S_K30_1000	Pack Symbioz, EU (Including ORION**, SIRIUS and VEGA)	
S_K30_1001	Pack Symbioz, US (Including ORION**, SIRIUS and VEGA)	
990228	Application SCards pack (Laparoscopy, Hysteroscopy, Cystoscopy, ENT, Arthroscopy, Flexible)	

<sup>\*</sup> See user manual for more information - \*\* With full HD recorder

# 3CCD Full HD camera

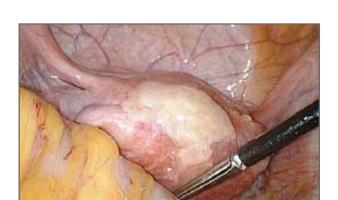




# The most detailed image

- Stunning video rendering
- Optimized settings per surgical application
- Camera head with 3 programmable buttons
- Control of insufflator
- On-screen display of insufflator parameters
- Reliable optical zoom to fit all surgical applications







## SPECIFICATIONS OF THE CAMERA CONTROL UNIT (CCU)

- Digital zoom Up to 2.5x
- Freeze, Mirror and Gain functions
- Menu by Application
- Electronic anti-moire filter for flexible endoscopes
- Digital processing 3 x 19 bits
- Automatic white balance
- 5 languages (English, French, German, Spanish, Italian)
- Color bar generator
- Modification of the red and the blue gain
- Color Matrix 12 axes
- Automatic saving of the adjusted parameters
- Automatic electronic shutter (1/50 to 1/100 000)
- Adjustable shutter area
- On screen displayed adjustments
- Text generator with keyboard connexion
- Gamma adjustment
- Automatic adjustment of sensitivity to low light (auto exposure control)

- Automatic black level adjustment
- Details adjustment
- Digital Noise Reduction: OFF / LOW / HIGH
- Two peripheral triggerings
- Reset to manufacturer settings
- Automatic compensation function for blemish pixels
- Size of the control unit: W: 300mm; D: 311mm; H: 125 mm
- Weight of the control unit: 2500 g
- 1 DVI-D output
- 2 HD-SDI outputs: 0.8 V [P-P] / 75 ohms SMPTE292M
- 1 RGB output: 3x0.7 V [P-P] & 0.3V [P-P] / 75 ohms
- 1 Y/C output: Y: 1.0 V [P-P] / 75 ohms, C: 0.286 V [P-P] (NTSC), C:300 Vp-p V [P-P] (PAL) / 75 ohms Sync Negative
- 1 VBS output: 1.0 V [P-P] / 75 ohms Sync Negative
- Power supply: (110-230 VAC ~; 50 60Hz)
- Power consumption: 45 VA
- 2 T 2.5A 250 V fuses (Only fuses marked UR)
- Continuous Service

### I SPECIFICATIONS OF THE CAMERA HEAD

- Ultra small camera head with its micro prism technology
- Sensor: 3 CCD 1/3" (16/9 "wide screen format acquisition")
- Progressive Scan Technology
- 1080p resolution HDTV format: Resolution: 1920\* 1080 pixels
- 14 bits processing
- Ergonomic focus ring
- Free scope rotation and locking system
- 3 Programmable buttons

- Definition: 1080 linesSensitivity: 1,5 lux
- Signal / Noise ratio : 70dBCable length: 3 meters
- C-Mount
- Size of the sensor: 37\*50\*95 mm
  Weight of the sensor: 250 g
  Waterproof for cold disinfection\*

### **REGULATORY & ENVIRONMENT**

- Electrical safety: Class 1, BF type
- Comply with the European standard 93/42/EEC Class I
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- ullet Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_397_9000	Digital FULL HD 16/9 3CCD CCU, EU
S_397_9001	Digital FULL HD 16/9 3CCD CCU, US
S_397_8000	Digital FULL HD 16/9 3CCD camera head, C-mount
S_097_0001	24mm HD coupler, C-mount, scope holder
S_097_0002	24mm HD coupler, C-mount, scope holder, with high torque focus ring
S_413024	16-34mm HD Zoom coupler, C-mount, scope holder
S_701004	18mm beamsplitter 90°, C-mount, rotatable head, without eyepiece
700206	Medical keyboard, soakable, QWERTY, PS2

<sup>\*</sup> See user manual for more information

# 3CCD HD camera

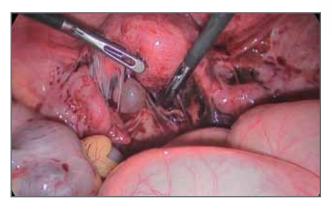


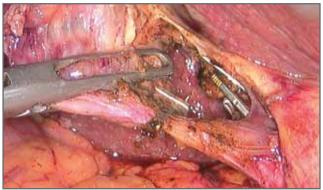


# Optimal image quality

- Outstanding image quality
- Menu by applications and user's profiles
- On-Screen display menu
- Ergonomic design of camera head
- Camera head with 2 programmable buttons
- Control of peripheral devices







### ■ SPECIFICATIONS OF THE CAMERA CONTROL UNIT (CCU)

- On screen displayed adjustments
- Adjustable shutter area
- Automatic mecanical shutter (1/50 to 1/100 000)
- Backlight function for arthroscopy
- Electronic anti-moire filter for flexible endoscopes
- Video enhancement
- Modification of the red and the blue gain
- Gamma adjustment
- 5 languages (English, French, German, Spanish, Italian)
- Menu per application
- Color bar generator
- Automatic white balance
- Automatic saving of the adjusted parameters

- 2 remote control outputs (Jack 2.5 and 3.5mm)
- Reset to manufacturer settings
- Size of the control unit: W: 300mm; D: 300mm; H: 66 mm
- Weight of the control unit: 2500 g
- 1 DVI-D high resolution SXGA output (1280\*1024 pixels)
- 1 RGB-S video output (3x0,7Vcc/& 0,3Vcc/75Ω)
- 1 Y/C video outputs (1 Vcc & 0,3 Vcc / 75Ω Sync Negative)
- 1 composite video outputs (1 Vcc  $/ 75\Omega$ )
- Power supply: (110-230 VAC ~ ; 50 60Hz)
- Power consumption: 45VA
- Two T 800 mÅ 250 V fuses (Only fuses marked UR)
- Continuous Service

### SPECIFICATIONS OF THE CAMERA HEAD

- Ultra small camera head with its micro prism technology
- Scanning (624 lines/50Hz)PAL, (525 lines/60Hz)NTSC
- Sensor: 3 CCD 1/4" (4/3" format acquisition)
- C-Mount
- Resolution: 3 x (752 x 582) PAL; 3 x (768 x 494) NTSC
- Definition: 1024 lines
  Sensitivity: 3 lux
  Ergonomic focus ring

- Free scope rotation and locking system
- 2 programmable buttonsSignal / Noise ratio: 60 dB
- Size of the sensor: L = 80mm;  $\emptyset = 32$  mm
- Weight of the sensor: 250 gCable length: 3,60 meters
- Waterproof for cold disinfection\*

### ■ REGULATORY & ENVIRONMENT

- Electrical safety: Class 1, BF type
- Comply with the European standard 93/42/EEC Class I
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_368_9000	Digital HD 3CCD CCU, PAL, DVI output
S_368_9001	Digital HD 3CCD CCU, NTSC, DVI output
S_367_8000	Digital HD 3CCD camera head, C-mount, PAL
S_367_8001	Digital HD 3CCD camera head, C-mount, NTSC
S_367_0002	18mm HD coupler, C-mount, scope holder
S_367_0003	18mm HD coupler, C-mount, scope holder, with high torque focus ring
S_413024	16-34mm HD zoom coupler, C-mount, scope holder

<sup>\*</sup> See user manual for more information

# 3CCD camera





# The classic 3CCD model

- Impressive image quality
- Menu by applications and user's profiles
- On-Screen display menu
- Ergonomic design of camera head
- Camera head with 2 programmable buttons
- Control of peripheral devices







Insufflators

# **VIDEO CAMERAS**

### SPECIFICATIONS OF THE CAMERA CONTROL UNIT (CCU)

- On screen displayed adjustments
- Adjustable shutter area
- Automatic electronic shutter (1/50 to 1/100 000)
- Backlight function for arthroscopy
- Electronic anti-moire filter for flexible endoscopes
- Video enhancement
- Modification of the red and the blue gain
- Gamma adjustment
- 5 languages (English, French, German, Spanish, Italian)
- Menu per application
- Color bar generator
- Automatic white balance

- Automatic saving of the adjusted parameters
- 2 remote control outputs (Jack 2.5 and 3.5mm)
- Reset to manufacturer settings
  Size of the control unit: W: 300mm; D: 300mm; H: 66 mm
- Weight of the control unit: 2500 g
- 1 RGB-S video output (3x0,7Vcc/& 0,3Vcc/75Ω)
- 1 Y/C video outputs (1 Vcc & 0,3 Vcc  $/ 75\Omega$  Sync Negative)
- 1 composite video outputs (1 Vcc  $/ 75\Omega$ )
- Power supply: (115-230 VAC ~; 50 60Hz)
- Power consumption: 45VA
- $\bullet$  Two T 800 mÅ 250 V fuses (Only fuses marked UR)
- Continuous Service

### SPECIFICATIONS OF THE CAMERA HEAD

- Ultra small camera head with its micro prism technology
- Scanning (624 lines/50Hz)PAL, (525 lines/60Hz)NTSC
- Sensor: 3 CCD 1/4"
- C-Mount
- Resolution: 3 x (752 x 582) PAL; 3 x (768 x 494) NTSC
- Definition: 750 lines • Ergonomic focus ring
- Free scope rotation and locking system
- 2 programmable buttons

- Sensitivity: 3 lux
- Signal / Noise ratio : 60 dB
- Silicone medical grade cable, no shape memory, easy to roll up, high resistance
- Size of the sensor: L = 80mm;  $\emptyset = 32$  mm
- Weight of the sensor: 250 g • Cable length: 3,60 meters
- Waterproof for cold disinfection\*

### ■ REGULATORY & ENVIRONMENT

- Electrical safety: Class 1, BF type
- Comply with the European standard 93/42/EEC- Class I
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_367_9000	Digital 3CCD CCU, PAL,
S_367_9001	Digital 3CCD CCU, NTSC
S_367_8000	Digital HD 3CCD camera head, C-mount, PAL
S_367_8001	Digital HD 3CCD camera head, C-mount, NTSC
S_367_0002	18 mm HD coupler, C-mount, scope holder
S_367_0003	18 mm HD coupler, C-mount, scope holder, with high torque focus ring
S_413024	16-34mm HD Zoom coupler, C-mount, scope holder

<sup>\*</sup> See user manual for more information

## 1CCD camera

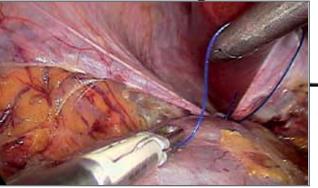
SOPRO **184** 



# Performance and simplicity

- Available with regular and pendular sensor
- Compatible with rigid and flexible endoscopes
- Outstanding image quality
- Multidisciplinary
- Intuitive interface
- Direct computer link through USB to be used with Sopro Imaging medical software







### I SPECIFICATIONS OF THE CAMERA CONTROL UNIT (CCU)

- Automatic video settings detection mode
- Automatic white balance with i technology
- Anti-moiré filter for flexible endoscopes
- Automatic electronic shutter (1/50 à 1/100 000)
- Video enhancement
- Intuitive menu with navigation wheel
- Menu by applications and user's profile
- Modification of the red and the blue gain
- Adjustable shutter area
- Gamma adjustment
- 5 languages (English, French, German, Spanish, Italian)
- Reset manufacturer settings
- Color bar generator
- Automatic saving of the adjusted parameters

- 1 remote control output
- 1 RGBS video output (3 x 0,7 Vcc / & 0,3 Vcc / 75Ω Sync Negative)
- 1 Y/C video output (1 Vcc & 0,3 Vcc / 75Ω Sync Negative)
- 1 composite video output (1 Vcc  $/ 75\Omega$ )
- 1 USB2 output
- 2 digital SDI outputs (option)
- Size of the control unit: W: 300mm; D: 300mm; H: 66 mm
- Weight of the control unit: 1500 g
- Power supply: (110-230 VAC ~; 50/60 Hz)
- Power consumption: 25 VA
- Two T 800 mA 250V fuses (only fuses marked UL)
- Continuous service

### ■ SPECIFICATIONS OF THE STANDARD CAMERA HEAD

- Sensor: CCD 1/4" high sensitivity
- Resolution: (752 x 582) PAL; (768 x 494) NTSC
- Sensitivity: 2 lux
- Free scope rotation and locking system
- 2 fully programmable buttons (white balance, capture of images or videos, gamma, details,...)
- Waterproof camera head for cold disinfection\*
- Cable length: 3 meters
- C-Mount
- Size of the sensor: L: 87 mm; Ø: 30 mm
- Weight of the sensor: 210 g

### SPECIFICATIONS OF THE PENDULAR CAMERA HEAD

- Sensor: CCD 1/4" high sensitivity
- Resolution: (752 x 582) PAL; (768 x 494) NTSC
- Sensitivity: 2 lux360° quick-lock system
- 1 fully programmable wheel

- Waterproof camera head for cold disinfection\*
- Cable length: 3 meters
- Integrated coupler: F12 or F15 mm
  Size of the sensor: L: 80 mm; Ø: 32 mm
- Weight of the sensor: 110 g

### ■ REGULATORY & ENVIRONMENT

- Electrical safety: Class 1, BF type
- Comply with the European standard 93/42/EEC Class I
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -20°C / +40°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_184_9100	CCU PAL/NTSC, USB2 output, SIM software (trial version) - EU
S_184_9101	CCU PAL/NTSC, USB2 output, SIM software (trial version) - US
S_184_9102	CCU PAL/NTSC, USB2 output, SIM software (trial version), 2 SDI outputs - EU
S_184_9103	CCU PAL/NTSC, USB2 output, SIM software (trial version), 2 SDI outputs - US
S_184_8100	1CCD camera head, PAL, C-Mount
S_184_8101	1CCD camera head, NTSC, C-Mount
S_084_0001	18.5 mm coupler, C-Mount, scope holder
S_084_0007	13mm coupler, C-Mount, scope holder
See us	1CCD pendular camera head, PAL or NTSC, 12.3 or 15 mm integrated coupler

<sup>\*</sup> See user manual for more information

1CCD camera with 120 W\* LED light source



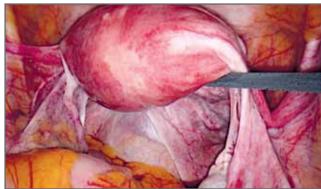


# The perfect match between light and image

- Fully automatic
- Great image quality
- User-friendly
- Smart and automated functions thanks to i technology
- Compatible with both rigid and flexible endoscopes
- Eco-friendly and powerful LED light source







### SPECIFICATIONS OF THE CAMERA CONTROL UNIT (CCU)

- Automatic video settings detection
- Automatic electronic shutter (1/50 à 1/100 000)
- Video enhancement

- Electronic anti-moire filter for flexible endoscopes
- Continuous service



### SPECIFICATIONS OF THE LIGHT SOURCE

- LED technology
- Light intensity of a 120W Xenon light source
- LED lifetime: up to 50 000 hours
- Color temperature: ≥ 4 500° K

### SPECIFICATIONS OF THE CAMERA HEAD

- Sensor: CCD 1/4" high sensitivity
- Resolution: (752 x 582) PAL; (768 x 494) NTSC
- Definition: 500 lines Sensitivity: 2 lux
- Signal / noise ratio: 52 dB Ergonomic focus ring
- Free scope rotation and locking system

- C-mount
- 2 ergonomic buttons
- Waterproof for cold disinfection
- Dimensions: L: 87 mm; Ø: 30 mm
- Weight: 210 g Cable length: 3 meters

### ■ GENERAL SPECIFICATIONS

- Dimensions (W  $\times$  H  $\times$  D) : 300  $\times$  66  $\times$  300 mm
- Weight: 2400 g
- 1 Y/C video output (1 Vcc & 0.3 Vcc  $/ 75\Omega$  Sync Negative)
- 1 composite video output (1 Vcc  $/ 75\Omega$ )

- Power supply: (100-230 VAC ~ ; 50/60 Hz)
- Power consumption: 86 VA
- Two T 800 mA 250 V fuses (only fu marked UL)
- Safety: Class 1, BF type applied part

### ■ REGULATORY & ENVIRONMENT

- Electrical safety: Class 1, BF type
- Comply with the European standard 93/42/EEC Class I
- Comply with the international standards IÉC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
  Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -20°C / +40°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_K16_1000	Pack DUO with CCU + PAL sensor + 18.5mm coupler
S_K16_1001	Pack DUO with CCU + NTSC sensor + 18.5mm coupler
S_K16_1009	Pack DUO with CCU + PAL sensor + 13mm coupler
S_084_0007	13mm coupler, C-Mount, scope holder
402046	Olympus light source adapter for DUO by Sopro

1CCD USB camera







### I SPECIFICATIONS OF THE USB CAMERA HEAD

- Sensor: CCD 1/4" high sensitivityAutomatic video setting detection
- Resolution: (752 x 582) PAL; (768 x 494) NTSC
- Definition: 470 linesSensitivity: 2 lux
- Signal/Noise Ratio: 52 dB
- Automatic electronic shutter: (1/50 to 1/100 000)
- Adjustable shutter areaAutomatic white balance
- Video enhancement
- Modification of the video parameters
- Automatic saving of the adjusted parameters
- Electronic anti-moire filter for flexible endoscopes
- 2 programmable buttons allowing: Freeze, record, white balance, anti-moire filter activation

- Immersible USB connector
- Virtual Camera Control Unit:(Automatic White Balance, video parameters, Flexible or rigid applications, Shortcuts)
- Automatic detection of the colour temperature according to the used light source
- Size of the sensor: L = 87 mm,  $\emptyset = 30 \text{ mm}$
- Weight of the sensor: 210 gCable length: 3 meters
- 1 USB 2.0 output
- Power supply: 5 V DC
- Power consumption: 2.5 VA
- Waterproof for cold disinfection\*
- Continuous Service

# RECOMMENDED COMPUTER CONFIGURATION FOR SOPRO IMAGING SOFTWARE

- Operating system: Windows 7Processor: Intel Core2
- RAM: 2 GbHard disk: 1 Tb
- USB ports: 4 USB 2.0 Hi-Speed ports

- Graphics Card: with NVIDIA or ATI chipset / 512 MB of unshared video RAM with support for DirectX 9 or higher
- USB chipset: Intel or NEC
- Screen Resolution: 1280 x 1024 or higher

### REGULATORY & ENVIRONMENT

- Electrical safety: Class 1, BF type
- Comply with the European standard 93/42/EEC Class I
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +35°C
- $\bullet$  Operating Relative Humidity range: 30 to 75 %
- $\bullet$  Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_181_0011	UBICAM, USB2 stand alone solution, PAL, C-mount, SIM software (test version)
S_181_0015	UBICAM, USB2 stand alone solution, NTSC, C-mount, SIM software (test version)
S_084_0001	18.5mm coupler, C-mount, scope holder
505026	Sopro Imaging Medical license
S_K10_2006	UBICAM PLUS PAL: Ubicam + coupler + one licence of Sopro Imaging Medical software
S_K10_2007	UBICAM PLUS NTSC: Ubicam + coupler + one licence of Sopro Imaging Medical software

<sup>\*</sup> see user manual for more information

# UBIPACK.

Full consulting room pack













# A unique concept

- All in one package designed for consulting room
- Outstanding image quality
- Easy to use
- Powerful imaging software
- Better communication with patients

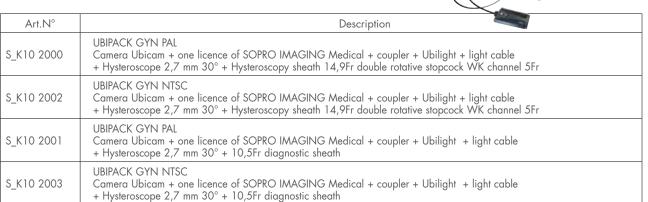




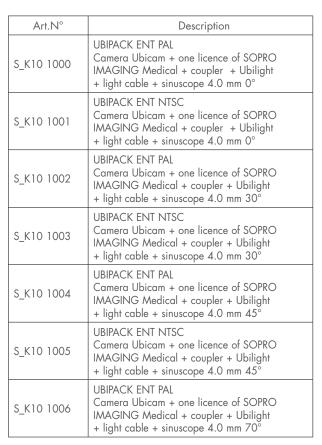
Monitors

# 2 VIDEO CAMERAS









Art.N°	Description
S_K10 1007	UBIPACK ENT NTSC  Camera Ubicam + one licence of SOPRO IMAGING Medical + coupler + Ubilight + light cable + sinuscope 4.0 mm 70°
S_K10 1008	UBIPACK ENT PAL Camera Ubicam + one licence of SOPRO IMAGING Medical + coupler + Ubilight + light cable + otoscope 4.0 mm 0°
S_K10 1009	UBIPACK ENT NTSC  Camera Ubicam + one licence of SOPRO  IMAGING Medical + coupler + Ubilight  + light cable + otoscope 4.0 mm 0°
S_K10 1010	UBIPACK ENT PAL Camera Ubicam + one licence of SOPRO IMAGING Medical + coupler + Ubilight + light cable + otoscope 3.0 mm 0°
S_K10 1011	UBIPACK ENT NTSC Camera Ubicam + one licence of SOPRO IMAGING Medical + coupler + Ubilight + light cable + otoscope 3.0 mm 0°
S_K10 1013	UBIPACK ENT Camera Ubicam + one licence of SOPRO IMAGING Medical + coupler with Ulyss - PAL + Ubilight + light cable + Ulyss
S_K10 1014	UBIPACK ENT Camera Ubicam + one licence of SOPRO IMAGING Medical + coupler with Ulyss - NTSC + Ubilight + light cable + Ulyss

Art.N°	Description
S_K10 1015	UBIPACK PAL Camera Ubicam + one licence of SOPRO IMAGING Medical + coupler + Ubilight + light cable
S_K10 1016	UBIPACK NTSC Camera Ubicam + one licence of SOPRO IMAGING Medical + coupler + Ubilight + light cable

## **ACCESSORIES FOR VIDEO CAMERAS**



ArtNo.	Description
S_097_0001	24mm HD coupler C-mount, scope holder with locking capacity for S_397 camera head weight : 60g waterproof
S_097_0002	24mm HD coupler C-mount, scope holder with locking capacity for S_397 camera head with high torque focus ring for Arthroscopy weight: 60g waterproof



ArtNo.	Description
S_067_0004	22mm coupler C-mount, scope holder with locking capacity, for S_169 & S_162 camera heads weight: 44g waterproof
S_067_0002	22mm coupler C-mount, scope holder with locking capacity, for S_169 & S_162 camera heads with high torque focus ring for Arthroscopy weight: 44g waterproof



ArtNo.	Description
S_367_0002	18mm HD coupler C-mount, scope holder with locking capacity, for S_367 & S_368 camera heads weight: 54g waterproof
S_367_0003	18mm HD coupler C-mount, scope holder with locking capacity, for 367 & S_368 camera heads with High torque focus ring for Arthroscopy weight: 54g waterproof



ArtNo.	Description
S_084_0001	18,5mm coupler C-mount, scope holder with locking capacity for S_165 & S_184 camera heads weight: 20g waterproof
S_084_0007	13mm coupler C-mount, scope holder with locking capacity for S_165 & S_184 camera heads weight: 20g waterproof

## ACCESSORIES FOR VIDEO CAMERAS



ArtNo.	Description
S_701004	18mm Beamsplitter 90° C-mount, 360° rotatable head with locking capacity, without eyepiece, for S_397 camera head waterproof



ArtNo.	Description
S_413024	16-34mm HD Zoom coupler C-mount, scope holder for all camera heads waterproof



ArtNo.	Description
700145	USB2 Amplifier 5 meters long for S_181



ArtNo.	Description
700206	Medical Keyboard soakable, QWERTY, PS2, for S_397 video camera & USB300/200 archiving systems



ArtNo.	Description
302027	Storz/Olympus Adapter for Flexible Scopes



ArtNo.	Description
302032	Pentax Adapter for Flexible Scopes



ArtNo.	Description
302030	Fujinon Adapter for Flexible Scopes

## **ACCESSORIES FOR VIDEO CAMERAS**



ArtNo.	Description
009002	Footswitch for S_162 with USB2 output (jack connector)

ArtNo.	Description
009009	USB footswitch for Sopro Imaging Medical

ArtNo.	Description
700381	USB2 Amplifier (5m) for UBICAM

ArtNo.	Description
002158	Small USB extension (0.8m) for UBICAM



	ArtNo.	Description	
1	S_397_1000	Communication kit for SOPRO 397 and SOPRO 640 (30 & 45L)	

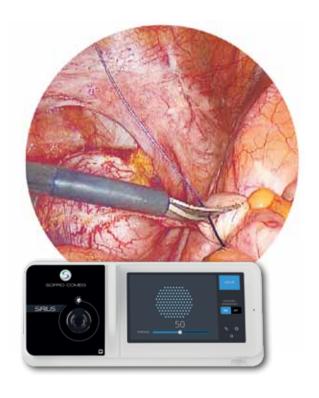
ArtNo.	Description
700337	Jack-USB adaptor for S_184 camera and Sopro Imaging Software



# SOPRO COMEG



# SOPRO COMEG



SIRIUS, LED light source	р34
SOPRO 230, 218 and 210 Xenon light sources	p36
SOPRO 284 180W LED light source	p38
SOPRO 281 100W LED light source	p40
Light sources accessories	p42
Light cables	p42
Light cables accessories	p43

# SYMBIOZ SIRIUS



# Simply powerful

- Latest LED generation for a powerful light in any applications under any circumstances
- Automatic adjustment of light intensity according to your clinic
- Remote controlled from ORION camera head
- Noiseless and ecofriendly





### SPECIFICATIONS

• LED technology

LED lifetime : up to 40.000 hColor temperature : 6000°K

- Light intensity of a 300W Xenon light source
- Automatic adjustment of the light intensity
- Anti-blooming feature with light cable detection
- Standby mode
- Electronic iris

- Service menu with key information
- Automatic over temperature protection
- 7" 16/9 touchscreen with intuitive interface
- Compatible with Storz and Olympus type light cables
- Dimensions (W x H x D) : 310 x 136 x 385 mm
- Weight: 5000 g
- Power consumption: 160 VA
- Power supply : (90-230 VAC~ ; 50-60Hz)

### REGULATORY & ENVIRONMENT

- Electrical protection: Class 1, CF type
- Comply with the European standard 93/42/EEC Class IIa.
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- $\bullet$  Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_298_0001	SIRIUS LED light source, EU
S_298_0002	SIRIUS LED light source, US
S_K30_1000	Pack Symbioz, EU (Including ORION*, SIRIUS and VEGA)
S_K30_1001	Pack Symbioz, US (Including ORION*, SIRIUS and VEGA)

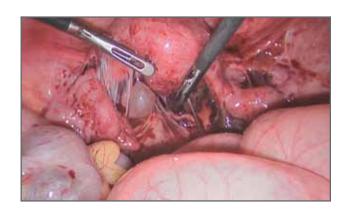
# Xenon light sources





# High intensity light sources

- Anti blooming system with light cable detection
- Display of light intensity (0-100%) and age of the bulb
- Infrared filter protection for light cable





#### ■ COMMON SPECIFICATIONS

- Antiblooming system with light cable detection
- Light intensity adjustment with touch buttons
- Light intensity and bulb age displayed on LCD screen
- Stand-by button (Mechanical iris)
- Easy access to the bulb
- Infrared filter: the light cable can stay in the light source without any risk of over heating
- Bulb lifetime: 500 hours
- Dimensions: D: 300mm; W: 311mm; H: 125 mm
- Weight: 5 kg
- Power supply: (100 230 VAC ~ / 50 60 Hz)
- 2 Fuses T 4A. (UL/CSA only)
- Continuous service

#### **DEDICATED SPECIFICATIONS**

	Sopro 230	Sopro 218	Sopro 210
Nominal operating power	300W	180W	100W
Color T°	6200°K	5800°K	5800°K
Power consumption	485VA	450VA	240VA

#### REGULATORY & ENVIRONMENT

- Electrical protection: Class 1, CF type
- Comply with the European standard 93/42/EEC Class IIa.
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_230_0002	300 Watts, EU Power Cord - Storz® adapter
S_230_0007	300 Watts, EU Power Cord - Olympus® adapter
S_230_0005	300 Watts, US Power Cord - Storz adapter
S_230_0009	300 Watts, US Power Cord - Olympus adapter
S_218_0007	180 Watts, EU Power Cord - Storz adapter
S_218_0010	180 Watts, EU Power Cord - Olympus adapter
S_218_0006	180 Watts, US Power Cord - Storz adapter
S_218_0011	180 Watts, US Power Cord - Olympus adapter
S_210_0003	100 Watts, EU Power Cord - Storz adapter
S_210_0004	100 Watts, EU Power Cord - Olympus adapter
S_210_0002	100 Watts, US Power Cord - Storz adapter
S_210_0006	100 Watts, US Power Cord - Olympus adapter
See us	300, 180 and 100W, EU or US power cords, Wolf® adapter

### 180W\* LED light source





### Brighten your world!

- As powerful as a 180W Xenon light source
- LED lifespan up to 50,000 hours
- Daylight color temperature\*\* for optimum contrast
- OLED data display







 $<sup>^{\</sup>star}$ equivalent to 180 Watts Xenon light Source

<sup>\*\*6500°</sup>K

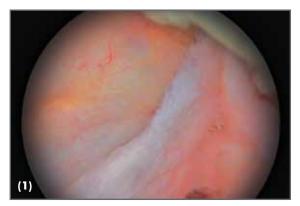
#### **SPECIFICATIONS**

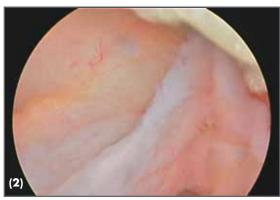
- LED technology
- Light intensity of a 180W Xenon light source
- Color temperature: 6 500°KLED lifetime: up to 50.000h
- Intuitive adjustment of the light intensity
- Light intensity memory
- Anti-blooming feature with light cable detection
- Standby mode
- Electronic iris

- Automatic over temperature protection
- 2.7" OLED screen
- Size (D x W x H) : 300 x 300 x 66 mm
- Weight: 3 000 g
- Power consumption: 140 VA
- Input voltage: 100-230 VAC / 50-60 Hz
- Compatible with Storz type light cables (Olympus in option)
- Continuous service

#### ■ REGULATORY & ENVIRONMENT

- Electrical protection: Class 1, CF type
- Comply with the European standard 93/42/EEC Class IIa.
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.





Comparison of homogeneity of light between a Xenon (1) and the Sopro 284 LED (2) light source

Art.N°	Description
S_284_0001	LED light source (light intensity of a 180W Xenon light source) - EU power cord - Storz type
S_284_0002	LED light source (light intensity of a 180W Xenon light source) - US power cord - Storz type
S_284_0003	LED light source (light intensity of a 180W Xenon light source) - EU power cord - Olympus type
S_284_0004	LED light source (light intensity of a 180W Xenon light source) - US power cord - Olympus type

100W\* LED light source





### Designed for consulting room

- Well designed and compact
- Accurate colors depiction
- Uniform light
- LED lifespan up to 50 000 hours







#### SPECIFICATIONS

- LED technology
- Light intensity of a 100W Xenon light source
- LED lifetime: 50.000 hours (in advised conditions of use)
- Color temperature: > to 4500°K
- Light cable input: Storz only
- Stand-by mode with light intensity memory
- Antiblooming system with light cable detection
- Automatic over temperature protection

- Low heat generation
- Manual adjustment of the light intensity
- Dimensions: D: 180mm; W: 95mm; H: 35mm
- Weight: 320g
- Power supply: (100 240 VAC ~ / 50 60 Hz)
- Power consumption: 30 VA
- Transformer: 12V DC
- Continuous service

#### ■ REGULATORY & ENVIRONMENT

- Electrical protection: Class 1, BF type
- Comply with the European standard 93/42/EEC Class I
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description	
S_281_0001	LED light source with external transformer	
402046	Olympus ® connector for S_281 LED light source	

#### **ACCESSORIES FOR LIGHT SOURCES**

#### **Replacement Bulbs**



ArtNo.	Description
006003	300W Xenon bulb
006005	180W Xenon bulb



ArtNo.	Description	
006004	100W Xenon bulb	

#### LIGHT CABLES



- Compatible with all light sources and autoclavable at 134°
- Reinforced sheath
- Universal model delivered without connector

Ø	L.	ArtNo.	
4.8mm	3	S_700382	
4.011111	2.3	S_700384	
3.5*	3	S_700216	
	2.3	S_700215	

<sup>\*</sup>For scope diameter <4mm

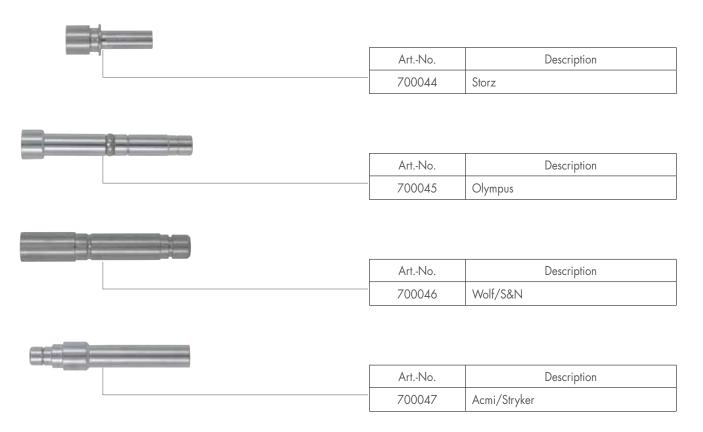
ArtNo.	Description	
700602	90° connector Eases the use of the camera and the light cable together Prevents damages to the light cable	

#### ACCESSORIES FOR LIGHT SOURCES

#### **Endoscope side connectors**

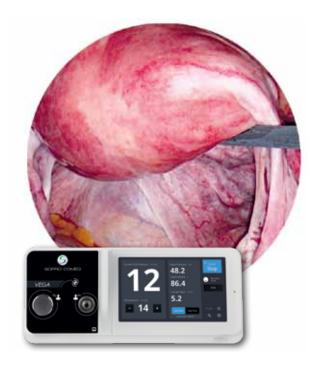


#### Light source side connectors





### SOPRO COMEG



VEGA - 45L insufflator	p46
SOPRO 640 - 45L, 30L and 20L insufflators	p48
Accessories	n50

Insufflators

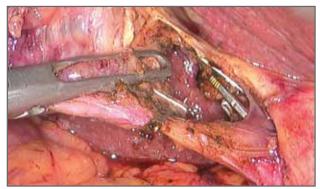




### Security for the patient is the key word of this new generation

- Powerful to keep the pneumoperitoneum inflated under any conditions
- Automatic flow rate adjustment to keep set pressure
- CO2 available directly displayed in minutes\*
- External relief valve against cross contamination





#### I SPECIFICATIONS

- ullet Maximum flow : 451/min in high flow mode 21/min in low flow mode
- Automatic flow rate management according to leakages
- Patented autonomy feature: Displays in minutes the remaining time of insufflation
- Set cavity pressure: From 0 to 24 mmHg (accuracy of 1 mmHg)
- 7" 16/9 touchscreen with intuitive interface
- Clear messages displayed both on touchscreen and main monitor
- External dessuflation valve for over pressure to avoid cross contamination
- External control from Orion camera head
- Purge feature
- Smooth design for easy disinfection

- Automatic low flow/high flow switching (option)
- Specific setting for Bariatric surgery
- Automatic calibration of the device
- Real time display of bottle pressure or central CO2 supply pressure
- Internal pre heating system
- CO2 gaz bottle compatible (max. 60bars)
- CO2 central gaz supply compatible (3.5 to 4bars)
- Disposable or reusable tubings
- Dimensions (W x H x D) : 310 x 136 x 385 mm
- Weight: 8000 g
- Power supply : (90-230 VAC~ / 50-60Hz)
- Power consumption : 75 VA
- 2x 2.5 AT 250V time-lag fuses UR
- Continuous service

#### ■ REGULATORY & ENVIRONMENT

- Electrical safety: Class 1
- Comply with the European standard 93/42/EEC Class IIa
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- $\bullet$  Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_698_0001	VEGA 45L/min insufflator, EU
S_698_0002	VEGA 45L/min insufflator, US
S_K30_1000	Pack Symbioz, EU (Including ORION*, SIRIUS and VEGA)
S_K30_1001	Pack Symbioz, US (Including ORION*, SIRIUS and VEGA)

Insufflators







### The best option on the market for safer surgery

- Management of the insufflator from the camera head
- Feedback of key data on the monitor
- Display of the remaining time before the end of the CO2 bottle
- Enhanced security with no loss of pressure, no cross contamination and no risk of mis programming







#### COMMON SPECIFICATIONS

- Maximum flow: 45 I/min in high flow mode 2 I/min in low flow mode
- Automatic flow rate management according to leakages
- Patented autonomy function: display in real time the remaining time of insufflation
- Blow-off pressure: 0 to 24 mmHg (accuracy of 1 mmHg)
- Clear messages displayed with sound alarms
- External desufflation valve for over pressure to avoid cross contamination
- 5 languages (French, Italian, Spanish, English, German)
- Option of automatic low/high flow switching
- 5.7-inch LCD screen showing: immediate flow, intra-cavity pressure, blow-off pressure, total volume of CO2 used, chronometer
- Automatic calibration of the device

- Real time display of bottle pressure or central gas supply pressure
- Internal pre heating system
- Thumbwheel navigation and validation system
- CO2 gas bottle compatible (max 70 bars)
- CO2 central gas supply compatible (max 7 bar)
- Open-ended spanner intended for CO2 high-pressure hose connector
- Disposable or reusable tubings
- Dimensions: L=300mm, D=340mm, H=145mm
- Weight: 5 kg
- Main power cable
- Power supply: (100 230 VAC ~ / 50 60 Hz)
- Power consumption: 40VA
- 2 x 2.5 AT 250V time-lag fuses UR
- Continuous Service

#### DEDICATED SPECIFICATIONS

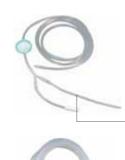
	45L device	30L device	20L device
Maximum flow	45L/min	30L/min	20L/min
CO2 bottle purge	✓	✓	✓
Clear messages	✓	✓	✓
Preventive maintenance message	$\checkmark$	✓	✓
Bottle & wall supply	✓	✓	
Autonomy feature	$\checkmark$	✓	
External control via SORO 397 camera head	✓	✓	

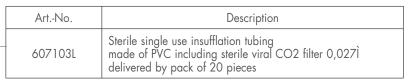
#### ■ REGULATORY & ENVIRONMENT

- Electrical safety: Class 1
- Comply with the European standard 93/42/EEC Class Ila
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating Temperature range: +10°C / +40°C
- $\bullet$  Operating Relative Humidity range: 30 to 75 %
- $\bullet$  Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
  - Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_640_4002	45 L - EU Power Cord - with autonomy feature
S_640_4004	45 L - US Power Cord - with autonomy feature
S_640_3005	30 L - EU Power Cord - with autonomy feature
S_640_3008	30 L - US Power Cord - with autonomy feature
S_640_2002	20 L - EU Power Cord
S_640_2004	20 L - US Power Cord

#### ACCESSORIES







ArtNo.	Description
016006L	Sterile viral CO2 filter single use, 0,027ì delivered by pack of 50 pieces

#### ■ CO2 CONNECTION



ArtNo.	Description
017036L	Flexible hose for high pressure bottle (60bars) US-DIN 477-1, n°6, 1 meter FOR EUROPE
017037L	Flexible hose for high pressure bottle (60bars) US- UNF 7/16" US, 1 meter FOR USA
S_391 000 023	Flexible hose for high pressure bottle (60bars) US- IT (ISO5145), 1 meter FOR ITALY

ArtNo.	Description
-	Central gas supply hoses (Max 7 bars) Contact us for more details

#### ■ CO2 BOTTLE CONNECTIONS



ArtNo.	Description
017023	Pin Index connection for DIN 477-1 n°6
017034	Flexible hose for high pressure bottle (60bars) US- IT (ISO5145), 1 meter FOR ITALY



### SOPRO COMEG



### SOPRO COMEG



SOPRO	670 - Irrigation	and suction	pump for	Arthroscopy	p54
SOPRO	672 - Irrigation	pump for G	ynecology		p56
SOPRO	673 - Irrigation	and suction	pump for	Laparoscopy	p58

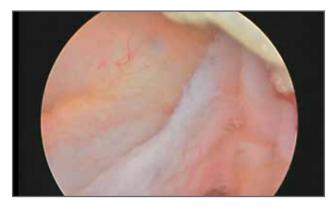
Irrigation and suction pump for arthroscopy

SOPRO **670** 



### The perfect fluid management device

- Irrigation and suction flow management
- Quick leakages compensation
- Intuitive navigation system with wide LCD interface and thumbwheel
- Pneumatic foot remote control
- Noiseless





#### SPECIFICATIONS

- Maximum pressure (accuracy 5 mmHg): 120 mmHg
- Automatic management of the flow rate
- Irrigation flow management from 0 to 1.5L/mn
- Suction flow management from 0 to 100%
- Compact suction management system
- Noiseless
- Automatic Canula selection
- Flush function with foot remote control
- Quick compensation of leakages
- Automatic overpressure release system

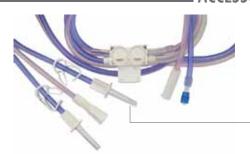
- 5"7 LCD screen
- Browser system and validation by knob
- Visual and sound alarms
- Pneumatic foot pedal
- Dimensions: L=300mm, D=340mm, H=145mm
- Weight: 8 Kg
- Power supply: (100 230 VAC ~ / 50 60 Hz)
- Power consumption: 80VA
- Protection by fuse: 2 x 2.5 A Temporised fuses 250V UR
- Continuous service

#### REGULATORY & ENVIRONMENT

- Electrical safety: class 1, BF type
- Comply with the European standard 93/42/EEC Class IIa
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- $\bullet$  Operating temperature range: +10° C / +40° C
- Operating Relative Humidity range: 30% to 75%
- $\bullet$  Transport and storage Temperature range: -40° C / +70° C
- $\bullet$  Transport and storage Relative Humidity range: 10 to 100 %
- Operating, Transport and Storage Atmospheric pressure range: 500 hPa to 1,060 hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_670_0001	Irrigation and suction pump for arthroscopy - EU Power Cord
S_670_0002	Irrigation and suction pump for arthroscopy - US Power Cord

#### ACCESSORIES



ArtNo.	Description
S_670_003	Sterile single use irrigation / suction tubing set (15 pieces)



ArtNo.	Description
009007	Pneumatic remote control



ArtNo.	Description
700268	Lagoon 250, suction regulator 0 to -200mbar (0 to -150mmHg), maximum flow 201/min, NF connection, autoclavable 134°C
700269	Bacteriological filters (100 pieces)

### Irrigation pump for gynecology

SOPRO **672** 



### Proven effectiveness

- Automatic pressure and flow control for optimal view during uterus dilatation
- Fluid balance to reduce intravasation risk\*
- Permanent intra-uterine pressure monitoring
- Short learning curve





#### **SPECIFICATIONS**

Pressure range: 15-150 mm Hg
Flow range: 30-500 ml/min
High pressure safety: 200 mm Hg
Power supply: 100-250 V~/50-60Hz
Max. power consumption: 45 VA

• Max. current consumption: 100 V/60 Hz: 289 mA

• 110 V/60 Hz: 310 mA • 240 V/50 Hz: 190 mA

Classifications: Protection Class I, Type BF, IP 41
Dimensions (w x h x d): 265 x 137 x 390 mm

• Weight: approx. 4 kg

#### ■ REGULATORY & ENVIRONMENT

- Electrical safety: class 1, BF type
- Comply with the European standard 93/42/EEC Class Ila
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating temperature range: +10° C / +40° C
- Operating Relative Humidity range: 30% to 75%
- $\bullet$  Transport and storage Temperature range: -40° C / +70° C
- Transport and storage Relative Humidity range: 10 to 100 %
- Operating, Transport and Storage Atmospheric pressure range: 500 hPa to 1,060 hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_672_0001	Irrigation pump for Gynecology - EU power cord

#### **ACCESSORIES**



ArtNo.	Description
700402	Reusable Tube set, 20 uses (10 pcs)
700401L	Sterile Tube set with Luer Lock connection, disposable (10 pcs)
700403L	Sterile Tube set with safe Lock connection, disposable (10 pcs)



ArtNo.	Description
700404L	Tube set for outflow, disposable (10 pcs)

ArtNo.	Description
700405	Bottle scale, (for fluid balance)
700425	Bemis container 3L, (2 pcs)

Irrigation and suction pump for laparoscopy

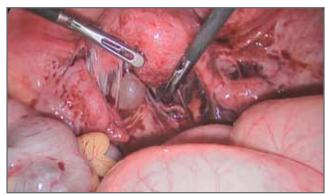
SOPRO **673** 



### Simple and accurate

- Simple and intuitive use
- Easy loading of the tubing
- High safety through a specific pressure control
- Suction for liquid and/or gas included
- Noiseless





#### SPECIFICATIONS

- Max. flow rate irrigation: 1.8 l/min
  Max flow rate suction: 1.8 l/min
  Max pump capacity: 400 mmHg
  Suction: Between -50 kpa and -60 kpa
- Suction noise level: 57 dB(A)
  Power supply: 100-240V~/50-60Hz
- Main fuse: T 0.5 A T10 A slow blow, IEC 127/UL recognized
- Max. power consumption: 55 VAMax. current: 100V: 500 mA
  - 115V: 440 mA 230V: 230 mA
- Safety: Manufactured and tested acc. to EN 60601-1/IEC 60601-1, EMC: EN 60601-1-2 / IEC 60601-1-2
- Dimensions (w x h x d):  $280 \times 137 \times 408 \text{ mm}$
- Weight: approx. 5.9 kgs

#### REGULATORY & ENVIRONMENT

- Electrical safety: class 1, BF type
- Comply with the European standard 93/42/EEC Class Ila
- Comply with the international standards IEC 60601-1; IEC 60601-2-18; IEC 60417 and EN 980
- Operating temperature range: +10° C / +40° C
- Operating Relative Humidity range: 30% to 75%
- $\bullet$  Transport and storage Temperature range: -40° C / +70° C
- Transport and storage Relative Humidity range: 10 to 100 %
- Operating, Transport and Storage Atmospheric pressure range: 500 hPa to 1,060 hPa
- Not protected against waterfalls (IPXO)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_673_0001	Irrigation and suction pump for laparoscopy

#### **ACCESSORIES**



ArtNo.	Description
700401L	Sterile tube set with luer lock connection disposable (10 pces)
700403L	Sterile tube set with safe lock connection disposable (10 pces)
700402	Reusable tube set 20 uses



ArtNo.	Description
700421	Tube set suction, reusable 20 uses
700422	Tube set vacuum, reusable 20 uses



ArtNo.	Description
700423L	Hydrophobic filter
700425	Bemis container, (2 pces)
700424	Coil of wire for Bemis container



### SOPRO COMEG



Operating room	b62
Consulting room	- p64
Accessories	) 565

#### OPERATING ROOM



### PANASONIC 26" FULL HD medical grade surgical display

- Full HD widescreen
- High quality colors and accurate image reproduction
- Multi HD inputs/outputs
- Ergonomic and hygienic design optimized for operating room use

#### SPECIFICATIONS

- Viewing area (diagonal): 26" TFT AM LCD technology
- Resolution ( H x W): 1920 x 1080
- Luminance: 500 cd/m2 • Contrast ratio: 1400:1 • Response speed: 8ms

- Video inputs: 2 x DVI-D, 1 x HD-SDI, 1 x RGB, 1 x S-video, 1 x Comp.
- Video outputs: 1 x DVI-D, 1 x HD-SDI, 1 x RGB, 1 x S-video, 1 x Comp.
- OSD language: English / Spanish / Itallian / German / French / Japanese
- Weight: 7.7 kg

#### ■ REGULATORY

- Electrical safety: Class 1
- Comply with the European standard 93/42/EEC Class I
- Comply with the international standards IEC 60601-1-1, 60601-1-2, CCC, FCC-B P CAN/CSA, ICES-001, VCCI Class B

Art.N°	Description
S_700427	Panasonic 26'' Full HD medical grade surgical display

#### OPERATING ROOM



### BARCO 19" HD medical grade surgical display

- High-grade image quality
- Optimum viewing comfort
- Easy cleaning and disinfection

#### SPECIFICATIONS

- Viewing area (diagonal): 19" TFT AM LCD technology
- Resolution ( H x W): 1280 x 1024
- Aspect ratio: 5:4 • Luminance: 280 cd/m2 Contrast ratio: 600:1

- Response speed: 14ms
- Video inputs
- Video outputs
- OSD language: English/Spanish/German/French
- Weight: 8.6 kg

#### ■ REGULATORY & ENVIRONMENT

- Electrical safety: Class 1
- Comply with the European standard 93/42/EEC Class I
- Comply with the international standards IEC 60601-1-1, 60601-1-2, CCC, FCC-B P CAN/CSA, ICES-001, VCCI Class B

Art.N°	Description
S_700056	Barco 19" HD medical grade surgical display

#### CONSULTING ROOM



### NEOVO 22" Full HD diagnostic display

- **Full HD resolution**
- Eco smart sensor for low power consumption
- Built-in speakers
- Highly resistant optical glass

#### SPECIFICATIONS

- Panel Type TFT LCD
- Max. Resolution: SXGA 1280 x 1024
- Pixel Pitch: 0.294mm
- Brightness: 250cd/m2 (Typical)
- Contrast Ratio: 600:1 (Typical)
- Viewing Angle: (H/V) 140°/130° (Typical)
- Input Analog: 15-Pin D-Sub
- Digital: 29-Pin DVI-D
- S-Video: 4-Pin Mini Din S-Video

- CVBS: CVBS Jack
- Connector Power: 3-Pin AC Plug
- Thickness: 3.0mm (0.18")
- Reflection Rate: <1%
- Transmission Rate: >96%
- Power: AC 100 240V, 50 60Hz
- Consumption <48W (On) <4W (Stand-by) <2W (Off)
- Dimensions: (W x H x D) 444 x 419 x 175mm
- Weight: 7.9Kg

#### REGULATORY

- Safety & EMI FCC, UL/CUL, EPA,
- TUV/BAURT, CE, TCO 95,
- BSMI, ISO 13406-2, GOST
- Art.N° Description Neovo 22" Full HD diagnostic display S 700545

#### **ACCESSORIES**

ArtNo.	Description
700057	Desktop stand for 19" Barco monitor with VESA mounting

ArtNo.	Description
700311	Protection glass for 19" Barco monitor

ArtNo.	Description
700320	Extension cable for 19" Barco monitor to be used with long arm medical cart

ArtNo.	Description
700376	Extension cable for 26" Panasonic monitor to be used with long arm medical cart

ArtNo.	Description
700577	Protection glass for 26" Panasonic monitor



### SOPRO COMEG

# ARGO COMMUNICATION SYSTEM

### COMMUNICATION SYSTEM

Technology at your fingertips!





### COMMUNICATION SYSTEM

#### Remote

- Control all connected device from one unique place
- Feedback of essential information from connected devices

### Imaging

- Patient and doctor database management
- Full HD still images and video recordings
- Visualization and edition of recorded/imported media
- Reports edition and customization

#### Dicom

- Data recovery from hospital worklist
- Media export/import to or from the PACS
- Dicom viewer

### Streaming

• Live video and information sharing from the operating room

#### **SPECIFICATIONS**

- Capacitive 22" MVA LCD touch screen
- Resolution: 1920 x 1080Contrast ratio: 3000:1
- Intel Core i7
- 8GB RAM
- 320 GB HDD
- Remote software included to remote control and get feedback from ORION, SIRIUS and VEGA
- Imaging software (option) to record Full HD images and video and manage a patient database
- DICOM software to export data to the PACS
- STREAMING software to send real time information and video on the network.

Description
ARGO - Intuitive communication system with REMOTE and IMAGING features
DICOM option for ARGO
STREAMING option for ARGO



### SOPRO COMEG



# 8 ARCHIVING SYSTEMS

USB	medical	recorders	5			. p72
DVD	medical	recorder		 	 	l . p73

### **ARCHIVING SYSTEMS**

### Medical recorders



### USB medical recorders

- Intuitive use
- Medical grade



#### **USB 200**

Records videos and still images from standard medical video sources to a USB flash drive or a USB hard disk

Records high definition videos and still images from medical video sources to internal hard drive, external USB drive or network drive

#### SPECIFICATIONS

- LCD monitor: 2.5", color (for video confirmation only)
- Buttons: Sealed membrane, fluid resistant
- Video inputs: 1 x S-video, 1 x Comp
- Video outputs: 1 x S-video, 1 x Comp
- Video In/Out: PAL or NTSC formats
- Audio In/Out: Standard 3.5mm stereo phone jacks
- Footswitch: Hands-free capture standard 3.5mm minijack
- Image formats: JPEG, TIFF, PNG, DICOM (upgrade required)
- Images sizes: 1024 x 768; 800 x 600; 640 x 480 pixels
- Video formats: MPEG2 ( DVD quality)
- Medias: USB flash drives or external USB hard drive
- Dimensions: 240 x 200 x 63mm
- Weight: 1.7kg

- LCD monitor: 2.5", full color (for video confirmation only)
- Buttons: Sealed membrane, fluid resistant
- Video inputs: DVI, RGB (via adapter), HD-SDI, S-video, Comp
- Video outputs: DVI, RGB (via adapter)
- Footswitch: Hands-free capture standard 3.5mm minijack
- Image formats: JPEG, TIFF, BMP, DICOM
- Networking: RJ4510 / 100 / 1000 Ethernet
- Internal storage: USB flash drive, USB hard drive, network drive
- Video formats: H.264 / MPEG (1080, 720, NTSC, PAL)
- Dimensions: 240 x 211 x 63mm
- Weight: 1.8kg

#### REGULATORY

- CE 93/42/EEC
- UL 60601-1, IEC 60601-1, IEC 60601-1-2
- CSA C22.2 No.601.1, E 306417

Art.N°	Description
S_700091	M-USB200 for video and still images
009002	Foot remote control

• FCC Part 15, FDA Class 1, RoHS, PSE

Art.N°	Description
S_700211	M-USB 300 for full HD video and still images
009002	Foot remote control

#### Medical recorder



**ARCHIVING SYSTEMS** 

### Medical grade DVD recorder

User friendly recorder

#### SPECIFICATIONS

- Recording System: DVD Recording, NTSC/PAL Switchable
- Recording Format: Video: MPEG-2 compression
- Audio: Dolby Digital format
- Recordable Media: DVD+RW (2.4x and 4x speed)
- Recording Time: HQ Mode: 60 minutes
- Composite Input: BNC x2
- S-Video Input: 4-pin DIN x2, with loop-through
- Y/C input

- S-Video Output: 4-pin DIN x1
- Y/C output
- Remote Control: RS-232C x1, D-sub 9-pin • Dimensions: 212 x 128.5 x 382 mm
- Weight: 6 kg
- Power supply: (110-230 VAC~; 50 -60Hz)
- Power Consumption: 35 W

#### ■ REGULATORY & ENVIRONMENT

• Medical Standards: EN60601-1, EN60601-1-2, UL60601-1, CSA C22.2 No.60601.1

Art.N°	Description
S_700077	Medical DVD recorder



## 9 IMAGING SOFTWARE

# 9

### **IMAGING SOFTWARE**

#### Medical Imaging software





### A powerful software

- A unique communication tool
- Dedicated to diagnosis aid and patient management
- Multi-languages format
- Sleek new design en enhanced ergonomics

#### RECOMMENDED COMPUTER CONFIGURATION

#### Windows® minimum configuration required

- Operating system: Windows XP Pro SP3
- Processor: Intel® Pentium IV 1.3GHz
- RAM: 512MB
- Hard disk: 250GB
- USB ports: 2 USB2 Hi-Speed ports
- Graphic card: 32MB RAM unshared memory compatible DirectX 9
- USB Chipset: Intel® or NEC® / RENESAS®
- Screen resolution: 1024 x 768

#### Windows® recommended configuration

- Operating system: Windows 7 Pro SP1
- Processor: Intel Core 2
- RAM: 2GB
- Hard disk: 1TB
- USB ports: 4 USB2 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

#### SOPRO IMAGING MEDICAL SOFTWARE

- Patient management
- Image and video recording and editing
- Image annotation and drawings
- 700m
- Medical reports (Word, Pdf)
- Export your images and videos to DVD, USB, mail, ...
- Only once license required when connected to the network
- Art.N° Description

  505026 Sopro Imaging Medical license

  990145 CD-ROM: Sopro Imaging medical software







Operating room	р80
Premium carts	
Basic carts	
Accessories	p82
Consulting room	p84

OPERATING ROOM

#### Premium carts



#### Premium & short arm

- 1x Fixed shelf
- 1x Adjustable shelf
- 1x Drawer
- 1x Long arm on central pivot
- 1x Short arm on central pivot
- 1x 5m Careflex Power Cord
- 7x 60cm connection power cables

Art.N°	Description
700598	Premium cart with long and short arms
700624	Premium cart with long and short arms + transformer



#### **Premium**

- 1x Fixed shelf
- 1x Adjustable shelf
- 1x Drawer
- 1x Long arm on central pivot
- 1x 5m Careflex Power Cord
- 7x 60cm connection power cables

Art.N°	Description
700597	Premium cart with long arm
700625	Premium cart with long arm + transformer

#### OPERATING ROOM

#### Basic carts



#### **Basic & short arm**

- 1x Fixed shelf
- 1x Adjustable shelf
- 1x Drawer
- 1 x articulated short arm
- 1x Fixed mount for flat panel
- 1x 5m Careflex Power Cord
- 7x 60cm connection power cables

Art.N°	Description
700596	Basic cart with fixed screen and short arm
700627	Basic cart with fixed screen and short arm + transformer



#### Basic

- 1x Fixed shelf
- 1x Adjustable shelf
- 1x Drawer
- 1x Fixed mount for flat panel
- 1x 5m Careflex Power Cord
- 7x 60cm connection power cables

Art.N°	Description
700595	Basic cart with fixed screen
700628	Basic cart with fixed screen + transformer

#### **ACCESSORIES**



ArtNo.	Description
700359	Pull out shelf for keyboard



ArtNo.	Description
700621	Camera holder (stainless steel)



ArtNo.		Description
700622	Cable	hook (stainless steel)



ArtNo.	Description
700619	Bottle holder 140mm (rear side cart)



ArtNo.	Description	
700317	Shelf (320x450)	

Insufflators

## MEDICAL CARTS

#### ACCESSORIES



ArtNo.	Description
700361	Foot switch panel for undercarriage



ArtNo.	Description
700618	Flexible scope holder



ArtNo.	Description
700617	Serum holder



ArtNo.	Description
700309	Power cord C13-C14 (60cm)

ArtNo.	Description
700616	EQP connection lead 60cm

#### CONSULTING ROOM



#### Ubicart

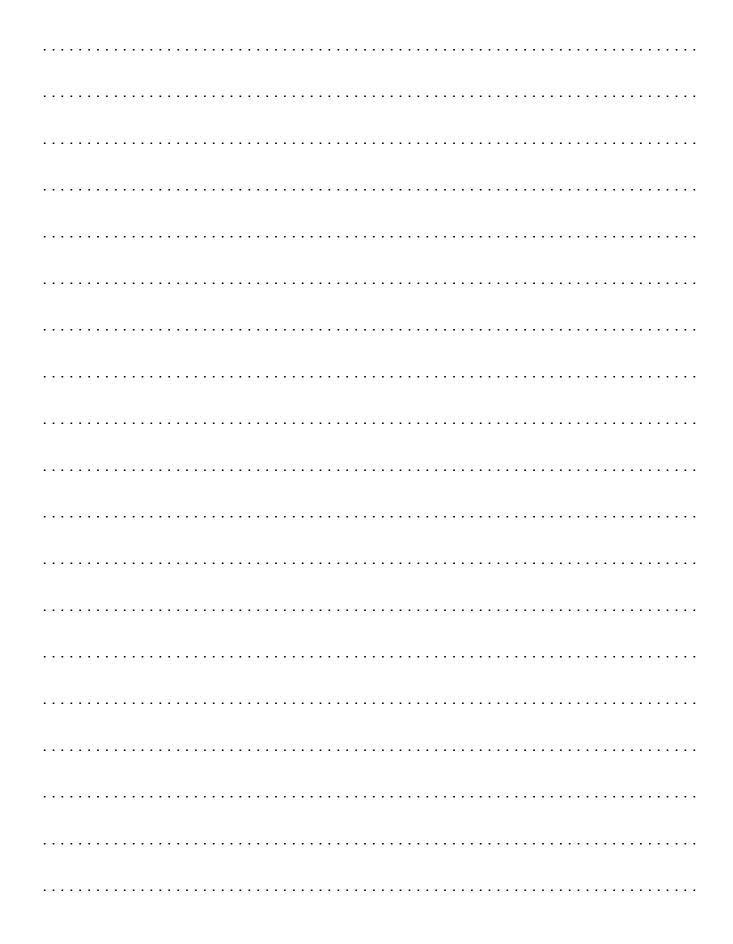
#### **Ubicart**

- 1x 4 way Power strip1 x Serum holder
- 1 x Camera holder
- 1 x Light cable holder
- 1x Isolation transformer (option)

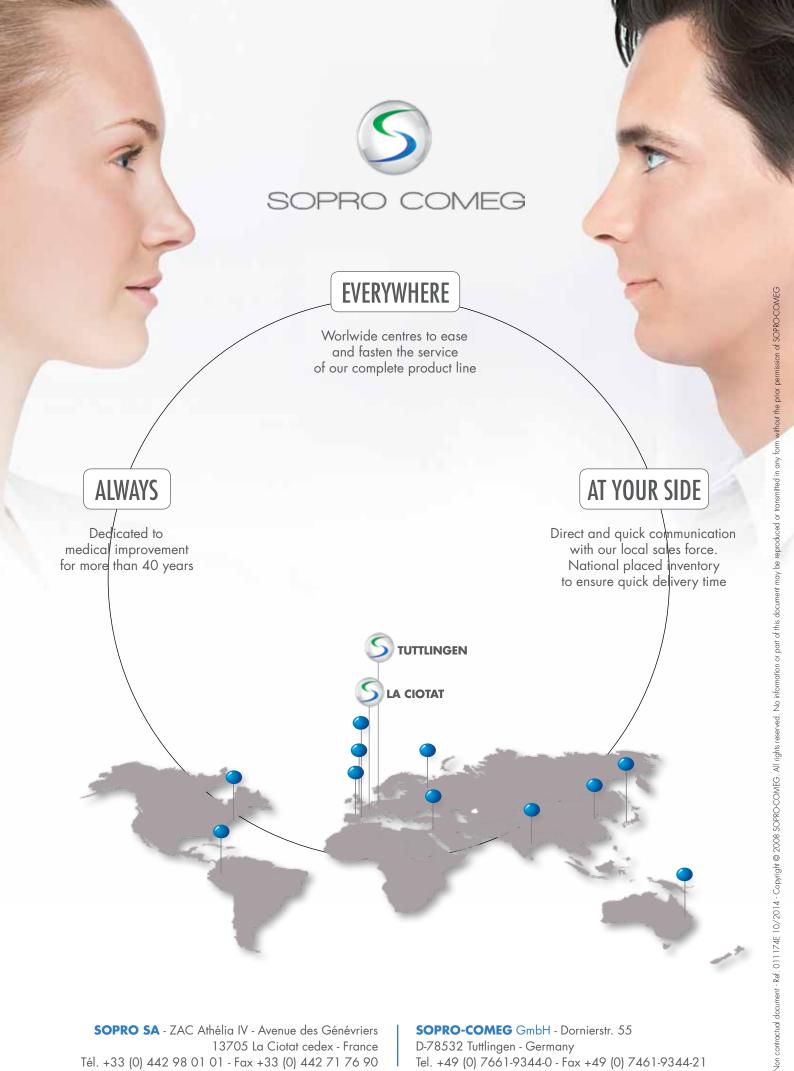
Art.N°	Description
700362	UBICART including power strip, serum, camera and light cable holders.
700418	UBICART including power strip, serum, camera, light cable holders and isolation transformer
707039	Extra shelf (450 x 320 mm) for UBICART



### **NOTES**







**SOPRO SA** - ZAC Athélia IV - Avenue des Génévriers 13705 La Ciotat cedex - France Tél. +33 (0) 442 98 01 01 - Fax +33 (0) 442 71 76 90 **SOPRO-COMEG** GmbH - Dornierstr. 55 D-78532 Tuttlingen - Germany Tel. +49 (0) 7661-9344-0 - Fax +49 (0) 7461-9344-21