ENDOSCOPY EQUIPMENT EXPERTISE
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<td>5</td>
</tr>
</tbody>
</table>
XENON

Multi connector option:
Wolf, Storz, Olympus, ACMI

LIGHTSOURCES
XENON 180W / 300W

- Low noise, low heat conduction
- Electronical light control via buttons
- Simple lamp replacement
- Waterproof touch control panel

Multi connector option: Wolf, Storz, Olympus, ACMI
## Series Description

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xenon X 180-M</td>
<td>180 Watt, Storz adapter, manual light intensity control</td>
</tr>
<tr>
<td>Xenon X 180-MT</td>
<td>180 Watt, turret adapter, manual light intensity control</td>
</tr>
<tr>
<td>Xenon X 180-A</td>
<td>180 Watt, Storz adapter, automatic light intensity control</td>
</tr>
<tr>
<td>Xenon X 180-AT</td>
<td>180 Watt, turret adapter, automatic light intensity control</td>
</tr>
<tr>
<td>Xenon X 300-M</td>
<td>300 Watt, Storz adapter, manual light intensity control</td>
</tr>
<tr>
<td>Xenon X 300-MT</td>
<td>300 Watt, turret adapter, manual light intensity control</td>
</tr>
<tr>
<td>Xenon X 300-A</td>
<td>300 Watt, Storz adapter, automatic light intensity control</td>
</tr>
<tr>
<td>Xenon X 300-AT</td>
<td>300 Watt, turret adapter, automatic light intensity control</td>
</tr>
</tbody>
</table>

### Technical Data

**Lamp**
- Xenon arc lamp: 180 W/ 300 W
- Daylight quality, 5600 K
- Lifetime: 500 hr (expected)

**Light guide connection**
- Storz, Wolf, Olympus, turret adapter

**System**
- Power supply: 100-240 V AC, 50-60 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay 6,3 AT (I=1500A)
- Power consumption: 250 VA (180W) / 400 VA (300W)

**Video In (opt.)**
- 1x Video (BNC) (automatic Version only)

**Standard**
- Protection class: I
- Application part: Type BF
- Classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

**Dimensions**
- (WxHxD): 355 x 120 x 340 mm
- Weight: 8,0 kg (180W) / 12,5 kg (300W)

**Delivery contains**
- Light source, mains cable, user manual, BNC cable (optional)

**Options**
- Automatic light intensity control
- Lamp life & intensity with 7-segment display
- Multi connector option, turret:

### Technical Data

- Ø max. 5,9mm
- min. 4mm

- Exclusively pictured version!

---

**Light Sources**

**Xenon 180W / 300W**

---

**Technical Data**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø max. 5,9mm</td>
<td>min. 4mm</td>
</tr>
</tbody>
</table>

- Exclusively pictured version!
• Low noise, low heat conduction
• Electronical light control via buttons
• Simple lamp replacement
• Waterproof touch control panel

Multi connector option: Wolf, Starz, Olympus, ACMI
## Series Description

**Xenon X 300-LED**
- 300 Watt xenon lamp - standard Storz connector, Backup LED lamp - standard Storz connector, manual or automatic light intensity control
- 300 Watt xenon lamp - turret multi connector, Backup LED lamp - standard Storz connector, manual or automatic light intensity control

### Technical Data

| Lamp (main)                        | · Xenon arc lamp: 300W  
|                                   | · Daylight quality, 5600 K  
|                                   | · Lifetime: 500 hr (expected)  
| Lamp (backup)                     | · White LED lamp  
|                                   | · Daylight quality, 6500 K  
|                                   | · Lifetime: > 20,000 hr  
| Light guide connection           | · Storz, Wolf, Olympus, or turret adapter  
| System                            | · Power supply: 100-240 VAC, 50-60 Hz  
|                                   | · Fuses: 2 Fine fuses, 5x20 mm, delay 6,3 AT (I<sub>t</sub>=1500A)  
|                                   | · Power consumption: 185 VA/ 280 VA/ 370 VA  
| Video In (opt.)                   | · 1x Video (automatic Version only)  
| Standard                          | · Protection class: I  
|                                   | · Application part: Type BF  
|                                   | · IEC 601-1, EN 60601-1; classification acc. 93/42/EEC: I  
| Dimensions                        | · (WxHxD): 355 x 120 x 340 mm  
|                                   | · Weight: 9,5kg/ 9,5kg/ 11kg  
| Delivery contains                 | · Light source, mains cable, User manual, BNC cable (optional)  
| Options                           | · Automatic light intensity control  
|                                   | · Lamp life & intensity with 7-segment display  
|                                   | · Multi connector option, turret:  

### Technical Drawings

- **Wolf**
- **ACMI**
- **Olympus**
- **Storz**

Exclusively pictured version!
LIGHTSOURCES

LED 1000 - HIGH INTENSITY LIGHTSOURCE

- Low noise, low heat conduction
- Electronical light control via buttons
- Pure daylight quality
- Waterproof touch control panel
## LIGHTSOURCES

### LED 1000 - HIGH INTENSITY LIGHTSOURCE

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED 1000-A</td>
<td>Storz adapter, automatic light intensity control</td>
</tr>
<tr>
<td>LED 1000-A</td>
<td>Wolf adapter, automatic light intensity control</td>
</tr>
<tr>
<td>LED 1000-A</td>
<td>Olympus adapter, automatic light intensity control</td>
</tr>
</tbody>
</table>

### Technical Data

**Lamp**
- Daylight quality, 6500 K
- Lifetime: > 20.000 hr

**Light guide connection**
- Storz, Wolf adapter

**System**
- Power supply: 100/240 VAC (+/- 10%), 47...63 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay 6,3 AT (I=1500A)
- Power consumption: max. 100 VA (+/- 10%)

**Video In (opt.)**
- 1x Video (VBS) (automatic Version only)

**Standard**
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

**Dimensions**
- (WxHxD): 355 x 103 x 253 mm
- Weight: 4,5 kg

**Delivery contains**
- Light source, mains cable, user manual, BNC cable (optional)

### Options

Intensity displayed as clear value

![Intensity Display](image)
PHASER® Technology Included
- Turret multi connector (optional)
- Low noise, low heat conduction
- Pure daylight quality

Multi connector option:
Wolf, Storz, Olympus, ACMI
LIGHTSOURCEs

LED 3000 - HIGH INTENSITY LIGHTSOURCE

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED 3000</td>
<td>Storz adapter, automatic light intensity control</td>
</tr>
<tr>
<td>LED 3000</td>
<td>Wolf adapter, automatic light intensity control</td>
</tr>
<tr>
<td>LED 3000</td>
<td>Olympus adapter, automatic light intensity control</td>
</tr>
<tr>
<td>LED 3000 T</td>
<td>Turret adapter, automatic light intensity control</td>
</tr>
</tbody>
</table>

**Technical Data**

**Light guide connection**
- Storz, (standard connection):

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**Turret, multi connector (optional):**
- Wolf
- ACMl
- Olympus
- Storz Ø max. 5,9mm min. 4mm

Exclusively pictured version!

**Lamp**
- Daylight quality, 6000K (±/- 500K)
- Lifetime: ≤30,000 hr

**System**
- Power supply: 100/240 VAC (±/- 10%), 47..63 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay 6,3 AT (I=1500A)
- Power consumption: max. 200 VA (±/- 10%)

**Video In**
- 1x Video (VBS)

**Standard**
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C
- Class 1 laser product

**Dimensions**
- (WxHxD): 355 x 120 x 340 mm
- Weight: 10 kg

**Delivery contains**
- Light source, mains cable, user manual, BNC cable
LIGHTSOURCES
HALOGEN HL 150

- Small compact design
- Exchangable lightguide adapter
- Mechanical diaphragm
- Low heat conduction
<table>
<thead>
<tr>
<th>Technical Data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamp</td>
<td>· 150 W (1 Halogen reflector lamp), 15 V</td>
</tr>
<tr>
<td>Light guide connection</td>
<td>· Storz, Wolf, Olympus, ACMI</td>
</tr>
<tr>
<td>Intensity control</td>
<td>· Stepless, mechanical diaphragm</td>
</tr>
<tr>
<td>System</td>
<td>· Power supply: 115/230 VAC (+/- 10%) switchable</td>
</tr>
<tr>
<td></td>
<td>· Fine fuses: 5x20mm (230 VAC: 1,6 A</td>
</tr>
<tr>
<td></td>
<td>· Power consumption: max. 160 VA</td>
</tr>
<tr>
<td>Standard</td>
<td>· Protection class: I</td>
</tr>
<tr>
<td></td>
<td>· Application part: Type BF</td>
</tr>
<tr>
<td></td>
<td>· classification acc. 93/42/EEC: I</td>
</tr>
<tr>
<td></td>
<td>· EN ISO 13485</td>
</tr>
<tr>
<td>Dimensions</td>
<td>· (WxHxD): 175 x 82,5 x 202 mm</td>
</tr>
<tr>
<td></td>
<td>· Weight: app. 2,5kg</td>
</tr>
<tr>
<td>Delivery contains</td>
<td>· Light source, mains cable, user manual</td>
</tr>
</tbody>
</table>
LIGHTSOURCES
HALOGEN HL 250

- Mechanical diaphragm
- Softstart electronic
- Exchangable lightguide adapter
- Low heat conduction
# LIGHTSOURCES
## HALOGEN HL 250

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HL 250</td>
<td>250 Watt, 2 lamps, 1 output</td>
</tr>
<tr>
<td>HL 250 DUO</td>
<td>250 Watt, 2 lamps, 2 outputs (no simultaneous use)</td>
</tr>
</tbody>
</table>

### Technical Data

- **Lamp**
  - 250 W (1 or 2 Halogen reflector lamps), 24 V
  - 3400 K
- **Light guide connection**
  - Storz, Wolf, Olympus, ACMI
- **System**
  - Power supply: 115 or 230 VAC (+/- 10%) switchable | 47...63 Hz
  - 2 fine fuses, 5x20 mm (230 VAC: 2 A | 115 VAC: 4 A)
  - Power consumption: max. 260 VA
- **Standard**
  - Protection class: I
  - Application part: Type BF
  - classification acc. 93/42/EEC: I
  - EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C
- **Dimensions**
  - (WxHxD): 355 x 120 x 340 mm
  - Weight: 8 kg
- **Delivery contains**
  - Light source, mains cable, user manual
LED STROBOSCOPIC LIGHTSOURCE
VOCALED

- For laryngostroboscopic practices
- Small and compact design
LED STROBOSCOPIC LIGHTSOURCE
VOCALED

Technical Data

Handpiece
- White LED lamp, comparable 100 Watt
- 6500 K (+/- 500 K)
- Lifetime: 20000 hr
- Connector type: Storz

Standard
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

Features
- Stroboscope light / continuous light
- Stroboscope range: 30 - 1200 Hz
- Automatic stroboscope function
- Slowmotion rate: 0,5 / 1 / 1,5 / 2 Hz
- Brightness control

Dimensions
- Control unit: 202 x 72 x 176 mm (WxHxD); weight: 1,6 kg
- Handpiece: length 120 mm; diameter 30 mm; 0,18 kg

Delivery contains
- Light source, mains cable, user manual, LED handpiece, stethoscope, footswitch (optional)

LED handpiece | Stethoscope | Footswitch (optional)
<table>
<thead>
<tr>
<th>Illuminant</th>
<th>Description</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILO 300W 5H Xenon</td>
<td>300W Xenon lamp, 5-hole inlc. heat transfer compound</td>
<td>125-0008</td>
</tr>
<tr>
<td>ILO 180W</td>
<td>180W Xenon bulb, X 180 ILO standard</td>
<td>770-1008</td>
</tr>
<tr>
<td>ILO 100W</td>
<td>100W Xenon bulb, X 100 ILO standard</td>
<td>770-1001</td>
</tr>
<tr>
<td>Halogen 150W</td>
<td>Halogen lamp 150W, 15V, type: Xenophot HLX 64634, OSRAM</td>
<td>126-0001</td>
</tr>
<tr>
<td>Halogen 250W</td>
<td>Halogen lamp 250W, 24V, type: Typ 13163 ILC, Philips</td>
<td>126-0010</td>
</tr>
<tr>
<td>Halogen 75W</td>
<td>Halogen lamp 75W, 12V, type: Xenophot HLX 64615, OSRAM</td>
<td>126-0003</td>
</tr>
<tr>
<td>Metal Halid bulb</td>
<td>Metal halid bulb X24, 24 Watt</td>
<td>770-0000</td>
</tr>
<tr>
<td>X 50 Spare lamp</td>
<td>X 50 Spare lamp ofr XL50, XE50 eco, X50 with mounting ring</td>
<td>770-0005</td>
</tr>
<tr>
<td>Glass fibre light guides</td>
<td>Diameter</td>
<td>Length</td>
</tr>
<tr>
<td>-------------------------</td>
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</tr>
<tr>
<td>18 LW 35</td>
<td>3,5 mm</td>
<td>1800 mm</td>
</tr>
<tr>
<td>18 LW 48</td>
<td>4,8 mm</td>
<td>1800 mm</td>
</tr>
<tr>
<td>23 LW 35</td>
<td>3,5 mm</td>
<td>2300 mm</td>
</tr>
<tr>
<td>23 LW 48</td>
<td>4,8 mm</td>
<td>2300 mm</td>
</tr>
<tr>
<td>18 LC 35</td>
<td>3,5 mm</td>
<td>1800 mm</td>
</tr>
<tr>
<td>18 LC 48</td>
<td>4,8 mm</td>
<td>1800 mm</td>
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<tr>
<td>23 LC 35</td>
<td>3,5 mm</td>
<td>2300 mm</td>
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<tr>
<td>23 LC 48</td>
<td>4,8 mm</td>
<td>2300 mm</td>
</tr>
<tr>
<td>30 LC 48</td>
<td>4,8 mm</td>
<td>3000 mm</td>
</tr>
<tr>
<td>23 LC 48</td>
<td>4,8 mm</td>
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<tr>
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<td>2300 mm</td>
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<tr>
<td>18 HLC 35</td>
<td>3,5 mm</td>
<td>1800 mm</td>
</tr>
<tr>
<td>18 HLC 48</td>
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<tr>
<td>23 HLC 35</td>
<td>3,5 mm</td>
<td>2300 mm</td>
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<td>23 HLC 48</td>
<td>4,8 mm</td>
<td>2300 mm</td>
</tr>
<tr>
<td>30 HLC 35</td>
<td>3,5 mm</td>
<td>3000 mm</td>
</tr>
<tr>
<td>30 HLC 48</td>
<td>4,8 mm</td>
<td>3000 mm</td>
</tr>
<tr>
<td>23 HLC 35</td>
<td>3,5 mm</td>
<td>2300 mm</td>
</tr>
<tr>
<td>23 HLC 35</td>
<td>3,5 mm</td>
<td>2300 mm</td>
</tr>
<tr>
<td>23 HLC 48</td>
<td>4,8 mm</td>
<td>2300 mm</td>
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<tr>
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<td>2300 mm</td>
</tr>
<tr>
<td>23 HLC 48</td>
<td>4,8 mm</td>
<td>2300 mm</td>
</tr>
<tr>
<td>23 HLC 35</td>
<td>3,5 mm</td>
<td>2300 mm</td>
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<tr>
<td>Adapter source side</td>
<td>Description</td>
<td>Order number</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>input, Storz</td>
<td>Light guide adapter light source side, for LW-, LC-Type</td>
<td>896-0008</td>
</tr>
<tr>
<td>input, Olympus</td>
<td>Light guide adapter light source side, for LW-, LC-Type</td>
<td>896-0009</td>
</tr>
<tr>
<td>input, Wolf</td>
<td>Light guide adapter light source side, for LW-, LC-Type</td>
<td>896-0010</td>
</tr>
<tr>
<td>input, ACMI</td>
<td>Light guide adapter light source side, for LW-, LC-Type</td>
<td>896-0011</td>
</tr>
<tr>
<td>input, Storz HLC</td>
<td>Light guide adapter light source side, for HLC-Type</td>
<td>896-0016</td>
</tr>
<tr>
<td>input, Olympus HLC</td>
<td>Light guide adapter light source side, for HLC-Type</td>
<td>896-0017</td>
</tr>
<tr>
<td>input, Wolf HLC</td>
<td>Light guide adapter light source side, for HLC-Type</td>
<td>896-0018</td>
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<tr>
<td>input, ACMI HLC</td>
<td>Light guide adapter light source side, for HLC-Type</td>
<td>896-0019</td>
</tr>
<tr>
<td>Adapter instrument side</td>
<td>Description</td>
<td>Order number</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------------------------------------------------------------</td>
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<tr>
<td>output, Storz,</td>
<td>Light guide adapter instrument side, for LW-, LC-, HLC-, FM-type</td>
<td>896-0000</td>
</tr>
<tr>
<td>output, Olympus</td>
<td>Light guide adapter instrument side, for LW-, LC-, HLC-, FM-type</td>
<td>896-0001</td>
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<tr>
<td>output, Wolf</td>
<td>Light guide adapter instrument side, for LW-, LC-, HLC-, FM-type</td>
<td>896-0002</td>
</tr>
<tr>
<td>output, ACMI</td>
<td>Light guide adapter instrument side, for LW-, LC-, HLC-, FM-type</td>
<td>896-0003</td>
</tr>
</tbody>
</table>
CAMERAS
EcoCAM 750 - DIGITAL VIDEO CAMERA 1-CCD

- Natural colour reproduction
- Single chip
- Anti-moiree-filter
- High image quality
## Technical Data

### Camera head:
- Aspect ratio: 4:3
- Image sensor: 1/3'' CCD
- Immersive (using the attached cap)

### System
- Power supply: 100/240 VAC, 50-60 Hz
- Fuses: 2 fine fuses, 5x20 mm, delay acting 3,15 AH (I=1500A)
- Power consumption: 20 VA
- Image resolution: PAL 752 x 582/ NTSC 768 x 494
- TV resolution: > 470 lines
- Sensitivity: < 1 lux (1/1.4)
- White balance automatically, with data hold
  - Shutter speed PAL (NTSC): 1/50 (1/60) to 1/100.000 sec

### Video out terminal
- 2x Video; 2x S-Video; 1x Y-Pb-Pr (Component); 1x SDI; 1x USB 2.0

### Standard
- Protection class: I
- Application part: Type BF
- Classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

### Dimensions
- Control unit (WxHxD): 355 x 103 x 253 mm; 4.4 kg

### Delivery contains
- CCU, camera head with 3m cable, mains cable, User manual, Y/C cable, BNC cable

### Video system
- PAL/NTSC

## Options

### Freeze function
- Freeze the image via footswitch

## EcoCAM 750 camera head

- Weight: 80 g
- Size: d= 29 mm; l= 55 mm
CAMERAS
SWIFTCAM - DIGITAL VIDEO CAMERA 1-CCD

- Multilingual on-screen-menu
- Digital zoom
- Camera control with keyboard
- Character generator
CAMERAS

SWIFTCAM - DIGITAL VIDEO CAMERA 1-CCD

Technical Data

Camera head:
- Aspect ratio: 4:3
- Image sensor: 1/3” CCD
- Immersible (using the attached cap)

System
- Power supply: 100/240 VAC, 50-60 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay acting 3,15 AH (I=1500A)
- Power consumption: 20 VA
- Image resolution: PAL 752 x 582/ NTSC 768 x 494
- TV resolution: > 470 lines
- Sensitivity: < 1 lux (1/1.4)
- White balance automatically, with data hold
- Shutter speed PAL (NTSC): 1/50 (1/60) to 1/100.000 sec

Video out terminal
- 2x Video; 2x S-Video; 1x Y-Pb-Pr (Component); 1x SDI; 1x USB 2.0

Standard
- Protection class: I
- Application part: Type BF
- Classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

Dimensions
- Control unit (WxHxD): 355 x 103 x 253 mm; 4.4 kg

Delivery contains
- CCU, camera head with 3m cable, mains cable, User manual, Y/C cable, BNC cable, HDMI - DVI cable (optional), HDMI cable (optional), USB Stick (optional)

Video system
- PAL/NTSC

Series

<table>
<thead>
<tr>
<th></th>
<th>SwiftCAM</th>
<th>SwiftCAM-C</th>
<th>SwiftCAM-D</th>
<th>SwiftCAM-CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-screen-display</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Menu</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Titel generator option PS/2</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Capture module (image, video)</td>
<td>-</td>
<td>x</td>
<td>-</td>
<td>x</td>
</tr>
<tr>
<td>HDMI out</td>
<td>-</td>
<td>-</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Zoom function</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Options

Freeze function
- Freeze the image via push buttons

Remote camera head
- With programmable push buttons (zoom, freeze)

Remote footswitch
- With programmable push buttons

SwiftCAM camera head

Without push buttons
Weight: 80 g
Size: d = 29 mm; l = 55 mm

With push buttons
Weight: 105 g
Size: d = 34 mm; l = 73 mm
CAMERAS
TRISTAR HD - HIGH DEFINITION CAMERA 3-CCD

- Full HD resolution
- High speed shutter
- Multilingual menu
- Remote camera head
## Technical Data

**Camera head:**
- Aspect ratio: 16:9
- Image sensor: 3x 1/3” CCD
- Immersible (using the attached cap)

**System**
- Power supply: 100/240 VAC, 50-60 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay acting 3,15 AH (I=1500A)
- Power consumption: 20 AV
- Image resolution: full HD 1920 x 1080
- TV resolution: > 1000 lines
- Sensitivity: < 3 lux (1/1.4)
- White balance automatically, with data hold
  shutter speed: 1/50 (1/60) to 1/100,000 sec

**Video out terminal**
- 2x HD SDI
- 1x HDMI / DVI
- 1x Y-Pb-Pr (Component)
- 1x Video (PAL / NTSC)
- 1x S-Video (PAL / NTSC)

**Standard**
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

**Features**
- White balance, boost function
- On-screen-menu
- 3 user settings storable
- 2.5 digital zoom
- Freeze function
- Character generator

**Dimensions**
- Control unit: 355 x 103 x 253 mm (WxHxD); 4.5 kg

**Delivery contains**
- CCU, camera head with 4m cable, mains cable, Y/C cable, BNC cable, HDMI - DVI cable, HDMI cable, User manual
- Optional: waterproof keyboard, footswitch

## Options

**Optional accessories**
- Waterproof keyboard
- Footswitch

## TRIstar HD 3-CCD camera head

- Weight: 160 g
- Size: 82 x 53 x 39 mm

With push buttons
CAMERAS
eco HD - HIGH DEFINITION CAMERA 1-MOS

- Full HD resolution
- High speed shutter
- Multilingual menu
- 3 user setting storable
Technical Data

Camera head
- Aspect ratio: 16:9
- Image sensor: 1/3" MOS
- Immersible (using the attached cap)

System
- Power supply: 100/240 VAC, 50-60 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay acting 3,15 AH (I=1500A)
- Power consumption: 21VA
- Image resolution: full HD 1920 x 1080
- TV resolution: > 1000 lines
- Sensitivity: < 3 lux (1/1.4)
- White balance automatically, with data hold
  shutter speed: 1/50 (1/60) to 1/100,000 sec

Connections
- Video out terminal:
  - 1x HDMI
- Other connections:
  - 1 x USB (A) (USB-keyboard)
  - 1 x Remote IN (footswitch)
  - 1 x Remote OUT (videoprinter, videorecorder,...)
  - 1 x RJ45 (Service)

Standard
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

Features
- White balance, boost function
- On-screen-menu
- 3 user settings storable
- 2.5 digital zoom
- Freeze function
- Character generator

Dimensions
- Control unit: 359,4 x 106,2 x 335,2 mm (WxHxD); weight: 4,7 kg

Delivery contains
- CCU, camera head with 3,05m (10ft) cable, mains cable,
  HDMI - DVI cable, HDMI cable, user manual

Options

Optional accessories
- Waterproof keyboard
- Footswitch

Swift 1HD camera head

Weight: approx. 150g
Diameter: 36,5mm
Length: 65,2mm (without grommet)
CAMERAS
SWIFT 1HD - HIGH DEFINITION CAMERA 1-MOS

- Full HD resolution
- High speed shutter
- Multilingual menu
- Remote camera head
CAMERAS
SWIFT 1HD - HIGH DEFINITION CAMERA 1-MOS

Technical Data

Camera head:
- Aspect ratio: 16:9
- Image sensor: 1/3” MOS
- Immersible (using the attached cap)

System
- Power supply: 100/240 VAC, 50-60 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay acting 3,15 AH (I=1500A)
- Power consumption: 20 VA
- Image resolution: full HD 1920 x 1080
- TV resolution: > 1000 lines
- Sensitivity: < 3 lux (1/1.4)
- White balance automatically, with data hold
  shutter speed: 1/50 (1/60) to 1/100.000 sec

Video out terminal
- 1x HDMI / DVI
- 1x Y-Pb-Pr (Component)
- 1x Video (PAL / NTSC)
- 1x S-Video (PAL / NTSC)
- 2x HD SDI (optional)
- LAN (optional)

Standard
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

Features
- White balance, boost function
- On-screen-menu
- 3 user settings storable
- 2.5 digital zoom
- Freeze function
- Character generator

Dimensions
- Control unit: 355 x 103 x 253 mm (WxHxD); 4,5 kg

Delivery contains
- CCU, camera head with 3m cable, mains cable, Y/C cable, BNC cable, HDMI - DVI cable, HDMI cable, user manual

Options

Features
- Image capture, video capture

Optional accessories
- Waterproof keyboard
- Footswitch

Swift 1HD camera head

Weight: 105 g
Size: d= 34 mm; l= 73 mm
With push buttons
CAMERAS
TRISTAR HD - HIGH DEFINITION CAMERA 3-MOS

- Full HD resolution
- High speed shutter
- Multilingual menu
- Remote camera head
## Technical Data

### System
- Power supply: 100/240 VAC, 47...63 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay acting 3,15 AH (I=1500A)
- Power consumption: 20 VA

### Camera:
- Aspect ratio: 16:9
- Image sensor: 3 MOS
- Image resolution: full HD 1920 x 1080
- TV system: Progressive scan 50 / 60 Hz
- Sensitivity: < 3 lux (1/1.4)
- Camera head immersible (using the attached cap)

### Recording (optional)
- Image format: JPG 1920 x 1080
- Video format: Full HD 1920 x 1080; Mpeg-4 (H.264 Codec); Image rate 60fps
- Connection: USB (A)

### Connections
- Video out terminal: Other connections:
  - 2x HD SDI
  - 1x Y-Pb-Pr (Component)
  - 1x Y/C (PAL / NTSC)
  - 1x CVBS (PAL / NTSC)
  - 1 x PS/2 (PS/2-keyboard)
  - 1 x USB (A) (USB-keyboard), optional
  - 1 Remote IN (footswitch)
  - 1 x Remote OUT (videoprinter, videorecorder,...)

### Standard
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

### Features
- Boost function, white balance (white balance automatically, with data hold shutter speed: 1/50 (1/60) to 1/100.000 sec)
- On-screen-menu
- 3 user settings storable
- 2.5 digital zoom
- Freeze function
- Character generator

### Dimensions
- Control unit: 353 x 103 x 253 mm (WxHxD); 4.5 kg

### Delivery contains
- CCU, camera head with 3,25m cable, mains cable, Y/C cable, BNC cable, HDMI - DVI cable, HDMI cable, User manual

## Camera head with push buttons
- Weight: 145 g
- Size: d= 38,5 mm; l= 81 mm

## Options
### Features
- Image capture, video capture

### Optional accessories
- Waterproof keyboard
- Footswitch
CAMERAS
TRIstar 4K - ULTRA HIGH DEFINITION CAMERA 3-MOS

- 4K UHD resolution
- Zoom, freeze, fog reduction
- Image enhancement of colour and structure
- 10 USER Presets for surgical application
- Multilingual menu
CAMERAS

TRIstar 4K - ULTRA HIGH DEFINITION CAMERA 3-MOS

Technical Data

Camera head:
- Aspect ratio: 16:9
- Image sensor: 3 MOS
- Immersible (using the attached cap)

System
- Power supply: 100/240 VAC, 50-60 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay acting 3,15 AH (I=1500A)
- Power consumption: 60 VA
- Image resolution: UHD 3840 x 2160
- TV resolution: 1600 lines
- S/N-Ratio 54dB
- White balance automatically, with data hold

Video output
- 1 x HDMI 4K (3840 x 2160)
- 1 x HDMI Full HD (1920 x 1080)
- 1 x SDI 4K (4 x BNC) (3840 x 2160)
- 1 x SDI Full HD (1 x BNC) (1920 x 1080)

Video format
- HDMI output: 3840x2160/59.94p, 3840x2160/50p, 1920x1080/59.94p, 1920x1080/59.94i, 1920x1080/50p, 1920x1080/50i
- SDI output: 3840x2160/59.94p, 3840x2160/50p, 1080/59.94p, 1080/59.94i, 1080/50p, 1080/50i

Standard
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

Dimensions
- Control unit: 355 x 103 x 350 mm (WxHxD) Weight: 6,2kg

Delivery contains
- CCU, camera head with 3,05m cable (10ft), mains cable, HDMI cable, User manual

Options
- Image capture, video capture

TRIstar 4K camera head

Weight: approx. 200g
Diameter: 43mm
Length: 85,7mm (without grommet)
With 4 push buttons

Colour space

The camera is able to reproduce the extended color space BT.2020 in addition to the BT.709 color space for HDTV. (Prerequisite is a BT.2020 compatible monitor)
## TV ADAPTER

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV-ilo 21 WP</td>
<td>Adapter, ( f = 21.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0000</td>
</tr>
<tr>
<td>TV-ilo 28 WP</td>
<td>Adapter, ( f = 28.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0001</td>
</tr>
<tr>
<td>TV-ilo 35 WP</td>
<td>Adapter, ( f = 35.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0002</td>
</tr>
<tr>
<td>TV-ilo 15 WP</td>
<td>Adapter, ( f = 15.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0003</td>
</tr>
<tr>
<td>TV-ilo 40 WP</td>
<td>Adapter, ( f = 40.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0006</td>
</tr>
<tr>
<td>TV-Zoom 1535 PWP</td>
<td>Adapter, vario-zoom, ( f = 15.0 - 35.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0016</td>
</tr>
<tr>
<td>TV-Zoom 1525 WP</td>
<td>Adapter, ( f = 15.0 - 25.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0004</td>
</tr>
<tr>
<td>TV-Zoom 2540 WP</td>
<td>Adapter, ( f = 25.0 - 40.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0005</td>
</tr>
<tr>
<td>TV-28 HDWP</td>
<td>Adapter, ( f = 28.0 \text{ mm}, \text{S-design, c-mount, soakable} )</td>
<td>870-0027</td>
</tr>
<tr>
<td>TV-25 HDWP</td>
<td>Adapter, ( f = 25.0 \text{ mm}, \text{S-design, c-mount, soakable} )</td>
<td>870-0029</td>
</tr>
<tr>
<td>TV-14 HDWP</td>
<td>Adapter, ( f = 14.0 \text{ mm}, \text{S-design, c-mount, soakable} )</td>
<td>870-0029</td>
</tr>
<tr>
<td>TV-Adapter angled</td>
<td>Adapter, angled 90°, ( f = 30.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0008</td>
</tr>
<tr>
<td>TV-Adapter angled</td>
<td>Adapter, angled 90°, ( f = 25.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0009</td>
</tr>
<tr>
<td>TV-Adapter angled</td>
<td>Adapter, angled 90°, ( f = 18.0 \text{ mm}, \text{c-mount, soakable} )</td>
<td>870-0010</td>
</tr>
<tr>
<td>TS-ILO 30 WP</td>
<td>Beamsplitter TV-Adapter, ( f = 30.0 \text{ mm c-mount, soakable} )</td>
<td>873-0000</td>
</tr>
<tr>
<td>TS-ILO 25 WP</td>
<td>Beamsplitter TV-Adapter, ( f = 25.0 \text{ mm c-mount, soakable} )</td>
<td>873-0001</td>
</tr>
<tr>
<td>TS-ILO 18 WP</td>
<td>Beamsplitter TV-Adapter, ( f = 18.0 \text{ mm c-mount, soakable} )</td>
<td>873-0002</td>
</tr>
<tr>
<td>TS-ILO 35 WP</td>
<td>Beamsplitter TV-Adapter, ( f = 35.0 \text{ mm c-mount, soakable} )</td>
<td>873-0003</td>
</tr>
</tbody>
</table>
COMBINATIONS
XE-50 SERIES

- Multifunctional system
- Compact & efficient
- Camera and Lightsource
- Documentation system
### Technical Data

**Camera head:**
- Aspect ratio: 4:3
- Image sensor: 1/3'' CCD
- Immersible (using the attached cap)

**System:**
- Power supply: 100/240 VAC, 50-60 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay acting 3,15 AH (I=1500A)
- Power consumption: 110 VA
- Video resolution: 470 lines
- Sensitivity: < 1 lux (1/1.4)

**Video system:**
- PAL/NTSC

**Monitor:**
- 10,4'' TFT, 800 x 600 dots resolution

**Shutter range:**
- PAL 1/50 - 1/100.000 sec; NTSC 1/60 - 1/100.000 sec

**Lamp:**
- Xenon metal halide short arc Lamp, 50 W, 5500 K

**Light guide connection:**
- Storz

**Video out terminal:**
- 2x Video; 2x S-Video; 1x Y-Pb-Pr (Component); 1x SDI; 1x USB 2.0

**Standard:**
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

**Features:**
- White balance, window functions, boost function, anti-moiree-filter
- Freeze function
- Video & image capture

**Dimensions:**
- Control unit: 295 x 128 x 278 mm (WxHxD); 6 kg

**Delivery contains:**
- CCU, mains cable, user manual, Y/C cable, BNC cable, USB Stick (optional)

### Housing

Collapsible TFT Monitor:

**XE-50 Motion camera head**

- Weight: 80 g
  - Size: d= 29 mm; l= 55 mm
- Without push buttons

- Weight: 105 g
  - Size: d= 34 mm; l= 73 mm
- With push buttons

### Series

<table>
<thead>
<tr>
<th></th>
<th>XE 50 USB</th>
<th>XE 50 MOTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image capture</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Video capture</td>
<td>-</td>
<td>x</td>
</tr>
</tbody>
</table>
COMBINATIONS
LED-50 SERIES

- Multifunctional system
- Compact & efficient
- Camera and Lightsource
- Documentation system
**Technical Data**

**Camera head:**
- Aspect ratio: 4:3
- Image sensor: 1/3'' CCD
- Immersible (using the attached cap)

**System**
- Power supply: 100/240 VAC, 50-60 Hz
- Fuses: 2 Fine fuses, 5x20 mm, delay acting 3,15 AH (I=1500A)
- Power consumption: 90 VA
- Video resolution: 470 lines
- Sensitivity: < 1 lux (1/1.4)

**Video system**
- PAL/NTSC

**Monitor**
- 10,4'' TFT, 800 x 600 dots resolution

**Shutter range**
- PAL 1/50 - 1/100.000 sec; NTSC 1/60 - 1/100.000 sec

**Lamp**
- LED lamp, comparable 50 W, 5500 K

**Light guide connection**
- Storz

**Video out terminal**
- 2x Video; 2x S-Video; 1x Y-Pb-Pr (Component); 1x SDI; 1x USB 2.0; HDMI (optional)

**Standard**
- Protection class: I
- Application part: Type BF
- classification acc. 93/42/EEC: I
- EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C

**Features**
- White balance, window functions, boost function, anti-moiree-filter
- Freeze function
- Documentation system

**Dimensions**
- Control unit: 295 x 128 x 278 mm (WxHxD); weight: 5 kg

**Delivery contains**
- CCU, mains cable, user manual, Y/C cable, BNC cable, USB Stick (optional)

**Housing**

**Collapsible TFT Monitor:**

**LED-50 series camera head**

**Series**

<table>
<thead>
<tr>
<th></th>
<th>LED-50 USB</th>
<th>LED-50 MOTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image capture</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Video capture</td>
<td>-</td>
<td>x</td>
</tr>
<tr>
<td>HDMI</td>
<td>LED-50 USB-D</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>LED-50 MOTION-D</td>
<td>x</td>
</tr>
</tbody>
</table>

**LED-50 USB**
- Weight: 80 g
- Size: d = 29 mm; l = 55 mm

**LED-50 MOTION**
- Weight: 105 g
- Size: d = 34 mm; l = 73 mm

**Without push buttons**

**With push buttons**
INSUFFLATOR
CO₂-INSUFFLATOR D-FLOW

- Full automatic
- Filter system for sterility
- Up to 45 liters/minute
- Microprocessor controlled
INSUFFLATOR
CO₂-INSUFFLATOR D-FLOW

Series Description

<table>
<thead>
<tr>
<th>Series</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF-315</td>
<td>Maximum gasflow: 15 l/min</td>
</tr>
<tr>
<td>DF-320</td>
<td>Maximum gasflow: 20 l/min</td>
</tr>
<tr>
<td>DF-330</td>
<td>Maximum gasflow: 30 l/min</td>
</tr>
<tr>
<td>DF-345</td>
<td>Maximum gasflow: 45 l/min</td>
</tr>
</tbody>
</table>

Options

- Version H: With gas heater
- Version V: With OSD - On-Screen-System (only available with connected ILO OSD Camera)

Technical Data

- Insufflator pressure: 0 - 30 mmHg
- Power supply: 100 - 240 VAC, 50 - 60 Hz
- Power consumption: 25 - 40 VA (25-105 VA with gas heating)
- Standard:
  - Protection class: I
  - Application part: Type BF
  - Classification acc. 93/42/EEC: IIb
  - EN ISO 13485 | 93/42/EEC | IEC 601-1, EN 60601-1C
- Gas: Carbon dioxide (medical)
- Gas connection: UNF 7/16"
- Dimensions: Control unit: 355 x 105 x 253 mm (WxHxD); 6,5 kg
- Delivery contains:
  - Insufflator, mains cable, CO2 high pressure tube UNF to German gas connection, wrench set: SW14/ SW30, sterile filter, standard silicone tube (not H version), system gas heater with tube set (only H version), user manual
- Features:
  - Flexible gas supply: The device can be used with gas bottles or central gas supply systems. The gas supply mode can be changed very easily by integrated software.
  - System gas heater: For reduction of post surgery problems the DF Series is available with a high efficient gas heater. The gas heater is preadjusted and works on a plug and play base full automatically. The heat exchanger can be autoclaved with the tube set.
  - OSD: The On-Screen-Display gives the surgeon the possibility to display the important values on the monitor.
  - ACF: The DF Series stands for Advance-Continuous-Flow-Insufflation. That means no more disruption between gasflow and pressure reading phases.
  - Safety: The automatic self check is activated each time the unit is switched on to ensure that all electronic and pneumatic components are in good running order. This safety feature carries a guarantee for lifetime of the unit. The changeable sterile filter prevents reflux of liquids and contamination of the gas way.
  - Differential pressure indicator: A colored LED array shows the actual-setpoint pressure difference between setted value and factual value in the patient.
## INSUFFLATOR

### ACCESSORIES

<table>
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<tr>
<th>Insufflator Accessories</th>
<th>Description</th>
<th>Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating Device</td>
<td>Heater source for insufflators with heating, autoclavable</td>
<td>952-0012</td>
</tr>
<tr>
<td>Filter</td>
<td>single sterilized filter for insufflator, single use</td>
<td>952-0009</td>
</tr>
<tr>
<td>Filter</td>
<td>50 sterilized filter for insufflator, single use</td>
<td>952-0007</td>
</tr>
<tr>
<td>Filter</td>
<td>100 sterilized filter for insufflator, single use</td>
<td>952-0005</td>
</tr>
<tr>
<td>Filter</td>
<td>250 sterilized filter for insufflator, single use</td>
<td>952-0006</td>
</tr>
<tr>
<td>Filter</td>
<td>500 sterilized filter for insufflator, single use</td>
<td>952-0008</td>
</tr>
<tr>
<td>High-pressure-tube</td>
<td>DIN GER/ DIN GER, 1m</td>
<td>952-1020</td>
</tr>
<tr>
<td>High-pressure-tube</td>
<td>UNF/ UNF, 1m</td>
<td>952-1022</td>
</tr>
<tr>
<td>High-pressure-tube</td>
<td>UNF/ PIN Index, 1m</td>
<td>952-1025</td>
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<tr>
<td>High-pressure-tube</td>
<td>UNF/ ISO, 1m</td>
<td>952-1026</td>
</tr>
<tr>
<td>High-pressure-tube</td>
<td>UNF/ GER, 1m</td>
<td>952-1021</td>
</tr>
<tr>
<td>Tubing</td>
<td>For laparoscopy insufflator without heating, 8mm x 2,5m</td>
<td>952-0004</td>
</tr>
<tr>
<td>Tubing</td>
<td>For laparoscopy insufflator with heating, 8mm x 2,5m</td>
<td>952-0003</td>
</tr>
</tbody>
</table>
PUMP
SUCTION IRRIGATION PUMP - SIP 3000

- Full automatic
- Filter system for sterility
- Up to 3 liters/minute
- Standby function
### Technical Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power supply</strong></td>
<td>· 115 VAC / 230 VAC switchable</td>
</tr>
<tr>
<td><strong>Irrigation</strong></td>
<td>· Max. 3000 ml/min (depending on tube set and instrument)</td>
</tr>
<tr>
<td><strong>Suction</strong></td>
<td>· Max. 3000 ml/min (depending on tube set and instrument)</td>
</tr>
<tr>
<td><strong>Standard</strong></td>
<td>· Protection class: I</td>
</tr>
<tr>
<td></td>
<td>· Application part: Type BF</td>
</tr>
<tr>
<td></td>
<td>· classification acc. 93/42/EEC: Iia</td>
</tr>
<tr>
<td></td>
<td>· EN ISO 13485</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>· Control unit: 355 x 105 x 253 mm (WxHxD); 5,5 kg</td>
</tr>
<tr>
<td><strong>Delivery contains</strong></td>
<td>· SIP 3000, 2 liter suction bottle with holder, 2 sterile filter,</td>
</tr>
<tr>
<td></td>
<td>1 silicone tube set for suction and irrigation, 1 thorn for rinsing bottle,</td>
</tr>
<tr>
<td></td>
<td>user manual</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td>· Overpressure in the irrigation bottle and underpressure in the suction bottle are controlled and balanced by high sensitive electronical sensors.</td>
</tr>
<tr>
<td></td>
<td>· The automatic standby function keeps the pressure available and reduces the noise if the system is not used.</td>
</tr>
<tr>
<td></td>
<td>· The use of disposable sterile air filters avoids contamination of the SIP 3000 and the irrigation liquid by contaminated air.</td>
</tr>
<tr>
<td></td>
<td>· All accessories are full autoclavable.</td>
</tr>
<tr>
<td></td>
<td>· The SIP 3000 is very simple to install and easy to use</td>
</tr>
<tr>
<td>Insufflator Accessories</td>
<td>Description</td>
</tr>
<tr>
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<tr>
<td>Thorn for rinsing bottle</td>
<td>For suction irrigation pump SIP 3000</td>
</tr>
<tr>
<td>Filter</td>
<td>50 sterilized filter for Pump, single use</td>
</tr>
<tr>
<td>Filter</td>
<td>100 sterilized filter for Pump, single use</td>
</tr>
<tr>
<td>Filter</td>
<td>500 sterilized filter for Pump, single use</td>
</tr>
<tr>
<td>Tube set</td>
<td>For suction irrigation pump SIP 3000, 8mm</td>
</tr>
<tr>
<td></td>
<td>Tubing, 6mm, 1x Male Luer Lock, 250 cm</td>
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<tr>
<td></td>
<td>Tubing, 6mm, Silicone Tube, 250 cm</td>
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<tr>
<td></td>
<td>Tubing, 6mm, 1x Female Luer Lock, 80 cm</td>
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<tr>
<td></td>
<td>Tubing, 6mm, 2x Male Luer Lock, 80 cm</td>
</tr>
<tr>
<td>Suction bottle</td>
<td>For suction irrigation pump SIP 3000</td>
</tr>
</tbody>
</table>
FOR FURTHER INFORMATION PLEASE CONTACT US:
+49 (0) 4106-7758-0 or info@ilo.com