



ENDOSCOPY STEMA PRODUCTS



UNITS



ABOUT US



SINCE 20 YEARS



EXPORT IN
+70 COUNTRIES



24H/SERVICE



+ 10.000
PRODUCTS



LOCATED IN THE
WORLD CENTER
FOR MEDICAL
TECHNOLOGY

CERTIFICATED

STEMA Medizintechnik GmbH is certified in accordance with the highest standards:

- DIN EN ISO 13485:2016 + AC:2016
- EU 2017/745 (**MDR**)
- EG Richtlinien 93/42/EWG Anhang II ohne Abschnitt 4
- EG Richtlinien 93/42/EWG Anhang V ohne Abschnitt 3
- FDA

These standards create an essential base for our company and our partners. They also symbolize the commitment and strive to keep up the quality of our products.



PRODUCT RANGE

The current product range of STEMA Medizintechnik GmbH includes more than 10.000 different items.

We cover the following areas in surgery with high quality products:

ARTHROSCOPY
BRONCHOSCOPY
CARDIAC MIS
CONTAINER-SYSTEMS
GASTROENTEROLOGY
GYNAECOLOGY
HF-SURGERY
LAMINECTOMY
LAPAROSCOPY
MICRO MOTOR SYSTEMS
PROCTOSCOPY
SPINE-SURGERY
THORACOSCOPY
TITANIUM PLATING SYSTEM
UNITS
UROLOGY



CONTENT UNITS

PRODUCT

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1. CAMERAS

1.1 | 1-CMOS HIGH-DEFINITION CAMERAS

1/3" CMOS HD CAMERA STEMA ECO HD

1/2" CMOS HD CAMERA STEMA ECO HD PRO

1/3" CMOS HD CAMERA STEMA PRO 1

1/3" CMOS HD CAMERA PRO 2S+

CAMERA HEADS STEMA PRO 2S+

1.2 | 3-CMOS HIGH-DEFINITION CAMERAS

3-CMOS HD CAMERA STEMA PRO2

3-CMOS HD CAMERA STEMA PRO 2S++

CAMERA HEADS STEMA PRO 2S++

1.3 | 4K ULTRA-HD CAMERAS

4K ULTRA-HD CAMERA STEMA 4K PRO 1+

4K ULTRA-HD CAMERA STEMA 4K PRO 1++

4K ULTRA-HD CAMERA STEMA 4K PRO 2S

CAMERA HEADS STEMA PRO 2S 4K

1.4 | ACCESSORIES

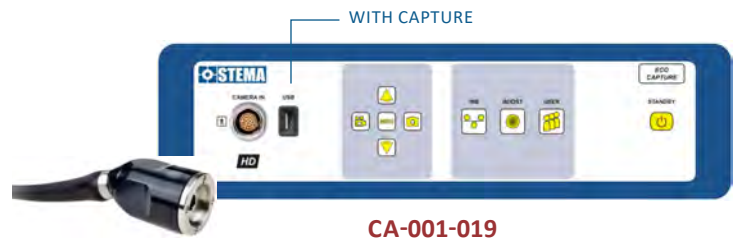
1.5 | TV ADAPTER

1.6 | INFORMATION RECORDING MODULES

1.1 | 1/3" CMOS HD CAMERA STEMA ECO HD

- *High Definition Camera*
- *Multilingual menu*
- *Full HD resolution*
- *High-Speed shutter*
- *10 user settings storable*

Ordering no.	Product
CA-001-019	STEMA ECO HD CAPTURE
CA-001-018	STEMA ECO HD



CA-001-019



CA-001-018

Technical data

Camera head (usually without push buttons but can be booked separately / page 8)

Aspect ratio	16:9
Image sensor	1/3" CMOS
Immersible	Yes (using the attached cap)
Dimensions	36.5 x 65mm
Weight	approx. 150 g

System

Image resolution	Full HD 1920 x 1080 (1080p)
TV resolution	> 1000 lines
Sensitivity	< 3 Lux (1/1.4)
White balance	Automatically with data hold
Shutter speed	1/50 to 1/10.000 sec.
Voltage range	100-240 V (25VA)
Frequency	50-60 Hz
Connections	Video out terminal: 1 x HDMI

Other connections: 1x USB (A), 1x Remote IN (footswitch), 1x Remote OUT (video printer, video recorder, etc.), 1x RJ45 (Service)

Recording (optional)	Image format: JPG 1920 x 1080, video format: Full HD 1920 x 1080 (Mpeg-4-H.264 Codec)- image rate 60 fps, connection: USB (A)
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Device protection	2 x T3, 15 A
Protection class (acc. IEC 60601-1)	I
Safety class	BF
IP code	IP 20
Standard	IEC 60601-1-2 / IEC 60601-1-1
Device classification (EU) 2017/745, Annex VIII	I
Dimensions	360 x 125 x 351 mm (w x h x d)
Weight	approx. 4.7 kg

Features	On-screen menu, titel generator (USB), 10 user settings storable, boost function, freeze function, 2.5 digital zoom
-----------------	---

CA-001-019: with capture module (image/video)

CA-001-018: without capture module

Delivery contains

Camera (control unit), camera head with cable (3.05m), operating manual, cable: mains (1), HDMI-DVI (1), HDMI (1)

1.1 | ACCESSORIES | STEMA ECO HD



Ordering no.

CD-001-028 **Extra charge for CA-001-018 | CA-001-019:**
HD Camera head with three push buttons (programmable and double allocable)



1.1 | 1/2" CMOS HD CAMERA STEMA ECO HD PRO

- *High Definition Camera*
- *Multilingual menu*
- *Full HD resolution*
- *High-Speed shutter*
- *8 endoscope presets available*



CA-001-027

Ordering no. Product

CA-001-027 STEMA ECO HD PRO CAPTURE

Technical data

Camera head (with push buttons)

Aspect ratio	16:9
Image sensor	1/2" CMOS
Dimensions	38 x 79mm
Weight	180 g
Features	programmable and double allocable

System

Image resolution	Full HD 1920 x 1080 (1080p)
TV resolution	> 900 lines
Sensitivity	< 3 Lux (1/1.4)
White balance	Automatically with data hold
Shutter speed	1/50 to 1/10.000 sec.
Voltage range	100-240 V (25VA)
Frequency	50-60 Hz
Connections	Video out terminal: 1 x HDMI, 1x DVI, 1x SDI, 1x Video Other connections: 1x USB (A), 1x Remote IN (footswitch), 2x RJ45 (Service)
Recording Options	Image format: JPG 1920 x 1080, video format: Full HD 1920 x 1080 connection: USB (A)
Device protection	2 x T3, 15 A
Protection class (acc. IEC 60601-1)	I
Safety class	BF
IP code	IP 20
Standard	IEC 60601-1-2
Device classification (EU) 2017/745, Annex VIII	I
Dimensions	360 x 125 x 351mm (w x h x d)
Weight	4.5 kg
Features	White balance, On-screen menu, 8 user settings storable, boost function, freeze function, digital zoom, with Capture module (image/video)

Delivery contains

Camera (control unit), camera head with cable (3.05m), operating manual, cable: mains (1), HDMI-DVI (1), HDMI (1)



1.1 | 1/3" CMOS HD CAMERA STEMA PRO 1

- *Multilingual menu*
- *Full HD resolution*
- *High-Speed shutter*
- *3 user settings storable*
- *2.5 digital zoom*

Ordering no.	Product
CA-001-014	STEMA PRO 1 CAPTURE
CA-001-012	STEMA PRO 1



Technical data

Camera head (with push buttons)

Aspect ratio	16:9
Image sensor	1/3" CMOS
Immersible	Yes (using the attached cap)
Dimensions	34 x 73mm
Weight	105 g

System

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 1/10.000 sec.
Voltage range	100-240 V (25VA)
Frequency	50-60 Hz
Connections	Video out terminal: 1 x HDMI, 1y Y-Pb-Pr (Component), 1x Video (PAL/NTSC), 1x S-Video (PAL/NTSC), 2x HD SDI (optional) Other connections: 1x USB (A) (USB-keyboard), 1x Remote IN (footswitch), 1x Remote OUT (video printer, video recorder, etc.), 1x RJ45 (Service)
Recording	Image format: JPG 1920 x 1080, video format: Full HD 1920 x 1080; Mpeg-4 (H.264 Codec); image rate 60 fps, connection: USB (A)
Device protection	2x T3, 15 A / 2 x T3, 15 A
Protection class (acc. IEC 60601-1)	I
Safety class	BF
IP code	IP 20 / IP 20
Standard	EN 60601-1-2
Device classification (EU) 2017/745, Annex VIII	I/I
Dimensions	355 x 103 x 253mm (w x h x d)
Weight	4.5 kg
Features	On-screen menu, titel generator (USB), 3 user settings storable, boost function, freeze function, 2.5 digital zoom, CA-001-014: with capture module (image/video), CA-001-012: without capture module

Delivery contains

Camera (control unit), camera head with cable (3.05m), operating manual, cable: mains (1), HDMI-DVI (1), HDMI (1)

1.1 CAMERA HEADS | STEMA PRO 2S+

Ordering no.

CA-001-041

CAMERA HEAD FULL HD ZOOM



Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Parafoal zoom	$f = 14.25 - 28\text{mm}$
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimensions	39x40x134 mm with endocoupler
Weight	210 g

Ordering no.

CA-001-042

CAMERA HEAD FULL HD FIX FOCAL LENGTH



Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Focal length	$f = 14.25$
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimension	39x40x120 mm with endocoupler
Weight	200 g

Ordering no.

CA-001-043

CAMERA HEAD FULL HD 90° ANGLED



Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Focal length	$f = 14.25$
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimension	57x52x165 mm with endocoupler
Weight	190 g

1.2 | 3 CMOS HD CAMERA STEMA PRO 2

- *Multilingual menu*
- *Full HD resolution*
- *High-Speed shutter*
- *3 user settings storable*
- *2.5 digital zoom*



CA-001-015



CA-001-013

Ordering no.	Product
CA-001-015	STEMA PRO 2 CAPTURE

CA-001-013 STEMA PRO 2

Technical data

Camera head (with push buttons)

Aspect ratio	16:9
Image sensor	3x1/3" CMOS
Immersible	Yes (using the attached cap)
Dimensions	38.5 x 81mm
Weight	145 g

System

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.
Voltage range	100-240 V (50VA)
Frequency	50-60 Hz
Connections	Video out terminal: 2 x HD-SDI, 1x HDMI/DVI, 1x Y-Pb-PR (Component), 1x Y/C (PAL/NTSC), 1x (CVBS (PAL/NTSC)

Other connections: 1x USB (A) (USB keyboard), 1x Remote IN (footswitch), 1x Remote OUT (video printer, video recorder, etc.), 1x RJ45 (Service)

Recording Options Image format: JPG 1920 x 1080, video format: Full HD 1920 x 1080 (Mpeg-4-H.264 Codec)- image rate 60 fps, connection: USB (A)

Device protection	2x T3, 15 A
Protection class (acc. IEC 60601-1)	I
Safety class	BF
IP code	IP 20
Standard	IEC 60601-1-2 / IEC 60601-1-1
Device classification (EU) 2017/745, Annex VIII	I
Dimensions | Weight	360 x 125 x 351mm (w x h x d) | 4.5 kg

Features On-screen menu, titel generator (USB), 3 user settings storable, boost function, freeze function, 2.5 digital zoom

CA-001-015: with capture module (image/video)

CA-001-013: without capture module

Delivery contains

Camera (control unit), camera head with cable (3.05m), operating manual, cable: mains (1), HDMI-DVI (1), HDMI (1), Y/C (1), BNC (1)



1.2 3 CMOS HD CAMERA STEMA PRO 2 S++

- *Multilingual menu*
- *Full HD resolution*
- *3 user settings storable*
- *Automatic gain control (AGC)*
- *No pixel errors due to automatic pixel defect compensation*
- *Optimized settings for Laparoscopy, Arthroscopy, Gynecology, Urology, ENT, fiberscopes, Neuroendoscopy*
- *MIS-Bus interface for direct light source control via camera head*



CA-001-050

Ordering no.	Description
CA-001-050	STEMA PRO 2S++

Technical data

Camera head	All matching camera heads as well as the corresponding technical data please find on page 15-16
System	
Image resolution	Full HD 1920 x 1080 (50/60p)
White balance	Manually with data hold
Supply voltage	100-240 V AC
Frequency	50-60 Hz
Current consumption	0.8- 0.4 A
Connections	Video outputs: 2 x DVI (1080p), 2 x 3G-SDI (1080i), 1 x MIS-Bus, Other connections: 2 x USB, 2 x 3.5mm phone jack connectors (recording/printer), 2x 3.5mm phone jack connectors (footswitch)
Norm	IEC 60601-1-2 / IEC-60601-1
Device classification (EU) 2017/745, annex VIII	I
Safety class	BF
IP code	IP 21
Directive compliance	CE / CE
Dimensions	295 x 100 x 355mm (w x h x d)
Weight	5.7 kg
Features	On-screen menu, titel generator (USB), 3 user settings storable, capture module (image only) , selective colour enhancement (SCE), smoke reduction

Delivery contains

Camera (control unit), operating manual, cable: mains (1), MIS-Bus (1), DVI (1), stereo jack (1)

1.1 CAMERA HEADS | STEMA PRO 2S++

Ordering no.

CA-001-041

CAMERA HEAD FULL HD ZOOM



Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Parafoal zoom	f = 14.25- 28mm
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimensions	39x40x134 mm with endocoupler
Weight	210 g

Ordering no.

CA-001-042

CAMERA HEAD FULL HD FIX FOCAL LENGTH



Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Focal length	f = 14.25
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimension	39x40x120 mm with endocoupler
Weight	200 g

Ordering no.

CA-001-043

CAMERA HEAD FULL HD 90° ANGLED



Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Focal length	f = 14.25
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimension	57x52x165 mm with endocoupler
Weight	190 g

1.2 CAMERA HEADS | STEMA PRO 2S++

Ordering no.



CA-001-054 CAMERA HEAD FULL HD 3 CMOS ZOOM

Image sensor	3 x 1/3" CMOS (progressive)
Sensor resolution	3 x 1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Parafocal zoom	f = 14.25- 28mm
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Weight	330 g



*This camera head (1/3" CMOS) can be used with the control units **CA-001-050** and **CA-001-060** only. And can be used only in connection with an **additional TV adaptor** (page 25).*

Ordering no.



CA-001-055 CAMERA HEAD FULL HD (AUTOCLAVABLE)

Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys.....	3 individually programmable keys
Connection plug.....	Waterproof
Reprocessing.....	AUTOCLAVABLE
Length cable	3.5m
Weight	230 g (without endocoupler and cable)



TECHNICAL DATA ENDOCOUPLER

Focal length	13 to 29 mm
Maximum weight	150g
Interface endoscope	Snap-on mechanism



1.3 | 4K ULTRA-HD CAMERA STEMA 4K PRO 1++ / 1+

- *Multilingual menu*
- *4K UHD resolution*
- *Zoom and freeze function*
- *Smoke reduction*
- *10 pre-settings for surgical application*

Ordering no.	Product
CA-001-017	STEMA FOUR K PRO 1++ CAPTURE
CA-001-016	STEMA FOUR K PRO 1+

Technical data

Camera head (with 4 push buttons)

Aspect ratio	16:9
Image sensor	3x1/3" CMOS
Immersible	Yes (using the attached cap)
Dimensions	43 x 85.7mm
Weight	500 g

System

Image resolution	Ultra HD 3840 x 2160
TV resolution	1.600 lines
Signal-to-noise ratio	54dB
White balance	Automatically with data hold
Voltage range	100-240 V (50VA)
Frequency	50-60 Hz
Video outputs	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)

Recording Options	HDMI Output: 3840 x 2160 / 59.94p (50p), 1920 x 1080 / 59.94p (59.94i/50p/50i)
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	SDI Output: 3840 x 2160 / 59.94p (50p), 1920 x 1080 / 59.94p (59.94i/50p/50i)
--	---

Device protection	
Protection class (acc. IEC 60601-1)	2x T3, 15 A
Safety class	I
IP code	BF
Standard	IP 20
Device classification (EU) 2017/745, Annex VIII	IEC 60601-1-2 / IEC 60601-1-1
Dimensions	I
Weight	360 x 125 x 351mm (w x h x d) 6.2 kg

Features	4K UHD resolution, Zoom, freeze, smoke correction, 10 USER Presets for surgical application, Multilingual menu, Image enhancement
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CA-001-017: with capture module

CA-001-016: without capture module (Image/Video)



Delivery contains

Camera (control unit), camera head with cable (3.05m), operating manual, cable: mains (1), HDMI (1)



1.3 | 4K ULTRA HD CAMERA STEMA PRO 2S 4K

- *Multilingual menu*
- *4K UHD and Full HD resolution*
- *3 user settings storable*
- *Automatic gain control (AGC)*
- *No pixel errors due to automatic pixel defect compensation*
- *Optimized settings for Laparoscopy, Arthroscopy, Gynecology, Urology, ENT, fiberscopes, Neuroendoscopy*
- *MIS-Bus interface for direct light source control via camera head*
- *With Capture module*



CA-001-060

Ordering no.	Product
CA-001-060	STEMA PRO 2S 4K

Technical data

Camera head	.....	All matching camera heads as well as the corresponding technical data please find on page 19-20
System		
Image resolution	.....	Full HD 1920 x 1080
White balance	.....	Manually with data hold
Supply voltage	.....	100-240 V AC
Frequency	.....	50-60 Hz
Current consumption	.....	0.8-0.4 A
Outputs	.....	4K UHD: 4 x 3G-SDI (3840 x 2160, 50/60p) / HD: 2 x 3G-SDI, 2 x DVI (1080p), 1 x MIS-Bus, 2 x USB, 2 x 3.5mm phone jack (recording/printer), 2 x 3.5mm phone jack (footswitch)
Standard	.....	IEC 60601-1
Device classification (EU) 2017/745, Annex VIII	.....	I
Safety class	.....	BF
IP code	.....	IP20
Directive compliance	.....	CE
Dimensions	.....	295 x 130 x 355mm (w x h x d)
Weight	.....	6.6 kg
Features	.....	On-screen menu, titel generator (USB), 3 user settings storable, capture module (image & video) , selective colour enhancement (SCE), smoke reduction

Delivery contains

Camera (control unit), operating manual, cable: mains (1), MIS-Bus (1), DVI (1), stereo jack (1)

1.3 CAMERA HEADS | STEMA PRO 2S 4K

Ordering no.

CA-001-041

CAMERA HEAD FULL HD ZOOM



Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Parafoal zoom	f = 14.25- 28mm
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimensions	39x40x134 mm with endocoupler
Weight	210 g

Ordering no.

CA-001-042

CAMERA HEAD FULL HD FIX FOCAL LENGTH



Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Focal length	f = 14.25
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimension	39x40x120 mm with endocoupler
Weight	200 g

Ordering no.

CA-001-043

CAMERA HEAD FULL HD 90° ANGLED



Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Focal length	f = 14.25
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimension	57x52x165 mm with endocoupler
Weight	190 g

1.3 CAMERA HEADS | PRO 2S 4K



Ordering no.

CA-001-061

CAMERA HEAD 4K UHD ZOOM

Image sensor	3 x 1/3" CMOS (Progressive)
Sensor resolution	3840 x 2160, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Parafoal zoom	f = 14.25- 28mm
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Weight	330 g



*This camera head (1/3" CMOS) can be used with the control units **CA-001-050** and **CA-001-060** only. And can be used only in connection with an **additional TV adaptor (page 25)**.*



Ordering no.

CA-001-055

CAMERA HEAD FULL HD (AUTOCLAVABLE)

Image sensor	1/3" CMOS (progressive)
Sensor resolution	1920 x 1080, 50/60p
Function keys.....	3 individually programmable keys
Connection plug.....	Waterproof
Reprocessing	AUTOCLAVABLE
Length cable	3.5m
Weight	230 g (without endocoupler and cable)



TECHNICAL DATA ENDOCOUPLER

Focal length	13 to 29 mm
Maximum weight	150g
Interface endoscope	Snap-on mechanism

1.4 CAMERA | ACCESSORIES FOR ALL STEMA CAMERAS



Ordering no.

CD-010-003 Keyboard waterproof, **German layout**

CD-010-004 Keyboard waterproof, **US layout**



Ordering no.

CD-010-005 Foot switch



Ordering no.

CD-010-006 USB stick (32 GB) for use with **all** STEMA cameras



Ordering no.

CD-010-007 Basket for **all** STEMA camera heads

1.5 CAMERA | TV ADAPTER

STEMA ECO | STEMA PRO 1 | STEMA PRO 2



All STEMA TV adapters are soakable and with a C-Mount (standardized threaded connection) for an optimal compatibility.



Ordering no.

CD-001-019 Beam-splitter, f=18mm



Ordering no.

CD-001-021 TV adapter HD, f=28mm

CD-001-024 TV adapter HD, f=25mm

CD-001-034 TV adapter HD, f=21mm

CD-001-023 TV adapter HD, f=14mm



Ordering no.

CD-001-046 TV adapter HD, f=18mm



Ordering no.

CD-001-037 TV adapter HD Zoom (automatic coupling), f=15-35mm

1.5 CAMERA | TV ADAPTER

STEMA 4K PRO 1++ / 1+



All STEMA TV adapters are soakable and with a C-Mount (standardized threaded connection) for an optimal compatibility.



Ordering no.

- CD-001-040** TV adapter 4K UHD, $f=14\text{mm}$
- CD-001-041** TV adapter 4K UHD, $f=18\text{mm}$
- CD-001-042** TV adapter 4K UHD, $f=22\text{mm}$
- CD-001-043** TV adapter 4K UHD, $f=25\text{mm}$
- CD-001-044** TV adapter 4K UHD, $f=28\text{mm}$



Ordering no.

- CD-001-045** TV adapter 4K UHD Zoom, $f=15\text{-}30\text{mm}$

1.6 INFORMATION RECORDING MODULE



The information concern the recording modules of the following cameras:

STEMA ECO / STEMA PRO 1 / STEMA PRO 2 / STEMA FOUR K PRO 1

Recording time (approximately)

MPEG4 (H.264)	1920 x 1080p / 60fps	1920 x 1080p / 60fps	1920 x 1080p / 60fps
BIT rate	24 Mbps (best quality)	12 Mbps	4 Mbps
USB-Stick- 4GB	22 Minutes	45 Minutes	2 Hours 15 Minutes
USB-Stick- 16GB	1 Hour 30 Minutes	3 Hours	9 Hours
USB-Stick- 32GB	3 Hours	6 Hours	18 Hours
USB-Stick- 64GB	6 Hours	12 Hours	36 Hours
USB-Stick- 128GB	12 Hours	24 Hours	72 Hours
USB-Stick- 256GB	24 Hours	48 Hours	144 Hours



The information concern the recording modules of the following cameras:

STEMA PRO 2S+ / STEMA PRO 2S++ / STEMA PRO 2S 4K

Recording time (approximately)

MPEG4 (H.264)	1920 x 1080p / 60fps	1920 x 1080p / 60fps	1920 x 1080p / 60fps
BIT rate	24 Mbps (best quality)	12 Mbps	4 Mbps
USB-Stick- 4GB	20 Minutes	44 Minutes	2 Hours 10 Minutes
USB-Stick- 16GB	1 Hour 25 Minutes	3 Hours	9 Hours
USB-Stick- 32GB	3 Hours	6 Hours	18 Hours
USB-Stick- 64GB	6 Hours	12 Hours	36 Hours
USB-Stick- 128GB	12 Hours	24 Hours	72 Hours
USB-Stick- 256GB	24 Hours	48 Hours	144 Hours

2. LIGHT SOURCES

2.1 | LED LIGHT SOURCES

STEMA LED 1

STEMA LED 2 | 2T

STEMA LED 2S

STEMA LED 2S PRO

2.2 | LIGHT GUIDES

2.3 | ADAPTERS FOR LIGHT GUIDES

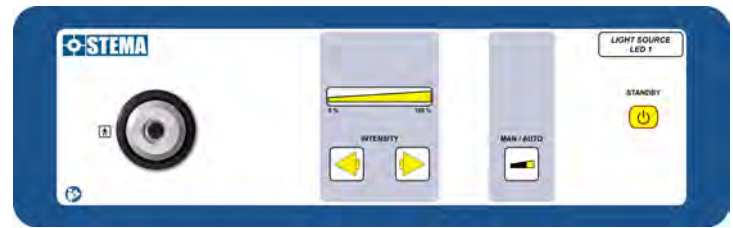
ADAPTERS FOR FIBER OPTIC LIGHT (SCOPE SIDE)

ADAPTERS FOR FIBER OPTIC LIGHT (UNIT SIDE)

2.4 | SPARE LAMPS XENON AND HALOGEN

2.1 | LED LIGHT SOURCES STEMA LED 1

- *Low noise*
- *Daylight quality*
- *Low heat conduction*
- *Electronical light control via buttons*
- *Waterproof control panel*



CB-004-002

Ordering no. Product

CB-004-002 STEMA LED 1

Technical data

System

Lamp	LED 2500: LED CRI 70m
Colour temperature	Daylight quality - 6.500 K
Lifetime	>20.000 hours
Light guide connection	STEMA, Storz
Setting light intensity	Automatic and manual
Video In	1x Video, BNC
Other connections	Service (RJ45)
Supply voltage	100-240 V (130 VA)
Frequency	50-60 Hz
Device protection	2 x T3.15 A
Protection class (acc. IEC 60601-1)	I
Safety class	BF
IP code	IP 20
Standard	IEC 60601-1-2
Device classification (EU) 2017/745, annex VII	I
Dimensions	360 x 125 x 251mm (w x h x d)
Weight	5 kg

Delivery contains

Light source (control unit), operating manual, cable: mains (1), BNC (optional)

Recommended Products

CK-001-012 High performance fiber optic light cable, Ø 4.8mm, length 230cm

CK-010-001 Fiber optic light cable adapter, scope side **STEMA / Storz / Olympus / Stryker**

CK-010-011 Fiber optic light cable adapter, unit side **STEMA / Storz**



2.1 | LED LIGHT SOURCES STEMA LED 2 | LED 2T

- *High intensity Light Source*
- *Low noise*
- *Daylight quality*
- *Low heat conduction*
- *Electronical light control via buttons*
- *Waterproof control panel*



LED 2 | CB-005-007



LED 2T | CB-005-008

Ordering no.	Product
CB-005-007	STEMA LED 2
CB-005-008	STEMA LED 2T | WITH TURRET MULTI CONNECTOR

Technical data

System

Lamp	LED 3000
Colour temperature	Daylight quality - 6.500 K
Lifetime	>30.000 hours
Light guide connection	CB-005-007: STEMA, Storz (Standard connection) CB-005-008: Turret, multi connector (optional): Wolf, ACMI, Olympus, Storz

Setting light intensity	Automatic and manual
Video In	1x video
Other connections	Service (RJ45)
Supply voltage	100-240 V (130 VA)
Frequency	50-60 Hz
Device protection	2 x T6.3 A
Protection class (acc. IEC 60601-1)	I
Safety class	BF
IP code	IP 20
Standard	IEC 60601-1-1, IEC-60601-1-2
Device classification (EU) 2017/745, annex VII	I
Dimensions	355 x 120 x 340mm (w x h x d)
Weight	10 kg

Delivery contains

Light source (control unit), operating manual, cable: mains (1), BNC (optional)

Recommended Products

CK-001-012 High performance fiber optic light cable, Ø 4.8mm, length 230cm

CK-010-001 Fiber optic light cable adapter, scope side **STEMA / Storz / Olympus / Stryker**

CK-010-011 Fiber optic light cable adapter, unit side **STEMA / Storz**



2.1 | LED LIGHT SOURCES STEMA LED 2S

- *Lowest cost of ownership with new LED technology (no bulbs to exchange - long lifetime)*
- *Lifespan of the illuminant >20.000h*
- *High luminance with low temperature development*
- *User friendly: integrated SCHÖLLY MIS-Bus interface*
- *Outstanding performance*
- *Multi light guide adapter compatible to STEMA, Storz, Wolf and Olympus lightguides*
- *Very silent device only producing 25dB of noise, virtually inaudible*



CB-005-005

Ordering no. Product

CB-005-005 STEMA LED 2S

Technical data

System

Lamp	LED
Colour temperature	6.500 K
Lifetime	>20.000 hours
Luminous flux	1.400 lm
Light guide connection	Multi light guide adaptor (STEMA, Storz, Wolf, Olympus, ACMI)
Setting light intensity	Automatic and manual
Connectivity	MIS-Bus interface
Supply voltage	100-240 V (130 VA)
Power consumption	Approx. 140W (1.0-0.42 A)
Frequency	50-60 Hz
Protection class (acc. IEC 60601-1)	I
Directive compliance	CE mark
Standard	IEC 60601-1-1, IEC-60601-1-2
Device classification (EU) 2017/745, annex VII	I
Dimensions	295 x 130 x 355mm (w x h x d)
Weight	5.8 kg

Delivery contains

Light source (control unit), operating manual, cable: mains (1)

Recommended Products

CK-001-012 High performance fiber optic light cable, Ø 4.8mm, length 230cm

CK-010-001 Fiber optic light cable adapter, scope side **STEMA / Storz / Olympus / Stryker**

CK-010-011 Fiber optic light cable adapter, unit side **STEMA / Storz**



2.1 | LED LIGHT SOURCES STEMA LED 2S PRO

- Outstanding light quality with CRI>90 for best colour rendering
- Light output comparable to 300 W Xenon
- Fully automatic light control by FlexiVision
- LCD display showing luminance level
- Very silent device only producing 25dB of noise, virtually inaudible
- Multi light guide adapter to STEMA, Storz, Wolf and Olympus lightguides



CB-005-006

Ordering no. Product

CB-005-006 STEMA LED 2S PRO

Technical data

System

Lamp	High power white light LED
Colour temperature	5.600 K
Lifetime	>30.000 hours
Light guide connection	Multi light guide adaptor (STEMA, Storz, Wolf, Olympus, ACMI)
Setting light intensity	Automatic and manual
Connectivity	MIS-Bus interface
Power consumption	Approx. 140W (1.0-0.42 A)
Supply voltage	100-240 V (130 VA)
Frequency	50-60 Hz
IP Code	IP 21
Protection class (acc. IEC 60601-1)	I
Directive compliance	CE mark
Standard	IEC 60601-1-1, IEC-60601-1-2
Device classification (EU) 2017/745, annex VII	I
Dimensions	295 x 130 x 355mm (w x h x d)
Weight	8 kg

Delivery contains

Light source (control unit), operating manual, cable: mains (1)

Recommended Products

CK-001-012 High performance fiber optic light cable, Ø 4.8mm, length 230cm

CK-010-001 Fiber optic light cable adapter, scope side **STEMA / Storz / Olympus / Stryker**
CK-010-011 Fiber optic light cable adapter, unit side **STEMA / Storz**


2.2 LIGHT GUIDES



All STEMA fiber optic light cables have (compared to conventional fiber optic light cables) a **20% higher transmission** as well as a **temperature resistance on light guide**. Furthermore our fiber optic light cables are **disinfectable** as well as **autoclavable**.



Ordering no.	Description	Diameter	Length
CK-002-011	Glass fiber light guide, flexible	Ø 4.8mm	180cm
CK-002-012	Glass fiber light guide, flexible	Ø 4.8mm	230cm
CK-002-013	Glass fiber light guide, flexible	Ø 4.8mm	300cm



Ordering no.	Description	Diameter	Length
CK-004-001	Y-Glass Fibre Light Guide 2x instrument side	Ø 3.5 - 5mm	180cm
CK-004-002	Y-Glass Fibre Light Guide 2x instrument side	Ø 3.5 - 5mm	230cm
CK-004-003	Y-Glass Fibre Light Guide 2x instrument side	Ø 3.5 - 5mm	300cm

2.2 LIGHT GUIDES



All STEMA fiber optic light cables have (compared to conventional fiber optic light cables) a **20% higher transmission** as well as a **temperature resistance on light guide**. Furthermore our fiber optic light cables are **disinfectable** as well as **autoclavable**.



Ordering no.	Description	Diameter	Length
CK-001-005	High performance fiber optic light cable	Ø 2.8mm	180cm
CK-001-007	High performance fiber optic light cable	Ø 2.8mm	300cm
CK-001-001	High performance fiber optic light cable	Ø 3.5mm	180cm
CK-001-002	High performance fiber optic light cable	Ø 3.5mm	230cm
CK-001-003	High performance fiber optic light cable	Ø 3.5mm	300cm
CK-001-011	High performance fiber optic light cable	Ø 4.8mm	180cm
CK-001-012	High performance fiber optic light cable	Ø 4.8mm	230cm
CK-001-013	High performance fiber optic light cable	Ø 4.8mm	300cm
CK-001-014	High performance fiber optic light cable	Ø 4.8mm	350cm

2.3 | ADAPTERS FOR LIGHT GUIDES

ADAPTERS FOR FIBER OPTIC LIGHT CABLES (SCOPE SIDE)



Adapter pieces to use with endoscope



Ordering no.

CK-010-001 Fiber optic light cable adapter, scope side **STEMA / Storz / Olympus / Stryker**



Ordering no.

CK-010-002 Fiber optic light cable adapter, scope side **Wolf / HSW**



Ordering no.

CK-010-003 Fiber optic light cable adapter, scope side **ACMI**



Ordering no.

CK-010-021 Scope adapter **Storz**



Ordering no.

CK-010-022 Scope adapter **Wolf**

2.3 | ADAPTERS FOR LIGHT GUIDES

ADAPTERS FOR FIBER OPTIC LIGHT CABLES (UNIT SIDE)



Adapter pieces to use with light source



Ordering no.

CK-010-011

Fiber optic light cable adapter, unit side **STEMA / Storz**

CK-010-015

Fiber optic light cable adapter (Xenon only), unit side **STEMA / Storz**



Ordering no.

CK-010-012

Fiber optic light cable adapter, unit side **Wolf / HSW**

CK-010-016

Fiber optic light cable adapter (Xenon only), unit side **Wolf / HSW**



Ordering no.

CK-010-013

Fiber optic light cable adapter, unit side **ACMI / Stryker**

CK-010-017

Fiber optic light cable adapter (Xenon only), unit side **ACMI / Stryker**



Ordering no.

CK-010-014

Fiber optic light cable adapter, unit side **OLYMPUS**

CK-010-018

Fiber optic light cable adapter (Xenon only), unit side **OLYMPUS**

2.4 SPARE LAMPS FOR XENON LIGHT SOURCES

Ordering no.	
CJ-001-001	Spare lamp for Xenon light sources STEMA 100M and STEMA 100A
CJ-001-002	Spare lamp for Xenon light sources STEMA 180M and STEMA 180A
CJ-001-003	Spare lamp for Xenon light sources STEMA 300M and STEMA 300A
CJ-001-004	Spare lamp for Xenon light sources STEMA 24M
Ordering no.	
CJ-001-011	Spare lamp for Halogen light sources STEMA 250
CJ-001-012	Spare lamp for Halogen light sources STEMA 150



The lightsources STEMA 110M / 100A, 180M/180A, 24M, 250, 150 are not available anymore, but the spare lamps for these Devices.

3. ICG

3.1 | ICG UHD CAMERA 4K

3.2 | ICG LED HIGH INTENSITY LIGHT SOURCE

3.3 | ICG LIGHT GUIDES

ICG UHD CAMERA 4K

ICG LED LIGHT SOURCE



3.1 | ICG UHD CAMERA 4K STEMA FOUR K PRO ICG

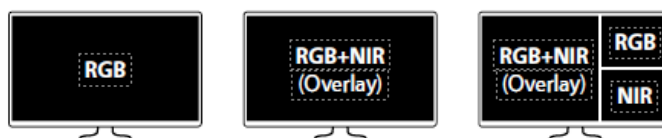
- 4 Chip technology
- 10 presets for regular and ICG
- Light source control
- Touch panel



Ordering no.	Product
CA-001-025	STEMA FOUR K PRO ICG | 4K UHD ICG VIDEO CAMERA INKL. ELECTRONICAL ZOOM AND CAPTURE

Technical data

Camera head	Aspect ratio: 16:9, Image sensor: 4x 1/3" CMOS (R,G,B,NIR) Immersible (using the attached cap)
System	
Voltage range (current consumption)	100-240 V
Frequency	50-60 Hz (interlaced scan)
Video system	Image resolution: UHD 3840 x 2160, White balance automatically, with data hold,
Video output	1xHDMI 4K (3840x2160), 1xHDMI Full HD (1920x1080), 1x SDI 4K (4xBNC) (2840x2160), 1x SDI Full HD (1xBNC) (1920x1080)
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, 1920x1080/59.94p, 1920x1080/59.94i, 1920x1080/50p, 1920x1080/50i
Display mode:	3 modes: RGB , RGB+NIR (Overlay), RGB+NIR (Split Screen)



Capture	Image, Video
Protection class (acc. to IEC 60601-1)	I
Safety class	BF
IP code	IP 20
Standard	IEC-60601-1-2 / IEC-60601-1
Device classification (EU) 2017/745, annex VIII	I
Dimensions	approx 306mm x 360mm x 140mm (d x w x h), weight 6kg

Delivery contains

CCU, camera head, mains cable, user manual

3.2 | ICG LED HIGH INTENSITY LIGHT SOURCE STEMA LED ICG

- *Laser free light source*
- *Daylight quality high CRI >90*
- *Touch panel*



CB-005-009

Ordering no.	Product
CB-005-009	STEMA LED ICG | LED ICG COLD LIGHT SOURCE

Technical data

System

LED module	LED with approx. CRI 90, Daylight quality, approx. 5600 K, Lifetime: >20.000 hr, ICG light and standard LED white light, 5 operating modes (White/ICG)
Voltage range (current consumption)	100-240 V (130 VA)
Frequency	50-60 HZ
Other connections	Service (RJ45)
Protection class	I
Safety class	BF
IP code	20
Standard	IEC 60601-1-2
Device classification (EU) 2017/745, annex VIII	I
Dimensions	approx. 306mm x 360mm x 140mm (d x w x h)
Weight	approx. 5kg
Light guide connection	STEMA, Storz



Please find the accessories for our light sources on page 41.

Delivery contains

Light Source, mains cable, user manual

3.3 | ICG LIGHT GUIDES

Ordering No.	Description	Diameter	Length
CK-001-062	ICG Glass Fibre Light Guide	3.5 mm	2300 mm
CK-001-063	ICG Glass Fibre Light Guide	3.5 mm	3000 mm
CK-001-064	ICG Glass Fibre Light Guide	3.5 mm	3500 mm
CK-001-052	ICG Glass Fibre Light Guide	4.8 mm	2300 mm
CK-001-053	ICG Glass Fibre Light Guide	4.8 mm	3000 mm
CK-001-054	ICG Glass Fibre Light Guide	4.8 mm	3500 mm



4. COMBINATION

4.1 | STEMA COMBI UNIT PRO

4.1 | COMBINATION STEMA COMBI UNIT PRO

- *Multifunctional system*
- *Camera and Lightsource*
- *Image and video recording*
- *Full HD resolution*
- *Multilingual menu*
- *8 endoscope presets available*



CE-003-005

Ordering no.	Product
CE-003-005	STEMA COMBI UNIT PRO | 1 CMOS CAMERA, 80 WATT LED COLD LIGHT SOURCE

Technical data

Camera head	Remote, 1MOS HD, 1/3", black, 3 push buttons, without cable bend relief
Aspect ratio	16:9
Image sensor	1/3" CMOS
System	
Voltage range (current consumption)	100-240 V (95 VA)
Frequency	50-60 Hz (interlaced scan)
Device protection	2x T3,15 A
Video system	Image resolution: Full HD 1920 x 1080, TV-resolution: >900 lines, White balance automatically, with data hold, Sensitivity: <3 lux (1/1.4)
Recording	Image format: JPG 1920x1080, Video format: Full HD 1920x1080, Connection: USB (A)
Lamp	LED lamp, comparable 50 W
Light guide connection	STEMA, Storz
Connections	Video out terminal: 1x HDMI, 1x DVI, 1x SDI, 1x Video Other connections: 1x USB (A) (Service), 1x Remote IN (footswitch), 1x RJ45 (Service)
Protection class (acc. to IEC 60601-1)	I
Safety class	BF
IP code	20
Standard	IEC-60601-1-2
Device classification (EU) 2017/745, annex VIII	I
Features	White balance, Freeze function, Digital zoom, 8 endoscope presets, On-screen-menu, Multilingual menu
Dimensions	Control Unit: 295x128x278 mm, Weight: approx. 3kg



Please find the accessories for our light sources on pages 32-36.

Delivery contains

CCU, camera head with 3,05m cable, mains cable, HDMI- DVI cable, user manual

5. INSUFFLATORS

5.1 | INSUFFLATOR STEMA FLOW

STEMA FLOW 20

STEMA FLOW 20-H

STEMA FLOW 30

STEMA FLOW 30-H

STEMA FLOW 45

STEMA FLOW 45-H

5.2 | ACCESSORIES FOR INSUFFLATORS

5.1 | INSUFFLATORS STEMA FLOW

STEMA FLOW 20 | STEMA FLOW 20-H

- **Full automatic**
- **Filter system for sterility**
- **Gas flow up to 20 liters / minute**
- **Microprocessor controlled**



CC-001-002



CC-001-012

Ordering no.

Product

CC-001-002

STEMA FLOW 20

CC-001-012

STEMA FLOW 20-H | WITH SYSTEM GAS HEATER

Technical data

Gas	Carbon dioxide (medical)
Gas flow	Max. 20 l/min.
Gas connection	UNF 7/16"
Insufflation pressure	0-30 mmHg
Power supply	100-240 VAC, 50-60 Hz
Power consumption	STEMA FLOW 20: 25 - 40 VA STEMA FLOW 20H: 25-105 VA
Device protection	2 x T3, 15 A
Protection class (aa. IEC 60601-1)	I
Safety class	BF
IP code	IP 20
Standard	IEC 60601-1-1, IEC 60601-1-2
Device classification (EU) 2017/745, annex VIII	IIb
Dimensions	355 x 105 x 253mm (w x h x d)
Weight	6.7 kg



Please find the accessories for our insufflators on pages 48-50.

Delivery contains

Insufflator (control unit), CO₂ high pressure tube with UNF to German gas connection, wrench set SW17/SW30, sterile filter (1), silicone tube (1), operating manual, cable: mains (1), **STEMA FLOW 20-H: system gas heater with silicone tube set (1)**

5.1 INSUFFLATORS STEMA FLOW

STEMA FLOW 30 | STEMA FLOW 30-H

- *Full automatic*
- *Filter system for sterility*
- *Gas flow up to 30 liters / minute*
- *Microprocessor controlled*



CC-001-003



CC-001-013

Ordering no.	Product
CC-001-003	STEMA FLOW 30
CC-001-013	STEMA FLOW 30-H | with system gas heater

Technical data

Gas	Carbon dioxide (medical)
Gas flow	Max. 30 l/min.
Gas connection	UNF 7/16"
Insufflation pressure	0-30 mmHg
Power supply	100-240 VAC, 50-60 Hz
Power consumption	STEMA FLOW 30: 25 - 40 VA STEMA FLOW 30-H: 25-105 VA
Device protection	2 x T3, 15 A
Protection class (aa. IEC 60601-1)	I
Safety class	BF
IP code	IP 20
Standard	IEC 60601-1-1, IEC 60601-1-2
Device classification (EU) 2017/745, annex VIII	IIb
Dimensions	355 x 105 x 253mm (w x h x d)
Weight	6.7 kg



Please find the accessories for our insufflators on pages 48-50.

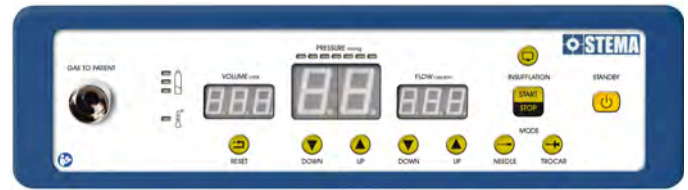
Delivery contains

Insufflator (control unit), CO₂ high pressure tube with UNF to German gas connection, wrench set SW17/SW30, sterile filter (1), silicone tube (1), operating manual, cable: mains (1), **STEMA FLOW 30-H: system gas heater with silicone tube set (1)**

5.1 INSUFFLATORS STEMA FLOW

STEMA FLOW 45 | STEMA FLOW 45-H

- *Full automatic*
- *Filter system for sterility*
- *Gas flow up to 45 liters / minute*
- *Microprocessor controlled*



CC-001-004



CC-001-014

Ordering no.	Product
CC-001-004	STEMA FLOW 45
CC-001-014	STEMA FLOW 45-H | with system gas heater

Technical data

Gas	Carbon dioxide (medical)
Gas flow	Max. 45 l/min.
Gas connection	UNF 7/16"
Insufflation pressure	0-30 mmHg
Power supply	100-240 VAC, 50-60 Hz
Power consumption	STEMA FLOW 45: 25 - 40 VA STEMA FLOW 45-H: 25-105 VA
Device protection	2 x T3, 15 A
Protection class (aa. IEC 60601-1)	I
Safety class	BF
IP code	IP 20
Standard	IEC 60601-1-1, IEC 60601-1-2
Device classification (EU) 2017/745, annex VIII	IIb
Dimensions	355 x 105 x 253mm (w x h x d)
Weight	6.7 kg



Please find the accessories for our light sources on pages 48-50.

Delivery contains

Insufflator (control unit), CO₂ high pressure tube with UNF to German gas connection, wrench set SW17/SW30, sterile filter (1), silicone tube (1), operating manual, cable: mains (1), **STEMA FLOW 45-H: system gas heater with silicone tube set (1)**

5.2 INSUFFLATORS | ACCESSORIES

Ordering no.

CJ-002-001 Gas heater for insufflators, autoclavable



Ordering no.

CJ-002-002 Silicone tubing set, length 2.5m, autoclavable



Ordering no.

CJ-002-003 Silicone tubing set for use with system gas heater, length 2.5m, autoclavable



Ordering no.

CJ-002-004 Sterile filters, 50 pieces per box

CJ-002-019 Sterile filters, 100 pieces per box



5.2 INSUFFLATORS | ACCESSORIES

Ordering no.

CJ-002-008 High pressure tube (CO₂) for STEMA insufflators,
connections: **UNF / GER**, length 1.0m



Ordering no.

CJ-002-012 High pressure tube (CO₂) for STEMA insufflators,
connections: **DIN GER / DIN GER**, length 1.0m



Ordering no.

CJ-002-014 High pressure tube (CO₂) for STEMA insufflators,
connections: **UNF / UNF**, length 1.0m



Ordering no.

CJ-002-031 Membrane for High pressure reducer, Insufflators

5.2 INSUFFLATORS | ACCESSORIES

Ordering no.

CJ-002-016 High pressure tube (CO₂) for STEMA insufflators,
connections: **UNF / GER**, length 1.0m



Ordering no.

CJ-002-018 High pressure tube (CO₂) for STEMA insufflators,
connections: **UNF / ISO**, length 1.0m



Ordering no.

CJ-002-026 Gas bottle (CO₂), connection: **GER**, 0.75 kg

CJ-002-027 Gas bottle (CO₂), connection: **PIN index**, 0.75 kg



6. SUCTION-IRRIGATION SYSTEMS

6.1 | IRRIGATION PUMP
STEMA HYS | URO | ARTHRO
ACCESSORIES

6.2 | SUCTION IRRIGATION PUMP
STEMA I
ACCESSORIES

STEMA PRO 2S
ACCESSORIES



6.1 | IRRIGATION PUMP

STEMA HYS / URO / ARTHRO

- *Full automatic*
- *Performance according to indication*
- *Exact pressure measuring*
- *Highest safety and user comfort*



CG-001-001

Ordering no.	Product
CG-001-001	STEMA HYS | IRRIGATION PUMP FOR HYSTEROSCOPY
CG-001-002	STEMA URO | IRRIGATION PUMP FOR UROLOGY
CG-002-001	STEMA ARTHRO | IRRIGATION PUMP FOR ARTHROSCOPY

Technical data	
Irrigation	STEMA HYS: Max. 500 ml/min
.....	STEMA URO: Max. 1000 ml/min
.....	STEMA ARTHRO: Max. 1.500 ml/min
Pressure range	STEMA HYS: 10-200 mmHg
.....	STEMA URO: 10-150 mmHG
.....	STEMA ARTHRO: 10-150 mmHG
Power supply	100-240 VAC or 220-240 VAC, 50/60Hz
Dimensions	304 x 115 x 345 (w x h x d)
Weight	8.0 kg
Classification	1 / BF
Certificates	CE, DIN EN 60601-1:2005



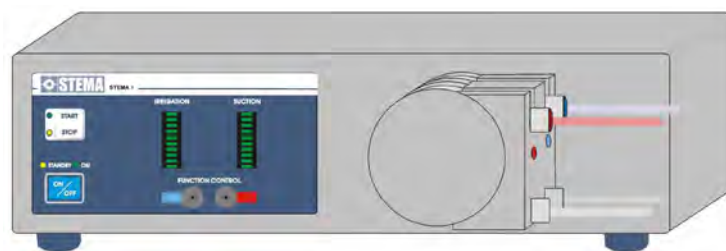
Please find the accessories for our irrigation pumps on pages 54-55.

Delivery contains

Pump, silicone tubing set autoclavable (1), fuses (2), operating manual, cable: mains (1)

6.1 | SUCTION-IRRIGATION PUMP STEMA I

- *Full automatic*
- *Irrigation capacity up to 3l/min*
- *Suction capacity up to 3l/min*
- *Highest safety and user comfort*



CG-003-001

Ordering no.	Product
CG-003-001	STEMA I

Technical data

Irrigation	Max. 3.000 ml/min.
Suction	Max. 3.000 ml/min.
Pressure range	0- 750 mmHg
Power supply	100- 240 VAC or 220- 240 VAC, 50/60 Hz
Dimensions	300 x 93 x 260mm (w x h x d)
Weight	6.5 kg
Classification	1/BF
Certificates	CE, IEC 601-1, EN 60601-1, 93/42 ECC



Please find the accessories for our irrigation pumps on pages 54-55.

Delivery contains

Pump, pneumatic manual control incl. double lumen connection tube, double adaptor, silicone tubing set autoclavable (1), fuses (2), operating manual, cable: mains (1)

6.1 ACCESSORIES | STEMA HYS / URO / ARTHRO / STEMA I

Ordering no.

CJ-005-005 Euro mains cable, 2m



Ordering no.

CJ-005-006 Fuse T 400ma, 5 x 20, PU 10 pieces



Ordering no.

CJ-005-012 Pneumatic hand control, autoclavable



Ordering no.

CJ-005-011 Silicone tubing set, autoclavable



6.1 ACCESSORIES | STEMA HYS / URO / ARTHRO / STEMA I

Ordering no.

CJ-005-023 Pressure measuring chamber for **CG-001-001**, **CG-001-002** and **CG-002-001** autoclavable



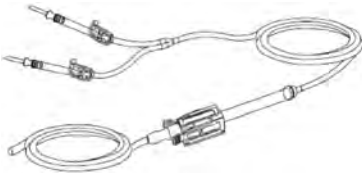
Ordering no.

CJ-005-020 Silicone tubing set, autoclavable



Ordering no.

CJ-005-022 PVC tubing set, single use, 20 pieces



6.2 | SUCTION-IRRIGATION PUMP STEMA PRO 2S



CG-001-030

Pump (control unit):

- The pump (control unit) is equipped with a high-resolution colour touchscreen which provides intuitive operation in the chosen language
- Additional languages can be added on customers request
- In addition to pressure regulated irrigation function the pump offers suction function as standard

Balance Unit

- The balance unit is supported in the applications hysteroscopy and urology and will provide the highest safety standards
- It comprises several functions to ensure a smooth and convenient surgical procedure

Foot Switch

- The footswitch has been developed for an advanced wireless communication with the pump
- Precise control of the lavage procedure during operation and furthermore continuously adjustment of irrigation flow during the operation
- The footswitch will be supplied with battery pack and charger

Delivery contains

Pump (control unit) incl. LAP and one further license, suction container, autoclavable tubing set for irrigation (silicone), autoclavable tubing set for suction (silicone) incl. filter, spare fuses, operating manual, cable: mains (1)

6.2 | SUCTION-IRRIGATION PUMP

STEMA PRO 2S



CG-001-030

Ordering no.	Product
CG-001-030	STEMA PRO 2S
CG-001-031	LICENSE KEY LAPAROSCOPY
CG-001-032	LICENSE KEY ARTHROSCOPY
CG-001-033	LICENSE KEY HYSTEROSCOPY
CG-001-034	LICENSE KEY UROLOGY
CG-001-035	LICENSE KEY SPINE

Technical data

Suction capacity	Vacuum max. -480 mmHg $\pm$ 10% – Flow max 2.200 ml/min
Flow range	Arthroscopy: 100-2.200 ml/min
.....	Hysteroscopy: 100-500 ml/min
.....	Laparoscopy: 100-2.200 ml/min
.....	Urology: 100-1.000 ml/min
.....	Spine: 100-750 ml/min
Pressure range	Arthroscopy: 10-150 mmHg
.....	Hysteroscopy: 10-200 mmHg
.....	Laparoscopy: Max. 300 mmHg
.....	Urology: 10-150 mmHg
.....	Spine: 10-100 mmHg
Balance unit	Fluid loss detection: 0-2 l $\pm$ 10%, relative to total inflow volume
Load on scale	Max. 25 kg
Operating conditions	Temperature: +10°C to +40°C
.....	Rel. humidity: 15-75% (non condens.)
.....	Air pressure: 70-106 kPa
.....	Max. operating altitude: 3.000m ab. sea level
Storage/transport conditions	Temperature: -20°C to +40°C
.....	Relative humidity: 10-85% (non cond.)
.....	Air pressure: 70-106 kPa
Interfaces	RS 232, USB 1.1 type A, wireless connection footswitch max. 20m
Power supply	100-240 V/AC, 50-60 Hz
Power consumption	100 VA
Power input	400-700 mA
Mains fuse	T3, 15 AH, 250 V (5x20mm), 2 pieces
Dimensions	360 x 133 x 354mm (w x h x d)
Weight	9.8 kg
Classification	Protection class I, type BF, IP 41
Classification according appendix IX of MDD	Ila
Certificates	IEC 60601-1, IEC 60601-1-2

6.2 ACCESSORIES | STEMA PRO 2S



Ordering no.

CJ-005-043 Mains cable, 2m



Ordering no.

CJ-005-044 Spare fuses, PU 2 pieces



Ordering no.

CJ-005-041 Measuring chamber with pump segment, autoclavable, non sterile

Ordering no.

CJ-005-042 Spare membran used for measurement chamber, 10 pcs.

6.2 ACCESSORIES | STEMA PRO 2S



Ordering no.

CJ-005-030 Foot switch used for CG-001-030, incl. charger

CJ-005-031 Charger for CJ-005-030



Ordering no.

CJ-005-032 Balance unit

CJ-005-045 Balance pan for balance unit CJ-005-032



Ordering no.

CJ-005-033 Tubing set for irrigation (silicone) for CG-001-030, autoclavable, non sterile



Ordering no.

CJ-005-034 Tubing set for suction (silicone) for CG-001-030, autoclavable, non sterile

CJ-005-035 Tubing set for irrigation (PVC) for CG-001-030, disposable, sterile, PU 20 pieces

CJ-005-036 Tubing set for suction (PVC) for CG-001-030, disposable, sterile, PU 20 pieces

CJ-005-036 Patient tube (PVC) for CG-001-030, disposable, sterile, PU 40 pieces

6.2 ACCESSORIES | STEMA PRO 2S

Ordering no.

CJ-005-037 Vacuum Suction tubing set used for pump CG-001-030, single use, 40 pcs, used for all indication



Ordering no.

CJ-005-038 Suction container, 2 liters, autoclavable, non sterile



Ordering no.

CJ-005-039 Holder for suction container CJ-005-038



Ordering no.

CJ-005-040 Hydrophobic filter for tubing sets of silicone, autoclavable, non sterile

7. RECORDING

7.1 | HD DVD RECORDER
SONY HD RECORDER HVO-3300MT

7.2 | FULL HD VIDEO RECORDER
SONY FULL HD RECORDER HVO-550 MD
SONY FULL HD RECORDER HVO-4000MT
MEDICAPTURE MVR PRO

7.1 | HD DVD RECORDER

SONY HD RECORDER HVO-3300MT

- *Easy handling*
- *Long recording time*
- *High quality records in HD und SD*
- *Supports a wide range of media*



CF-006-006

Ordering no.	Product
--------------	---------

CF-006-006

SONY HD RECORDER HVO-3300MT

Technical data

Recording device	Internal hard disk drive with 2 TB
Recordable media	Internal HDD (2TB), external USB storage, network (CIFS), DVD-R, BD-R SL/BD-R DL, BD-RE SL/BD-RE DL
Recording video format	MPEG4 AVC/H.264
Recording audio format	AAC LC
Recording file format	MP4
Inputs	3G/HD/SD-SDI (BNC x 2), DVI-D (Single-Link x 2), S-Video (Mini-DIN, 4 pins x 1), video (BNC x 1), RGB (Mini-D-Sub, 15 pins x 1), audio (stereo mini jack x 1), MIC (stereo mini jack x 1), AC-Input (3 pins x 1)
Outputs	3G/HD/SD-SDI (BNC-Typ x 1), DVI-D (Single-Link x 1), S-Video (Mini-DIN, 4 pins x 1), video (BNC x 1), audio (stereo mini jack x 1)
Other interfaces	USB 3.0 (Type A x 2), USB 2.0 (Type A x 4), USB 2.0 (Type B x 1), network (RJ-45, 1000 Base-T/100 Base-TX x1), remote RS-232C (D-Sub, 9 pins x 1), remote contact switch (stereo mini jack x 4), menu monitor (Mini-D-Sub, 15 pins x 1)
Power supply	100- 240 VAC, 50/60 Hz
Dimensions	305 x 115.5 x 329mm (w x h x d)
Weight	6.5 kg
Certificates	CE, IEC 60601-1

Delivery contains

Recorder, operating manual (CD-ROM), infrared remote control unit (1), warranty booklet (1)

7.2 | FULL HD VIDEO RECORDER

SONY FULL HD RECORDER HVO-550 MD

- *Easy handling*
- *Simultaneous recording on internal harddrive and external media*
- *Videorecording in Full HD*
- *Long recording times in Full HD*



CF-006-004

Ordering no.

Product

CF-006-004

SONY FULL HD RECORDER HVO-550MD

Technical data

Recording device	MPEG4 AVC/H.264
Recording media	Internal hard drive with 500 GB, external USB-Mass storage, network (CIFS)
Resolution	1920 x 1080/50i, 1920 x 1080/59,94i, 1280 x 720/59,94p, 1280 x 720/50p, 720 x 480/59,94i
Inputs	HDMI (Type A x 1), DVI-D (DVI, 19-polig x 1), S-Video (Mini-DIN, 4 pins x 1), Video (BNC x 1), Audio (stereo jack socket x 1)
Other interfaces	USB-Connection (Type A x 3), USB (Type B x 1), Network (RJ-45, 1000 Base-T / 100 Base-TX x 1), Remote RS-232C (D-Sub 9-pins x 1), Remote Contactswitch (stereo jack socket x 2)
Supply voltage	12 V- 24 V DC, supply through power adaptor AC-80MD
Input voltage	3.2 A to 1.6 A
Dimensions	212 x 287.7 x 105.5mm (w x h x d)
Weight	2.9 kg
Certificates	CE, IEC 60601-1

Delivery contains

Recorder, operating manual (CD-ROM), power adaptor AC-80MD (1)

7.2 | FULL HD RECORDER

SONY FULL HD 4K3D RECORDER HVO-4000MT

- **4K video recording**
- **Simultaneous recording in 4K and 2K (Full HD)**
- **Simultaneous recording on internal HDD and external media**
- **Long recording times in Full HD**
- **Network compatibility and DICOM storage**



CF-006-005

Ordering no.

Product

CF-006-005

SONY FULL HD 4K3D RECORDER HVO-4000MT

Technical data

Recording device	MPEG4 AVC/H.264, XAVC S, MP4
Recording media	Internal hard drive with 4 TB, external USB-Mass storage, network (CIFS), DVD-R, BD-R/BD-R DL, BD-RE/BD-RE DL
Resolution (input)	4096 x 2160, 3840 x 2160
Resolution (output)	3840 x 2160, 1920 x 1080
Recording 4k (bit rate)	150Mbps (best), 100Mbps (high), 60Mbps (standard)
Recording HD (bit rate)	24Mbps (best), 18Mbps (high), 12Mbps (standard)
Recording 3D	Line by line, top and bottom
Other interfaces	2 x USB 3.0 (Typ A), 4 x USB 2.0 (Typ A), 1 x USB 2.0 (Typ B), 1 x Network (RJ-45, 1000 Base-T / 100 Base), 1 x Remote RS-232C (D-sub 9-pin)
Power requirements	100 V to 240 V AC, 50/60 Hz
Input voltage	1.25 A to 0.52 A
Dimensions	305 x 115.5 x 329mm (w x h x d)
Weight	6.5 kg
Certificates	CE, IEC 60601-1

Delivery contains

Recorder, operating manual (CD-ROM), infrared remote control unit (1), warranty booklet (1)



MVR PRO

THE NEXT GENERATION VIDEO RECORDER

**SIMPLE
CONNECTED
POWERFUL**



The Next-Generation Video Recorder

Multi-featured, the MVR Pro benefits from MediCapture's unique Smart Workflow that enables surgical teams to control the recorder according to preference including touchscreen or tablets⁴. It also enables the user to jump from recording to managing data with the swipe of a finger.

Full Patient Workflow

The MVR Pro comes with full patient workflow, including a DICOM Upgrade Package¹ option, for easy and fast retrieval of patient information and transfer of studies to PACS.

Multi-Input Recording

Directly toggle between two inputs and perform parallel or picture-in-picture recordings.

Multi-Storage/DLM

Recordings can be saved up to two locations in different recording resolutions. Data Life Management optimizes storage space.

MVR Manager

Browse and review all patient files. Zoom, take snapshots, cut video. Add notes, report in PDF, print and archive as you wish.

7.2 | FULL HD VIDEO RECORDER MVR PRO



CF-004-017 | CF-004-018

Ordering no.	Product
CF-004-017	MVR PRO
CF-004-018	MVR PRO | Upgrade 4K

Technical data

Device type	HD Medical Video Recorder
	Records High-Definition video and still images from medical video sources to: USB, internal storage, network storage. Exports video and images to PACS in DICO format1
Case/Buttons	Stainless steel, fluid resistant
User Interface	Overlay on internal touchscreen monitor, or external monitor
Video Inputs	Multi-Input: 2x HDMI, DVI (with adapter), 4K-SDI with MVC Pro SDI to HDMI (optional)
Video Outputs	1x HDMI, DVI (with adapter)
Video Input Resolutions	4K on Input 1 only5: 3840x2160p30, Both inputs (1+2): 1920x1200p60, 1080p60/50/30/25, 1080i60/50, 1280x1024p60/50, 720p 60/50
Video Recording Resolutions	3840x2160, 1920x1200, 1920x1080, 1280x1024, 1280x720. For 3840x2160 recording, "4K recording" needs to be activated
Video Recording Bitrates	MP4 / coding H.264 up to 32 Mbit/s (1920x1080 p60), lower resolutions have Lower bitrates MP4 / coding HEVC (H.265) reduces bitrate by 50%
Image Format	JPG, PNG
Sound Recording	Bluetooth Mic, Mic by Stereo Headset (4 poles), USB Mic / Audio embedded in video
Internal Storage	128GB | Extension on request
External Storage	USB flash drive, USB hard drive (FAT32, NTFS, exFAT)
USB Support	USB3.0, SuperSpeed, 1 front connector, 2 rear connectors
Network Storage	External Server, 1000/100/10Mbit/s
Footswitch/Trigger	3,5mm mini jack. Compatible with standard footswitches (not included) and closed-contact camera triggers, Bluetooth footswitches
Remote Control	IR remote (included), RS232 (via USB adapter), JSON API over http and Over RS232, MVR Remote App
Mechanical (touchscreen closed)	Size: 173 x 153 x 50mm / 6,7 x 6,0 x 2" | Weight: 1,20 kg / 2lb 13oz
Environmental	Storage: -40°C to +85°C | Operating: -20°C to +40°C
Power	AC 100-240V, 50-60Hz, 0.4-0.2A, 3 prong AC jack
Certifications	MDR 2017/745, CE 93/42/EEC, EN 60601-1:2006 + A1:2013 + A12:2014 (Ed 3.1), EN 60601-1-2:2015 (Edition 4), EN 60601-1-6:2010+A1:2015, EN 50581:2012, RED 2014/53/EU, FCC Part 15, Subpart B, Class B Class 1, Equipment according to US-FDA and MDR 2017/745, RoHS3 / WEEE / ISO 13485: 2016

Delivery contains

MVR recorder, USB flash drive, HDMI cable, Wi-Fi / BT antenna, HDMI to DVI adapter, Split Remote Cable Adapter, Power Cable, IR Remote Control, Rubber Feet (4), User Guide (English)

8. IMAGE AND DATA ARCHIVING SYSTEM

8.1 | STEMA PRO

8.2 | OPTIONS

IMAGE AND DATA ARCHIVING SYSTEM STEMA PRO



IMAGE AND DATA ARCHIVING SYSTEM – SOFTWARE FOR MEDICAL VIDEO DOCUMENTATION

With the „STEMA PRO | IMAGE DATA ARCHIVING SYSTEM“ sophisticated users get a comprehensive tool for acquisition, documentation and archiving of HD video and picture findings in the daily practice.

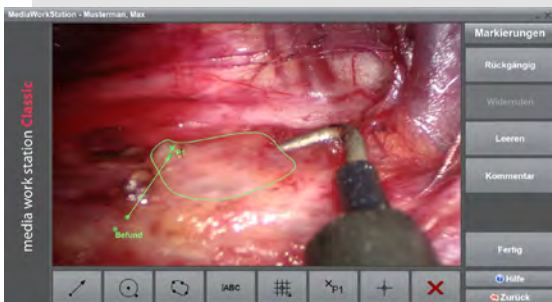
An extensive set of tools gives the ability for easy creation of individual and complex findings reports. Easy integration into IT-environment ensures an optimal workflow. The database provides long term availability of picture findings with almost no capacity limitat



DIAGNOSTICS & RECORDING



RECORD VIDEOS AND PICTURES



EDIT GRAPHICAL MARKERS

FEATURES

- Simple and intuitive user interface
- Recording of videos and individual pictures
- Direct switching between four cameras
- Preview with split display for „live“ image and individual images
- Structured saving of all recordings in a database
- Network mode with centralized storage of patient and findings data
- Playing videos with random seek, enlargement and extraction of individual images
- Video and picture comparison
- Manual input of comments for sessions and recordings
- Graphical markers with individual comments
- By medical field separated databases for comments
- Video cut functionality
- Remote control for the recording function via foot switch, USB or by camera
- Compatible to all cameras and converters with DirectShow technology
- Context sensitive help system





DOCUMENTATION & MANAGEMENT



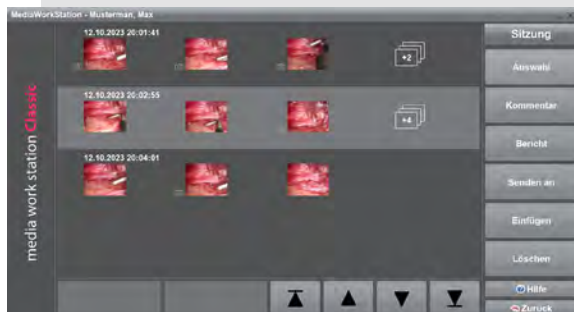
EDIT PATIENT DATA

FEATURES

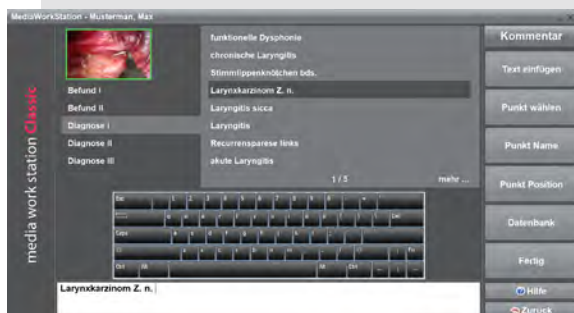
- Creation of reports in HTML format including patient information, pictures, videos and comments
- Communication with EPR (DICOM Worklist, GDT)
- User management including separation for special patients
- Operation by touch screen including screen keyboard
- Direct control of camera settings of supported types of cameras
- Automatic database backup
- Language selection for German, English, French, Italian, Spanish, Russian, Turkey, Chinese

OPTION:

DICOM Worklist | DICOM export of medical reports and pictures via DICOM. License is required for each workstation



ARCHIVE



EDIT COMMENTS

8.1 | IMAGE AND DATA ARCHIVING SYSTEM STEMA PRO

- Simple and intuitive user interface
- Recording of videos and pictures
- Direct switching between four cameras
- Structured saving of all recordings in a database
- PACS support DICOM Worklist/Store
- Playing videos with abstraction of individual images
- Manual input of comments for sessions and recordings



Ordering no.	Product
CO-002-001	STEMA PRO | IMAGE AND DATA ARCHIVING SYSTEM INCLUDES: HARDWARE: PC MEDICAL WORKSTATION TERRA AIO I5 PLUG ADAPTER VIDEO CONVERTER MOUNT VIDEO CONVERTER FOOTSWITCH SOFTWARE: MEDIAWORKSTATION CLASSIC MAINTENANCE AGREEMENT LANGUAGE PLUS PREINSTALLATION

Ordering no.	Options
CO-002-010	KEYBOARD GLAS CLEANKEYS CK5 US/EU
CO-002-011	DICOM WORKLIST WITH SMA

8.1 | IMAGE AND DATA ARCHIVING SYSTEM | STEMA PRO HARDWARE

Specification | PC Medical Workstation TERRA AIO i5



Display	1920 x 1080 (Full HD) 21,6"/54,6cm TN-LCD, LED-backlight
Operating system	Windows 10 Pro x64
CPU	Intel Core i5 (12. Gen)
RAM	2x 8G RAM
Storage	SSD 500 GB M.2 module
Graphic card	Intel UHD Graphics 730
Network	2x LAN 10/100/1000 Mbps
Warranty	24 months
Features	10-point multitouch, Audio system integrated

Specification | AIO Power Supply Medical 19V 135W Plug Adapter



Input	100-240 V, mains plug
Output	Output 19 V/7, 1, A, 135 Watt, 90° dc connector, 7.4/5.1 mm, cable length 1.2m
Classification	TÜV IEC 60601-1, CE, RU, RoHS, MPG conform acc. DIN EN 60601-1

Specification | Footswitch Wireless Two Pedals HD



Features	Footswitch for MediaWorkStation 2 Pedals Compatible to Windows 10/8/7 Automatic driver installation Controls image AND video recording Wireless, receiver USB connection, Bluetooth
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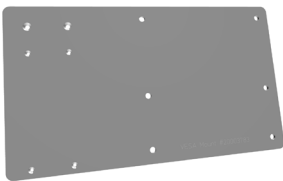
8.1 | IMAGE AND DATA ARCHIVING SYSTEM | STEMA PRO HARDWARE

Specification | Video Converter 4K30 SDI to USB3



Features	Video Converter 4K30 SDI to USB3 One channel 4K capture device, CaptureSD/HD/3G/2K/6G SDI + embedded audio, Loop-through SD/HD/3G/2K/6G SDI, Audio input via Line in, Extract SDI embedded audio and output via Line out 1920×1080 YUY2 (up to 90fps), 3840×2160 NV12 (up to 30fps) Windows 7/8/8.1/10, Dimensions: 98.1mm (L) x 56.8mm (W) x 17mm (H), 5V max current: ~1.4A, Operating temperature: 0 to 40 deg C, Storage temperature: –20 to 70 deg C, Relative Humidity: 5% to 90% non-condensing
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Specification | VESA Mount Video Converter



Features	VESA mount for video converter HDMI/SDI to USB3 VESA 100x100, 100x40, 100x60 mm standard
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8.1 | IMAGE AND DATA ARCHIVING SYSTEM | STEMA PRO SOFTWARE

Media Workstation Classic Software

- Software "MediaWorkStation- Classic Edition" for video documentation in medicine

Maintenance Agreement

- Support by phone and e-mail, remote support
- Response time of one work day
- Minimum contract duration 1 year

Language Plus

- Windows 10
- German, English, French, Spanish, Italian, more languages on request only in connection with Medical Workstation

Specification | Preinstallation

MediaWorkStation installation (only DEMO license), activation if license is available, configuration, function test, documentation, language according to system language, only in connection with Medical Workstation

8.2 | IMAGE AND DATA ARCHIVING SYSTEM | STEMA PRO OPTIONS

Specification | Keyboard Glass Cleankeys CK5 US/EU



USB Keyboard with complete flat Gorilla glass surface
 Washable and disinfectable
 98 keys with integrated Touchpad
 Volume and sensitivity are adjustable
 Key lock to disable
 Output: USB
 Colour: grey-white
 VESA mounting
 Dimensions: ca. 405 x 167 x 22,5 mm
 Weight: 750g
 Language: US English international

Specification | DICOM Worklist



DICOM Worklist processing
 Export of medical reports, pictures and videos
 Including Support by phone and e-mail, remote support
 response time of one work day,
 software upgrades with special conditions,
 minimum contract duration 1 year

9. HF UNITS

**9.1 | HF UNIT STEMA MASTER
STEMA MASTER
STEMA MASTER SDS
ACCESSORIES STEMA MASTER SERIES**

**9.2 | HF UNIT HF-U
STEMA HF-U PRO TOUCH
STEMA HF-U PRO
STEMA HF-U HYS
ACCESSORIES STEMA HF-U SERIES**

9.1 | HF UNIT

STEMA MASTER

- *Perfect use in various fields*
- *Automatic power regulation*
- *Voice communication*
- *10" high resolution screen*



CI-001-006

Ordering no.	Product
CI-001-006	STEMA MASTER TOUCH SCREEN HF-ELECTROSURGICAL UNIT

Technical data

Power supply	110 VAC, 220-230 VAC
Frequency	50/60 Hz
Dimensions	495 x 415 x 225mm (w x h x d)
Weight	12.2 kg
Classification	1/CF
Certificates	CE, EN 60601-1, EN 60601-2-2

Operating modes

Mono cut	400 W at 100-150 Ω
Precise cut	50 W at 50-750 Ω
Mixed cut	150 W at 50-100 Ω
Muco cut	400 W at 50 Ω
Polipo cut	400 W at 50 Ω
Papillo cut	400 W at 50 Ω
Arthro cut	400 W at 100-250 Ω
Uro cut	400 W at 50-300 Ω
Hystero cut	400 W at 100-250 Ω
Soft coagulation	50 W at 200 Ω
Forced coagulation	200 W at 150-500 Ω
Hybrid coagulation	200 W at 150-500 Ω
Spray coagulation	80 W at 1250-1750 Ω
Endo coagulation	30 W at 2000 Ω
Arthro coagulation	200 W at 50 Ω
Uro coagulation	200 W at 50 Ω
Hystero coagulation	200 W at 50 Ω
Bipolar cut	120 W at 50-400 Ω
Bipolar cut „Arthro“	400 W at 100 Ω
Bipolar cut „Uro“	400 W at 125-250 Ω
Bipolar coagulation „Soft“	120 W at 50-100 Ω
Bipolar coagulation „Forced“	120 W at 100-500 Ω
Bipolar coagulation „Arthro“	350 W at 25 Ω
Bipolar coagulation „Uro“	350 W at 25 Ω
Connections	Monopolar, bipolar, neutral electrode, argon (2xSDS, 2x Standard)

Delivery contains

HF unit, operating manual, cable: mains (1); The suitable electrodes you will find in our catalogue for HF surgery.

9.1 | HF UNIT

STEMA MASTER SDS

- *Perfect use in various fields*
- *Recognition of instruments - SDS*
- *Automatic power regulation*
- *Voice communication*
- *10" high resolution screen*



CI-001-008

Ordering no.	Product
CI-001-008	STEMA MASTER TOUCH SCREEN HF-ELECTROSURGICAL UNIT, SDS VERSION

Technical data

Power supply	110 VAC, 220-230 VAC
Frequency	50/60 Hz
Dimensions	495 x 415 x 225mm (w x h x d)
Weight	12.2 kg
Classification	1/CF
Certificates	CE, EN 60601-1, EN 60601-2-2

Operating modes

Mono cut	400 W at 100-150 Ω
Precise cut	50 W at 50-750 Ω
Mixed cut	150 W at 50-100 Ω
Muco cut	400 W at 50 Ω
Polipo cut	400 W at 50 Ω
Papillo cut	400 W at 50 Ω
Arthro cut	400 W at 100-250 Ω
Uro cut	400 W at 50-300 Ω
Hystero cut	400 W at 100-250 Ω
Soft coagulation	50 W at 200 Ω
Forced coagulation	200 W at 150-500 Ω
Hybrid coagulation	200 W at 150-500 Ω
Spray coagulation	80 W at 1250-1750 Ω
Endo coagulation	30 W at 2000 Ω
Arthro coagulation	200 W at 50 Ω
Uro coagulation	200 W at 50 Ω
Hystero coagulation	200 W at 50 Ω
Bipolar cut	120 W at 50-400 Ω
Bipolar cut „Arthro“	400 W at 100 Ω
Bipolar cut „Uro“	400 W at 125-250 Ω
Bipolar coagulation „Soft“	120 W at 50-100 Ω
Bipolar coagulation „Forced“	120 W at 100-500 Ω
Bipolar coagulation „Arthro“	350 W at 25 Ω
Bipolar coagulation „Uro“	350 W at 25 Ω
Connections	Monopolar, bipolar, neutral electrode, argon (4x SDS)

Delivery contains

HF unit, operating manual, cable: mains (1); The suitable electrodes you will find in our catalogue for HF surgery.

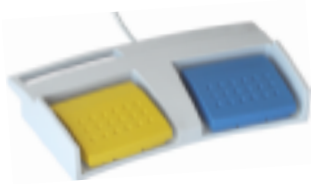
9.1 | HF UNIT

ACCESSORIES | STEMA MASTER SERIES



Ordering no.

- CI-001-015** Triple pedal foot switch used for STEMA MASTER, 5m cable
- CI-001-019** Wireless triple foot switch used for STEMA MASTER, 5m cable



Ordering no.

- CI-001-016** Double foot switch used for STEMA MASTER, 5m cable
- CI-001-017** Double pedal foot switch used for STEMA MASTER, 5m cable, multiswitch
- CI-001-018** Wireless double pedal foot switch used for STEMA MASTER, 5m cable, multi switch



Ordering no.

- CI-001-020** One pedal foot switch used for STEMA MASTER, 5m cable, cutting only
- CI-001-022** Wireless one pedal foot switch used for STEMA MASTER, 5m cable, cutting mode only



Ordering no.

- CI-001-021** One pedal foot switch used for STEMA MASTER, 5m cable, coagulation only
- CI-001-023** Wireless one pedal foot switch for STEMA MASTER, 5m cable, coagulation only

9.1 | HF UNIT

ACCESSORIES | NEUTRAL ELECTRODES



Ordering no.

EK-015-050	Neutral electrode, reusable, 170x300mm, incl. 4m cable, used for STEMA MASTER unit
EK-016-001	Rubber band for reusable neutralelectrodes, perforated, 500mm
EK-016-003	Button for rubber band



Ordering no.

EK-015-054	Neutral electrode, 25x12,5cm stainless steel, incl. cable, used for STEMA, Martin, Berchtold, Erbe Units, 2,5m
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9.1 | HF UNIT

ACCESSORIES | BIPOLAR CABLE

CONNECTION UNIT SIDE



Ordering no.

EK-010-102	HF cable bipolar, angled, SDS identification for STEMA MASTER, flat plug 3m long
EK-010-103	HF cable bipolar, angled, SDS identification for STEMA MASTER, flat plug 5m long



STEMA HF-U PRO TOUCH

ELECTROSURGICAL UNIT FOR
MONOPOLAR AND BIPOLAR
SURGERY WITH 7" TOUCH SCREEN
DISPLAY



CI-001-030



CI-001-040

9.1 | HF UNIT

STEMA HF-U PRO TOUCH

- *For all monopolar & bipolar techniques*
- *with 7" touch screen display*
- *provided to perform the most advanced electrosurgery*
- *ADC / APC System*



CI-001-030

CI-001-040

Ordering no.	Product
CI-001-030	STEMA HF-U PRO TOUCH
CI-001-040	DOUBLE PEDAL FOOTSWITCH | STEMA HF-U PRO TOUCH

Technical data

HF Generator compliant with	IEC 60601-1 and IEC 60601-2-2
CE Classification	IIb
IEC 60601-1 classification and type	I CF
IEC 60601-2-2 output circuit	Floating- protected for the use of a defibrillator (HF dispersion <150 mA)
Frequency	440 kHz
Operation check	Complete self-diagnosis by means of a double microprocessor which performs: Main Self-check: when turned on Standard Self-check: during operation and, if any, operation lock (within 100 milliseconds), with alarm signalling to operators through specific Error Codes, in the event of problems concerning: - general operation or activation errors (General Error Control) - output power (Output Error Control) HF Leakage Control: continuous verification, by means of a specific circuit, of any HF current dispersion to earth and possible automatic power reduction by means of an alarm signal Storage: of the last 32 Error Codes
Power self-adjustment	By means of a microprocessor with two different systems: ADC System: Constant power: self-adjusts the power, controlling voltage and current, based on real-time feedback (7000 checks/sec) between device and patient's tissue. The powers are equipped with Micro and Macro progressive regulation with steps from 0.1 W to 10 W. Monopolar (from 1 W to 10 W), Bipolar (from 0.1 W to 5 W). APC System: Constant voltage: self-adjusts the power, keeping the voltage constant, based on a real-time feedback (7000 checks/sec) between device and patient's tissue. The powers are equipped with regulation with 10 effects (for each one the maximum power delivered in W is indicated).
Operation memorisation	100 programs
Outputs	2 Monopolar and 2 Bipolar
Foot-operated controls	A double pedal control with push button selector for monopolar functions

9.1 | HF UNIT

STEMA HF-U PRO TOUCH

Technical data

Panel	7" touch screen LCD display
Neutral electrode safety circuit NPCC System	Control of the connection of the neutral electrode and of the quality of the contact using double selection/split electrodes with alarm signal and possible lock of delivered power. It can be used in two different ways: Large electrodes for adults, Small electrodes for paediatric patients/newborns. It allows using cables with both European "Ø 6,35mm" and USA "2 pins" connectors.
Power supply	100- 230 V, 50/60 Hz- Automatic switching supply
Power consumption at 230V	Max power 3.6 A = 828Va, Stand-by 0.4 A = 92 VA
Cooling	Convection, without fan
Equipotential bonding	Standard DIN 42801 plug
Software upgrade, calibration	Upgrade via serial port connected to a PC, on-site calibration
Size and weight	38x38x20 (L x D x H) | 10kg
Delivery contains	HF unit, operating manual, cable: mains (1); The suitable electrodes you will find in our catalogue for HF surgery.

RECOMMENDED PRODUCTS | MORE INFORMATION ON PAGES 100-104

UROLOGY

AD-010-003 | HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, 3 meter

AD-010-013 | HF-bipolar resectoscope connecting cable suitable for Valleylab, Lamidey, 4,5 meter

LAPAROSCOPY

EE-010-003 | HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, 3 meter

EK-010-014 | HF-Cable bipolar, Valleylab/flat plug, 3m long

ADAPTER

EK-015-060 | Universal adapter used for monopolar HF cables

EK-015-061 | Universal adapter used for bipolar HF cables, double banana plug Ø 4mm, Valleylab/Conmed

9.1 | HF UNIT

STEMA HF-U PRO TOUCH | MONOPOLAR CURRENTS

Currents for monopolar cutting

Pure Cut	Pure cut without coagulating effect. For open or laparoscopic surgery and for under liquid endoscopy (TURP, TURV)
Blend Cut 1	Blended cut with a medium coagulating effect. For open or laparoscopic surgery and for under liquid endoscopy (TURP, TURV)
Blend Cut 2	Blended cut with a very high coagulating effect. For open or laparoscopic surgery
Pure Cut Pulsed	Pure pulsed cut without coagulating effect. For open or laparoscopic surgery (suitable to reduce surgical smoke)
Blend Cut Pulsed	Blended pulsed cut with medium coagulating effect. For open or laparoscopic surgery (suitable to reduce surgical smoke)
Auto Pure Cut Micro	“Constant voltage” delicate pure cut without coagulating effect. For open or laparoscopic surgery and for under liquid endoscopy (TURP, TURV)
Auto Blend Cut Micro	“Constant voltage” delicate cut blended with a medium coagulating effect. For open or laparoscopic surgery and for under liquid endoscopy (TURP, TURV)
Auto Papillo Pure Cut	“Constant voltage” pure cut, without coagulating effect, for flexible endoscopy. With four modes of delivery: continuous and pulsed (slow, medium, fast)
Auto Polipo Blend Cut	“Constant voltage” cut, blended with a medium coagulating effect, for flexible endoscopy. With four modes of delivery: continuous and pulsed (slow, medium, fast).
Auto Endo Cut	“Constant voltage” cut with alternating phases of cutting and blended cut, for flexible endoscopy. With four modes of delivery: 90% BLEND and 10% CUT, 80% BLEND and 20% CUT, 60% BLEND and 40% CUT, 50% BLEND and 50% CUT.

Currents for monopolar coagulation

Fulg Forced Coag	High voltage, contact free coagulation. For open or laparoscopic surgery, under liquid endoscopy (TURP, TURV) and for flexible endoscopy
Spray Coag	Very high voltage, contact free coagulation. For open or laparoscopic surgery, for under liquid endoscopy (TURP, TURV) and for flexible endoscopy
Pulsed Spray Coag	Identical to the Spray coag current, but pulsed and more delicate
Pinpoint Contact Coag	Medium voltage, contact coagulation. For open or laparoscopic surgery, for under liquid endoscopy (TURP, TURV) and for flexible endoscopy
Soft Micro Coag	Delicate, low voltage coagulation. For open or laparoscopic surgery

9.1 | HF UNIT

STEMA HF-U PRO TOUCH | BIPOLAR CURRENTS

Currents for bipolar cutting

Standard Bicut	Cut for open or laparoscopic surgery
Blend Bicut	Blended cut with a very high coagulating effect (Coagulation = 95%) for open or laparoscopic surgery
Saline Uro-Gyn Cut	Cut in saline (TURPis, TURVis) with two modes of delivery: continuous and pulsed. For urology and gynaecology. The continuous delivery is suitable to perform the vaporization.
Saline Arthro Cut	Cut in saline with two modes of delivery: continuous and pulsed. For arthroscopy. The continuous delivery is suitable for vaporization

Currents for bipolar coagulation

Soft Micro Bicoag	Very precise and delicate coagulation. For open or laparoscopic surgery, for endoscopy in saline (TURPis, TURVis) and for flexible endoscopy.
Forced Macro Bicoag	Fast coagulation. For open or laparoscopic surgery
Auto Soft Micro Bicoag	Identical to the Soft Micro Bicoag, but with Impedance sensing automatic activation/deactivation. It is not suitable for the endoscopy in saline. Activation with delay adjustable from 0 to 5 seconds and deactivation with bitonal, grave, acoustic signal
Sealing	Current to coagulate/seal vessels up to 7 mm in open and laparoscopic surgery. Activation with pedal and automatic Impedance sensing deactivation with two-tone, acute, acoustic signal
Auto Sealing	Identical to Sealing, but with Impedance sensing automatic activation/deactivation. It is not suitable for the endoscopy in saline. Activation with delay adjustable from 0 to 5 seconds and deactivation with two-tone, grave, acoustic signal

9.1 | HF UNIT

STEMA HF-U PRO TOUCH | OUTPUT POWERS

Monopolar Cutting

	Pure Cut	Blend Cut 1	Blend Cut 2	Pure Cut Pulsed	Blend Cut Pulsed	Auto Pure Cut Micro	Auto Blend Cut Micro	Auto Papillo Pure Cut	Auto Polipo Blend Cut	Auto Endocut
Delivered Power	400 W	300 W	250 W	200 W	150 W	300 W	300 W	300 W	300 W	300 W
Nominal loads	400 Ω	400 Ω	400 Ω	400 Ω	400 Ω	300 Ω	300 Ω	300 Ω	300 Ω	300 Ω
Peak/No-Load Peak Voltages (Vpp)	2550	3390	3330	2640	3330	1137	1500	1140	1490	1670
Crest factors	1,46	1,94	2,29	2	3,2	1,5	1,98	1,5	1,98	2,2
Modulation	no	17 kHz	17 kHz	3 Hz	50 Hz	no	17 kHz	no	17 kHz	-
Duty Cycle	100%	95%	65%	50%	50%	100%	90%	100%	95%	-
	ADC System | Constant Power					APC System | Constant Voltage				

Monopolar Coagulation

	Fulg Forced Coag	Spray Coag	Pin Point Contact Coag	Pulsed Spray Coag	Soft Micro Coag
Delivered Power	150 W	200 W	300 W	100 W	280 W
Nominal loads	300 Ω	700 Ω	400 Ω	700 Ω	300 Ω
Peak/No-Load Peak Voltages (Vpp)	4500	7750	3700	7850	3300
Crest factors	6,45	7,75	2,2	11,54	2,16
Modulation	60 kHz	30 kHz	17 Hz	3 Hz	17 kHz
Duty Cycle	18%	7%	85%	50%	75%
	ADC System | Constant Power				

9.1 | HF UNIT

STEMA HF-U PRO TOUCH | OUTPUT POWERS

Bipolar Cutting

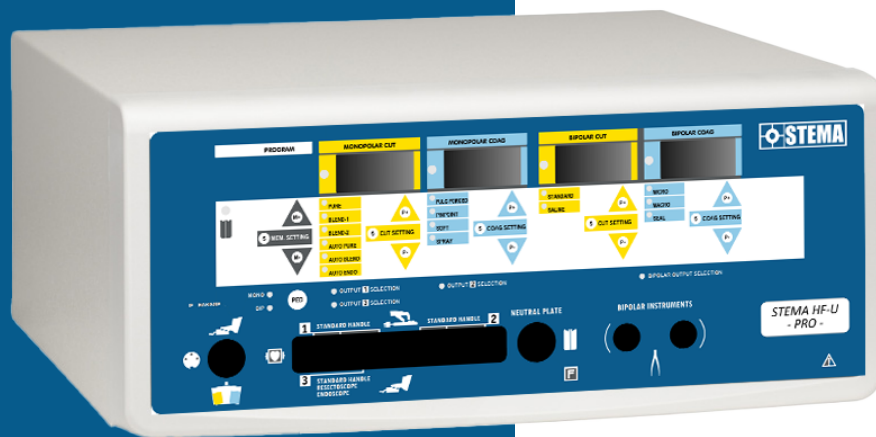
	Standard Bicut	Blend Bicut	Saline Uro-Gyn Cut	Saline Arthro Cut
Delivered Power	200 W	160 W	300 W	230 W
Nominal loads	300 Ω	200 Ω	350 Ω	350 Ω
Peak/No-Load Peak Voltages (Vpp)	1070	740	1070	1070
Crest factors	1,5	1,57	1,5	1,5
Modulation	no	17 kHz	no	no
Duty Cycle	100%	95%	100%	50%
	ADC System | Constant Power			

Bipolar Coagulation

	Soft Micro Bicoag	Auto Soft Micro Coag	Sealing	Auto Sealing	Forced Macro Bicoag
Delivered Power	140 W	140 W	320 W	320 W	200 W
Nominal loads	100 Ω	100 Ω	50 Ω	50 Ω	100 Ω
Peak/No-Load Peak Voltages (Vpp)	460	4600	780	780	550
Crest factors	1,56	1,56	2,47	2,47	1,6
Modulation	0	0	0	0	0
Duty Cycle	100%	100%	100%	100%	100%
	APC System | Constant Voltage				ADC System Constant Power

STEMA HF-U PRO

ELECTROSURGICAL UNIT FOR
MONOPOLAR AND BIPOLAR
SURGERY



CI-001-031



CI-001-041



9.1 | HF UNIT

STEMA HF-U PRO

- 100 Memory Programs
- Neutral Electrode Control "NPCC System"
- HF Leakage control
- Twin Foot Switch
- 2 Monopolar Outputs



CI-001-031



CI-001-041

Ordering no.	Product
CI-001-031	STEMA HF-U PRO
CI-001-041	DOUBLE PEDAL FOOTSWITCH | STEMA HF-U PRO

Technical data

HF Generator compliant with	IEC 60601-1 and IEC 60601-2-2
CE Classification	IIb
IEC 60601-1 classification and type	I CF
IEC 60601-2-2 output circuit	Floating- protected for the use of a defibrillator (HF dispersion <150 mA)
Frequency	440 kHz
Operation check	Complete self-diagnosis by means of a double microprocessor which performs: Main Self-check: when turned on Standard Self-check: during operation and, if any, operation lock (within 100 milliseconds), with alarm signalling to operators through specific Error Codes, in the event of problems concerning: - general operation or activation errors (General Error Control) - output power (Output Error Control) HF Leakage Control: continuous verification, by means of a specific circuit, of any HF current dispersion to earth and possible automatic power reduction by means of an alarm signal Storage of the last 32 Error Codes
Power self-adjustment	By means of a microprocessor with two different systems: ADC System: Constant power: self-adjusts the power, controlling voltage and current, based on real-time feedback (7000 checks/sec) between device and patient's tissue. APC System: Constant voltage: self-adjusts the power, keeping the voltage constant, based on a real-time feedback (7000 checks/sec) between device and patient's tissue.
Operation memorisation	100 programs
Outputs	2 Monopolar and 1 Bipolar
Foot-operated controls	A double pedal control with push button selector for monopolar and bipolar functions. The pedal is compliant with IEC-60601-2-2, waterproof (IP67), electric with 12VCD low voltage power supply (CI-001-041)

9.1 | HF UNIT

STEMA HF-U PRO

Technical data

Micro/macro power adjustment	Monopolar: 0-30W = 1W, 30-100W = 2W, 100-200W = 5W, over 200W = 10W Binopolar: 0-10W = 0.5W, 10-30W = 1W, 30-100W = 2W, over 100W = 5W
Panel	Smooth, with digital displays and keys
Neutral electrode safety circuit NPCC System	Control of the connection of the neutral electrode and of the quality of the contact using double selection/split electrodes with alarm signal and possible lock of delivered power.
Power supply	230 V or 115 V, 50/60 Hz
Power consumption at 230V	Max power 3.6 A = 828 VA, Stand-by 0.4 A = 92 VA
Cooling	Convection, without fan
Equipotential bonding	Standard DIN 42801 plug
Size and weight	38x35x16 (L x D x H) - 15kg
Delivery contains	HF unit, operating manual, cable: mains (1); The suitable electrodes you will find in our catalogue for HF surgery.

RECOMMENDED PRODUCTS | MORE INFORMATION ON PAGES 100-104

UROLOGY

AD-010-003 | HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, 3 meter

AD-010-013 | HF-bipolar resectoscope connecting cable suitable for Valleylab, Lamidey, 4,5 meter

LAPAROSCOPY

EE-010-003 | HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, 3 meter

EK-010-014 | HF-Cable bipolar, Valleylab/flat plug, 3m long

ADAPTER

EK-015-060 | Universal adapter used for monopolar HF cables

EK-015-061 | Universal adapter used for bipolar HF cables, double banana plug Ø 4mm, Valleylab/Conmed

9.1 | HF UNIT

STEMA HF-U PRO | MONOPOLAR & BIPOLAR CURRENTS

Monopolar currents	
Pure	Non-modulated sinusoidal current for pure cut without coagulating effect
Blend 1	Sinusoidal modulated current for coagulating cut
Blend 2	Modulated current for cut with strong coagulating effect, Spray type, for surgery and laparoscopy
Auto Pure	Non-modulated sinusoidal current for cut without coagulating effect
Auto Blend	Sinusoidal modulated current for coagulating cut
Auto Endo	Current with alternating cut and coagulation phases for flexible endoscopy
Fulg Forced	Modulated high voltage current with strong coagulating superficial and deep effect
Pinpoint	Modulated medium voltage current with medium coagulating superficial and deep effect
Soft	Modulated low voltage current with delicate coagulating effect without superficial carbonisation
Spray	Modulated very high voltage current for very strong superficial coagulation with a low tissue penetration, even without any contact of the active electrode
Bipolar currents	
Standard	Pulsed current for cut
Saline	Pulsed current for endoscopic cut in saline solution
Micro	Pulsed current for coagulation Soft / Micro Precise type and for coagulation in saline solution
Macro	Pulsed current for coagulation Standard / Forced type in laparoscopy
Seal	Pulsed current with automatic stop for sealing of big vessels up to 7mm diameter



9.1 | HF UNIT

STEMA HF-U PRO | OUTPUT POWERS

Monopolar Cutting

	Pure	Blend 1	Blend 2	Auto Pure	Auto Blend	Auto Endo
Delivered Power	350 W	300 W	140 W	350 W	300 W	220 W
Nominal loads	350 Ω	350 Ω	600 Ω	350 Ω	350 Ω	350 Ω
Vpp	3450	3600	7600	1350	1930	1710
Crest factor	1,6	2,3	8,1	1,6	2,3	2,2
Modulation	no	29 kHz	19 kHz	no	29 kHz	50% Pure
Duty Cycle	no	65%	9%	no	65%	50% Blend I
Current self-adjustment	ADC System | Constant Power			APC System | Constant Voltage		

Monopolar Coagulation

	Fulg Forced	PinPoint	Soft	Spray
Delivered Power	150 W	250 W	280 W	140 W
Nominal loads	350 Ω	250 Ω	250 Ω	600 Ω
Vpp	4700	3460	3440	7600
Crest factor	4,5	2,6	2,5	8,1
Modulation	78 kHz	29 kHz	29 kHz	19 kHz
Duty Cycle	3,5%	50%	56%	9%
Current self-adjustment	ADC System | Constant Power			

9.1 | HF UNIT

STEMA HF-U PRO | OUTPUT POWERS

Bipolar Cutting

	Standard	Saline
Max Output Power	180 W	320 W
Rated load	350 Ω	50 Ω
Vpp	1200	1200
Crest factor	1,5	1,5
Modulation	no	no
Duty Cycle	no	no
Current self-adjustment	ADC System | Constant Power	ADC System | Constant Power

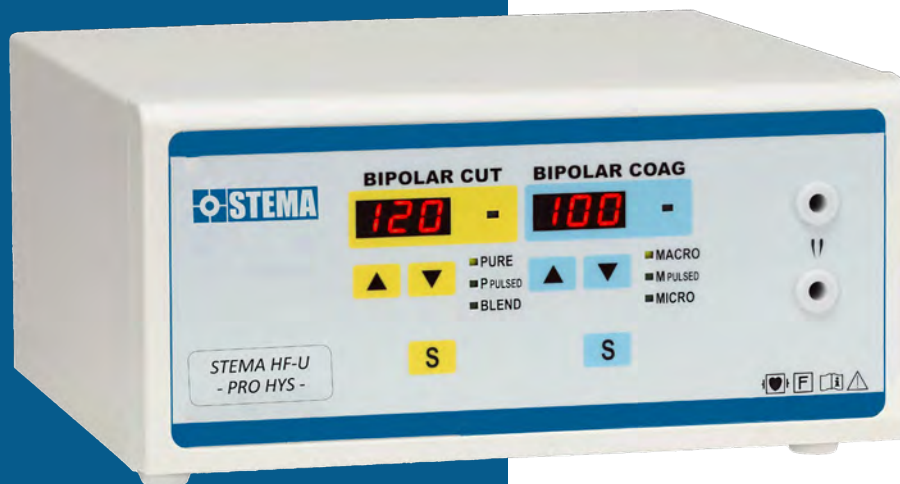
Bipolar Coagulation

	Micro	Macro	Seal
Max Output Power	130 W	130 W	130 W (200 W)
Rated load	100 Ω	200 Ω	100 Ω
Vpp	420	1050	420
Crest factor	1,7	1,7	1,7
Modulation	no	no	no
Duty Cycle	no	no	no
Current self-adjustment	APC System | Constant Voltage	ADC System | Constant Power	APC System | Constant Voltage



STEMA HF-U PRO HYS

ELECTROSURGICAL UNIT FOR
BIPOLEAR SURGERY WITH DIRECT,
PULSED AND TIMED CURRENTS



CI-001-032



CI-001-042

9.1 | HF UNIT

STEMA HF-U PRO HYS

- *For bipolar use*
- *Double foot-switch*
- *2 separate controls*
- *Specific display*



CI-001-032

CI-001-042

Ordering no.	Product
CI-001-032	STEMA HF-U PRO-HYS
CI-001-042	DOUBLE PEDAL FOOTSWITCH | STEMA HF-U PRO-HYS

Technical data

HF Generator compliant with	Meets IEC 60601-1 and IEC 60601-2-2
CE Classification	IIb
IEC 60601-1 classification and type	I CF
IEC 60601-2-2 output circuit	Floating - protected for the use of a defibrillator (HF dispersion >150 mA)
Frequency	450 kHz
Operation check	Complete self-diagnosis using microprocessor, and possible operation lock with alarm by means of specific Error Codes in the Event of problems relating to: - general operation or activation errors (General Error Control) - output power (Output Error Control)
Power self-adjustment	By microprocessor with: ADC System: Constant power: self-adjusts the power, controlling voltage and current, based on real-time feedback (7000 checks/sec) between device and patient's tissue.
Outputs	1 Bipolar only
Foot-operated controls	Double pedal control
Micro/Macro power adjustment	0-30 W = 1 W, over 30 W = 2W
Panel	Smooth, with digital displays and keys
Power supply	230 or 115 V, 50/60 Hz
Power consumption at 230V	370 VA
Cooling	Convection, without fan
Size and weight	25x24x12cm (L x D x H) - 4,5 kg

Delivery contains

HF unit, operating manual, cable: mains (1); The suitable electrodes you will find in our catalogue for HF surgery.

9.1 | HF UNIT

STEMA HF-U PRO HYS | BIPOLAR CURRENTS

Bipolar Currents	
Pure	Cut for use in Open Surgery or Laparoscopy
P Pulsed	Pulsed Fast Cut, suitable to achieve detailed results, minimum thermal effect and reduction of surgical smoke
Blend	Coagulating Cut, with greater thermal effect
Macro	Coagulation, to be used with forceps, scissors, double-needle electrodes and laparoscopic instruments
M Pulsed	Pulsed Coagulation. Similar to Macro, but more delicate and useful to reduce surgical smoke
Micro	Micro-Coagulation, to be used with forceps, scissors, double-needle electrodes and laparoscopic instruments

9.1 | HF UNIT

STEMA HF-U PRO HYS | OUTPUT POWERS

	Bipolar Cutting			Bipolar Coagulation		
	Pure	P Pulsed	Blend	Macro	M Pulsed	Micro
Delivered Power	120 W	60 W	100 W	100 W	50 W	100 W
Nominal loads	400 Ω	400 Ω	400 Ω	100 Ω	100 Ω	100 Ω
Vpp	975	990	975	640	640	600
Crest factor	2,75	3,98	2,8	3,6	5	3,4
Modulation	0	50%	0	0	0	0
Duty Cycle	100%	100%	80%	80%	50%	50%

9.1 | ACCESSORIES

FOOTSWITCHES | STEMA HF-U SERIES



Ordering no.

CI-001-040 Double Pedal Footswitch, 5m cable
used for STEMA HF-U PRO TOUCH



CI-001-043 Double Pedal Footswitch, 5m cable
used for STEMA HF-U PRO TOUCH, Only BIPOLAR



Ordering no.

CI-001-041 Double foot switch, 5m cable
used for STEMA HF-U PRO



Ordering no.

CI-001-042 Double foot switch, 5m cable
used for STEMA HF-U PRO-HYS

9.1 | ACCESSORIES

ADAPTER | STEMA HF-U SERIES



Ordering no.

EK-015-060 Universal adapter used for monopolar HF cables



Ordering no.

EK-015-061 Universal adapter used for bipolar HF cables, double banana plug Ø 4mm, Valleylab/Conmed



Ordering no.

EK-015-062 Universal adapter used for bipolar HF-cables, Storz/Erbe



Ordering no.

EK-015-063 Universal adapter used for bipolar HF-cables, Martin/Berchtold

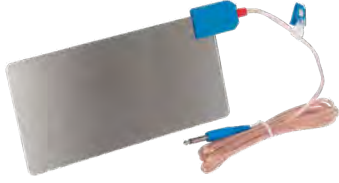


Ordering no.

EK-015-064 Universal adapter used for bipolar HF-cables, Olympus

9.1 | ACCESSORIES

NEUTRAL ELECTRODES | STEMA HF-U SERIES



Ordering no.

EK-015-054 Neutral electrode, 25x12,5cm stainless steel, incl. cable, used for STEMA, Martin, Berchtold, Erbe Units, 2,5m



Ordering no.

EK-015-055 Single use Neutral electrode TWIN SAFE, for adults and children, without connecting cable, **176x122mm**, 600 pieces

EK-015-059 Single use Neutral electrode TWIN SAFE, for adults and children, with connecting cable for STEMA units, **176x122mm**, 96 pieces



EK-015-056 Single use Neutral electrode TWIN SAFE, for children and babies, without connecting cable, **181x76mm**, 600 pieces

EK-015-072 Single use Neutral electrode TWIN SAFE, for children and babies, with connecting cable for STEMA units, **181x76mm**, 96 pieces

EK-015-070 Cable used for neutral electrode **EK-015-055/EK-015-056**, for VALLEYLAB with pin units, 5 meter

EK-015-071 Cable used for neutral electrode **EK-015-055/EK-015-056**, for VALLEYLAB, BOWA units, 5 meter

EK-015-058 Cable used for neutral electrode **EK-015-055/EK-015-056**, for STEMA units, 3 meter

EK-015-057 Cable used for neutral electrode **EK-015-055/EK-015-056**, for STEMA units, 3 meter

9.1 | ACCESSORIES

MONOPOLAR AND BIPOLAR CABLES | STEMA HF-U SERIES

CONNECTION UNIT SIDE



Ordering no.



AD-010-003 HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, 3 meter

AD-010-008 HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, 3 meter



EE-010-003 HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, 3 meter

EE-010-003 HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, 5 meter

CONNECTION UNIT SIDE



Ordering no.



AD-010-013 HF-bipolar resectoscope connecting cable suitable for Valleylab, Lamidey, 4,5 meter

AD-010-015 HF-bipolar resectoscope connecting cable suitable for Erbe Vio 3, 4,5m



EK-010-014 HF-Cable bipolar, Valleylab/flat plug, 3m long

EK-010-015 HF-Cable bipolar, Valleylab/flat plug, 5m long



EK-010-064 HF-Cable bipolar, Valleylab/flat plug, square, 3m long

EK-010-065 HF-Cable bipolar, Valleylab/flat plug, square, 5m long

10. SHAVER

**10.1 | STEMA SHAVER BARRACUDA
SHAVER SYSTEM
CONTROL UNIT
ACCESSORIES**

**10.2 | STEMA SHAVER
SHAVER SYSTEM
CONTROL UNIT
ACCESSORIES**

STEMA SHAVER BARRACUDA



Ordering no.	Product
BS-001-032	STEMA SHAVER BARRACUDA | CONTROL UNIT
BS-001-031	STEMA SHAVER BARRACUDA SET (CONSISTING OF):
	BS-001-032 | CONTROL UNIT
	BS-001-033 | HANDPIECE
	BS-001-034 | FOOTSWITCH

BENEFITS

- Unique handpiece head design - easy, efficient and reliable cleaning and disinfection process
- Sophisticated oscillation modes to meet requirements of the most demanding operators
- Smooth and stable work within the entire range of rotational speed
- Single-use and reusable shaver blades with uniquely designed hub eliminating problematic articulation effect
- Large and clear user interface - facilitates instant reading of essential parameters
- On-screen display - presentation of significant parameters on the medical monitor
- Ergonomic handpiece with buttons for comfortable holding and operating

FEATURES

- Wide range of rotational speed
- Window calibration feature
- Available direction modes: forward, oscillation, reverse
- Nine oscillation modes
- Automatic handpiece detection
- Controlled directly via buttons on the handpiece or via footswitch
- Fully autoclavable, light and ergonomic handpiece
- Dedicated shaver blades



10.1 | STEMA SHAVER BARRACUDA CONTROL UNIT



BS-001-032

Technical data | Control unit

Power supply	100-240 VAC; 50/60 Hz
Power consumption	65 VA
External dimension	D: 250 mm x W: 330 mm x H: 96 mm
Weight	4,8 kg
Ambient temperature	During operation: + 10 °C to +40 °C During storage and transport: -20°C to +45°C
Max. relative humidity	During operation: 70 % During storage and transport: 70%
Class of protection	Class 1
CE Standard	EN 60601-1:2006+Al:2013; EN 60601-1-2:2015;



The suitable shaverblades you will find in our catalogue for Arthroscopy.

Delivery contains (Control unit | BS-001-032)

Control unit, operating manual, cable: mains (1)

Delivery contains (Shaver set | BS-001-031)

Control unit, handpiece, footswitch, operating manual, cable: mains (1)



10.1 | STEMA SHAVER BARRACUDA HANDPIECE & FOOTSWITCH



Technical data | Handpiece

Length	164 mm
Weight	325 g
Shaver blade chuck	Automatic / Barracuda type
Speed range	FWD, REV: 500- 10 000 RPM (+/- 10%) OSC: 500- 3500 RPM (+/- 10%)
Oscillation modes	9 different modes
Cable length	3,2 m
Sterilization method	Steam sterilization 134°C
Ambient temperature	During Operation: + 10°C to +40°C During storage and transport: -20°C to +45°C
Max. relative humidity	During operation: 100% During storage and transport: 90%
Class of protection	Applied part- BF type
Buttons	ON/OFF, window calibration, direction change (FWD, OSC, REV), change of oscilation modes

Delivery contains (BS-001-033)

Handpiece (1), operating manual, cable: mains (1)



Technical data | Footswitch

Dimensions	D: 215 mm x W: 280 mm x H: 28 mm
Weight	2,45 kg
Cable length	3,2 m
Casing safety standard Functions	IP X8
Ambient temperature	Speed Up, Speed Down, START/STOP, Window Size, Direction (FWD, OSC, REV) During operation: + 10 °C to +40 °C
Max. relative humidity	During storage and transport: -20°C to +45°C During operation: 100% During storage and transport: 90%

Delivery contains (BS-001-034)

Footswitch (1), operating manual, cable: mains (1)



10.2 | STEMA SHAVER CONTROL UNIT



BS-001-001

Ordering no.	Product
BS-001-002	STEMA SHAVER | CONTROL UNIT
BS-001-001	STEMA SHAVER SET (CONSISTING OF):
	BS-001-002 | CONTROL UNIT
	BS-001-003 | HANDPIECE
	BS-001-004 | FOOTSWITCH

Technical data

Connections	Handpiece and footswitch
Speed range.....	800 to 8.000 rpm ($\pm 10\%$)
Power consumption.....	65 VA
Frequency voltage	50/60 Hz
Dimensions	330 x 96 x 306mm (w x h x d)
Weight	5.1 kg
Ambient temperature	During operations: +10°C to +40°C / During storage and transport: -20°C to +45°C
Relative humidity	During operations: max. 70% / During storage and transport: max. 70%
Protection class.....	1- Typ B / 1- Type B
Certificates	EN60601-1, EN60601-1-2 / EN60601-1, EN60601-1-2



The suitable shaverblades you will find in our catalogue for Arthroscopy.

Delivery contains (Control unit | BS-001-002)

Control unit, operating manual, cable: mains (1)

Delivery contains (Shaver set | BS-001-001)

Control unit, handpiece, footswitch, operating manual, cable: mains (1)



10.2 | STEMA SHAVER HANDPIECE



BS-001-003

Ordering no.	Product
BS-001-003	STEMA SHAVER HANDPIECE
BS 001-020	SEE BS-001-003 BUT WITH AUTOMATIC SHAVE BLADE CHUCK

Technical data	
Chuck	Manual locking
Speed range	800 to 8.000 rpm (± 10%)
Oscillation cycle	Light: 0.5 sec., Medium: 0.3 sec., Aggressive: 0.2 sec.
Length	185mm
Weight.....	400 g
Cable	3m length
Ambient temperature	During operations: +10°C to +40°C / During storage and transport: -20°C to +45°C
Relative humidity	During operations: 100% / During storage and transport: max. 90%
Sterilization	Steam sterilization 134°C

Delivery contains (BS-001-003)

Handpiece (1), operating manual, cable: mains (1)

Delivery contains (BS-001-020)

Handpiece with automatic shave blade chuck (1), operating manual, cable: mains (1)



10.2 | STEMA SHAVER
FOOTSWITCH



BS-001-004

Ordering no.	Product
BS-001-004	STEMA SHAVER FOOTSWITCH
BS 001-021	SEE BS-001-004 BUT WITH WIRELESS CONNECTION

Technical data	
Functions	Clockwise, counter-clockwise, oscillation, speed level
Dimensions	280 x 28 x 215mm (w x h x d)
Weight	2.45 kg
Cable	3m length
Ambient temperature	During operations: +10°C to +40°C / During storage and transport: -20°C to +45°C
Relative humidity	During operations: 100% / During storage and transport: max. 90%
Safety standard	IP X8

- Delivery contains (BS-001-004)**
Footswitch, operating manual, cable: mains (1)
- Delivery contains (BS-001-021)**
Footswitch, operating manual

10.2 | STEMA SHAVER AIR DRIVEN DRILL



ZA-005-000

Ordering no.

ZA-005-000	AIR DRIVEN DRILL ONLY, WITHOUT TUBE | 0-950 RPM, OPERATING PRESSURE MIN. 6 BAR
ZA-005-047	TUBE FOR AIR DRIVEN DRILL ZA-005-000, 3M
ZA-005-048	TUBE FOR AIR DRIVEN DRILL ZA-005-000, 5M
ZA-005-005	THREE JAW-CHUCK UP TO Ø 7.0MM, FOR ROUND AND TRIANGULAR SHANKS WITH CHUCK KEY
ZA-005-006	QUICK-ACTION-CHUCK, FOR DRILL WIRES FROM Ø 0.8MM UP TO Ø 3.0 MM
ZA-005-007	ADAPTOR FOR AO ATTACHMENTS
ZA-005-008	ADAPTOR FOR DIN ATTACHMENTS
ZA-005-009	ADAPTOR FOR OSCILATING SAW, FOR STANDARD ATTACHMENT SAW BLADES 3M
ZA-005-010	ADAPTOR FOR ACETABULUM AND MEDULLARY REAMERS, WITH AO COUPLING 100 RPM

10.2 | DRIVEN DRILL

BATTERY DRIVEN DRILL



ZA-005-001

Ordering no.	
ZA-005-001	BATTERY DRIVEN DRILL ONLY, WITHOUT TUBE
ZA-005-002	BATTERY PACK FOR DRILL ZA-005-001
ZA-005-003	CHARGER, 220 V, FOR 1 BATTERY
ZA-005-004	CHARGER, 220 V, FOR 2 BATTERIES
ZA-005-005	THREE JAW-CHUCK UP TO Ø 7.0MM, FOR ROUND AND TRIANGULAR SHANKS WITH CHUCK KEY
ZA-005-006	QUICK-ACTION-CHUCK, FOR DRILL WIRES FROM Ø 0.8 MM UP TO Ø 3.0 MM
ZA-005-007	ADAPTOR FOR AO ATTACHMENTS
ZA-005-008	ADAPTOR FOR DIN ATTACHMENTS
ZA-005-009	ADAPTOR FOR OSCILATING SAW, FOR STANDARD ATTACHMENT SAW BLADES 3M
ZA-005-010	ADAPTOR FOR ACETABULUM AND MEDULLARY REAMERS, WITH AO COUPLING 100 RPM

11. MONITORS

11.1 | MEDICAL FULL HD MONITORS

FSN 24" FULL HD MEDICAL MONITOR

FSN 27" FULL HD MEDICAL MONITOR

SONY 21.5" FULL HD MEDICAL MONITOR

SONY 27" FULL HD MEDICAL MONITOR

11.2 | MEDICAL ULTRA HD MONITORS

ADLINK 27" ULTRA HD MEDICAL MONITOR

ADLINK 32" ULTRA HD MEDICAL MONITOR

ADLINK 32" PREMIUM ULTRA HD MEDICAL MONITOR

11.2 | MEDICAL 4K ULTRA HD MONITORS

FSN 27" 4K ULTRA-HD MEDICAL MONITOR

FSN 32" 4K ULTRA HD MEDICAL MONITOR

FSN 55" 4K ULTRA HD MEDICAL MONITOR

SONY 31" 4K ULTRA-HD MEDICAL MONITOR

SONY 32" 4K ULTRA HD MEDICAL MONITOR

SONY 55" 4K ULTRA HD MEDICAL MONITOR

EIZO 43" 4K ULTRA HD MEDICAL MONITOR

11.1 MEDICAL FULL HD MONITORS

FSN 24" FULL HD MEDICAL MONITOR

- *Chrystal Clear High Definition images*
- *User friendly*
- *Ergonomic Design*
- *Narrow bezel*



CF-003-018

Ordering no.	Product
CF-003-018	FSN FS-P2404D 24" FULL HD MEDICAL MONITOR
CF-010-000	STAND BASE FOR MONITOR CF-003-018

Technical data	
Size	24" TFT LCD (LED)
Picture size	477 x 268mm, 547mm (w x h, diagonal)
Resolution	1920 x 1200 pixels
Aspect	16:10
Number of colours	Approx. 1.07 billion
Contrast ratio	1.500:1 typical
Active area	518.4(h)mm x 324.0(v)mm
Viewing angle	R/L 178°, U/D 178°
Inputs	1 x DVI-D 1, 1 x DVI-D 2, 1 x SD/HD/3G-SDI (BNC), 1 x VGA (D-sub), 1 x C-Video (BNC), 1 x S-Video (Y/C - 2 x BNC), 1 x Component (RGBS, YPbPr - 5 x BNC)
Outputs	1 x DVI-D, 1 x SD/HD/3G-SDI
Power supply	AC/DC adaptor (AC 100 V ~ 240 V, DC 12 V 5 A)
Power consumption	Maximum 55 W
Mounting	VESA MIS-D 100 (100 x 100mm)
Standard	IEC 60601-1, IEC 60601-1-2
Dimensions	575.4 x 392 x 82mm (w x h x d), without stand base
Weight	7.4 kg

Delivery contains

Monitor, AC/DC adaptor, operating manual, cable: mains (1), BNC (1), DVI-D (1)- **Delivery without stand base**

11.1 MEDICAL FULL HD MONITORS

FSN 27" FULL HD MEDICAL LED MONITOR

- *Designed for the integrated operating room*
- *800 nit brightness*
- *Edge-to-edge front glass*
- *Protective corner bumpers*
- *Ideal for boom or spring-arm mounting*



CF-003-032

Ordering no.	Product
CF-003-032	FSN FS-L2702D | 27" HD MEDICAL GRADE MONITOR

Technical data

Panel	27 inch TFT LCD (LED)
Resolution	1920 x 1080 pixel
Aspect ratio	16:9
Active Area	597.89 (H)mm x 336.31 (V)mm
Pixel Pitch (mm)	0.3114 x 0.3114
Response Time	14 ms (gray to gray)
Number of colors	1.07 Billion
Brightness (typical)	800 cd/m ²
Surface treatment	Anti-glare
Viewing angle	R/L 178°, U/D 178°
Inputs	2 x DVI (single link), 1 x VGA, 1 x Component, 1 x SDI (3G)
Outputs	1 x DVI (single link), 1x SDI (3G)
Power Supply	AC/DC Adaptor (AC 100~240V, DC 24V/6.6A)
Power consumption	110W
IP rating	IP33- overall, IP44- front side only
Dimensions	671 x 423 x 74.2 mm (w x h x d)
Weight	8.37 kg (monitor with cover)
Certifications	ANSI/AAMI ES60601-1(UL60601-1), CAN/CSA C22.2 No. 60601-1, FCC Class B, EN60601-1, EN60601-1-2, CE, MDD(93/42/EEC) Class I Medical Device

Delivery contains

Monitor, user manual, AC-DC adapter, AC power cord, DVI-D cable, BNC cable, Screw BH M4 x 14

11.1 MEDICAL FULL HD MONITORS

SONY 21.5" FULL HD MEDICAL MONITOR

- *Compact Design*
- *Menu screen with eight selectable languages*
- *Wide range of Standard Input Interfaces*
- *External parallel remote control*



CF-010-001



CF-003-008

Ordering no.	Product
CF-003-008	SONY LMD-2110MD MEDICAL 21.5" FULL HD LCD MONITOR
CF-010-001	STAND BASE FOR MONITOR CF-003-008

Technical data

Size	21.5" a-Si TFT Active Matrix LCD
Picture size	477 x 268mm, 547mm (w x h, diagonal)
Resolution	1920 x 1080 pixels
Aspect	16:9
Display colours	Approx. 16.700.000
Viewing angle (h x v)	170°/160°
Inputs	Y/C (Mini DIN 4 pins), Composite (BNC), RGB/Component (3 x BNC), ext. Sync (BNC), HDMI, option D-Sub 9 pins
Outputs	Y/C (DIN 4 pins), Composite (BNC), RGB/Component (3 x BNC), ext. Sync (BNC)
Power supply	100-240 V AC, 50/60 Hz
Power consumption	Maximum 60 W, 1.0 A - 0.5 A
Mounting	VESA MIS-D 100 (100 x 100mm)
Standard	IEC 60601-1
Dimensions	515 x 355 x 86mm (w x h x d), without stand base
Weight	6.9 kg

Delivery contains

Monitor, plug holder, operating manual, warranty book, CD-Rom, cable: mains (1)- **Delivery without stand base**

11.1 MEDICAL FULL HD MONITORS

SONY 27" FULL HD MEDICAL MONITOR

- *High quality Full HD Pictures with 27"*
- *Control panel with LED Lighting Navigation*
- *Variety of Display Modes*
- *Ergonomic Design*
- *Easy handling*
- *Energy-saving function*



Ordering no.	Product
CF-003-025	SONY LMD-2735MD MEDICAL 27" FULL HD LCD MONITOR
CF-010-009	STAND BASE FOR MONITOR CF-003-025

Technical data

Size	27" a-Si TFT Active Matrix LCD
Picture size	597.9 x 336.3mm, 686mm (w x h, diagonal)
Resolution	1920 x 1080 pixels
Pixel Pitch	0,3114 x 0,3114 mm
Aspect	16:9
Number of colours	Approx. 16.700.000
Contrast ratio	1.000 : 1
Viewing angle	89°/89°
Panel Technology	LCD with IPS
Inputs	Y/C (Mini DIN 4 pins), Composite (BNC), RGB/Component (D-Sub 15 pins), DVI-D, ext. Sync (D-Sub 15 pins), SDI (BNC, HD/SD-SDI), D-Sub 9 pins
Outputs	1 x DVI-D
Power supply	AC/DC adaptor (AC 100 V ~ 240 V, DC 24 V 2.2 A)
Power consumption	Maximum 57 W
Mounting	VESA MIS-D 100 (100 x 100mm)
Standard	IEC 60601-1
Dimensions	660 x 427 x 78mm (w x h x d), without stand base
Weight	8.7 kg

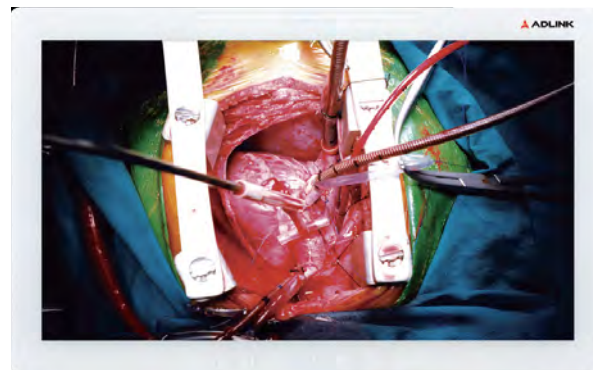
Delivery contains

Monitor, plug holder (2), operating manual, warranty book, CD-Rom, cable: mains (1)- **Delivery without stand base**

11.2 MEDICAL ULTRA HD MONITORS

ADLINK 27" ULTRA HD MEDICAL MONITOR

- *Medically certified product*
- *32" Ultra HD display with optically bonded and anti-glare coated safety glass for unsurpassed visualization capabilities*
- *White glass cover lens without color shift*
- *Multi-signal and multi-format FPGA-based image processing with various wired and wireless control options*
- *7 illuminated soft-touch function keys on the front glass and LED status bar*
- *Edge-to-edge glass surface and patent-pending, screwless design allows for easy and faster cleaning and disinfection procedures*
- *Fully sealed aluminium housing and fanless design with 360 degrees anti-bacterial treatment for patient and operator safety*



CF-003-034

Ordering no.

Product

CF-003-034

ADLINK ASM27UHB | 27" ULTRA-HD MEDICAL MONITOR

Technical data

TFT Panel	27"
Resolution	3840 x 2160
Colours	1.07 Billion
Pixel Pitch	0.155 x 0.155 mm
LCD Contrast Ratio	1000:1
Response Time	16 ms
LCD Luminance	800 cd/m2
Viewing Angle V/H	178°/178°
Colour Space	90% NTSC
Input/Output	2x HDMI 2.0, 1x HDMI 2.0 out, 2x3/6/12G-SDI, 2x 3G-SDI quad operation, 1x3/6/12G-SDI out, 1x calibration, 1x USB 2.0 downlink socket B, 1x 5V/1A, LAN, WLAN, LAN/RS-232
User Interface	7 illuminated touch buttons on the front glass with the following functions: On/Of, Menue/Enter, Up, Down, Exit, Programmable 1, Programmable 2
Picture Mode	PIP, PIP size (10%,20%,30%,50%), Side-by-Side
Colour Space	Native, BT2020, sRGB, Adobe RGB
Colour Temperature	3200..9600
Gamma	1.8; 2.0; 2.2; 2.35; 2.6
Presets	4 + factory
Calibration	Autocalibration
Power	24 DC (external medical-grade PSU)

11.2 MEDICAL ULTRA HD MONITORS

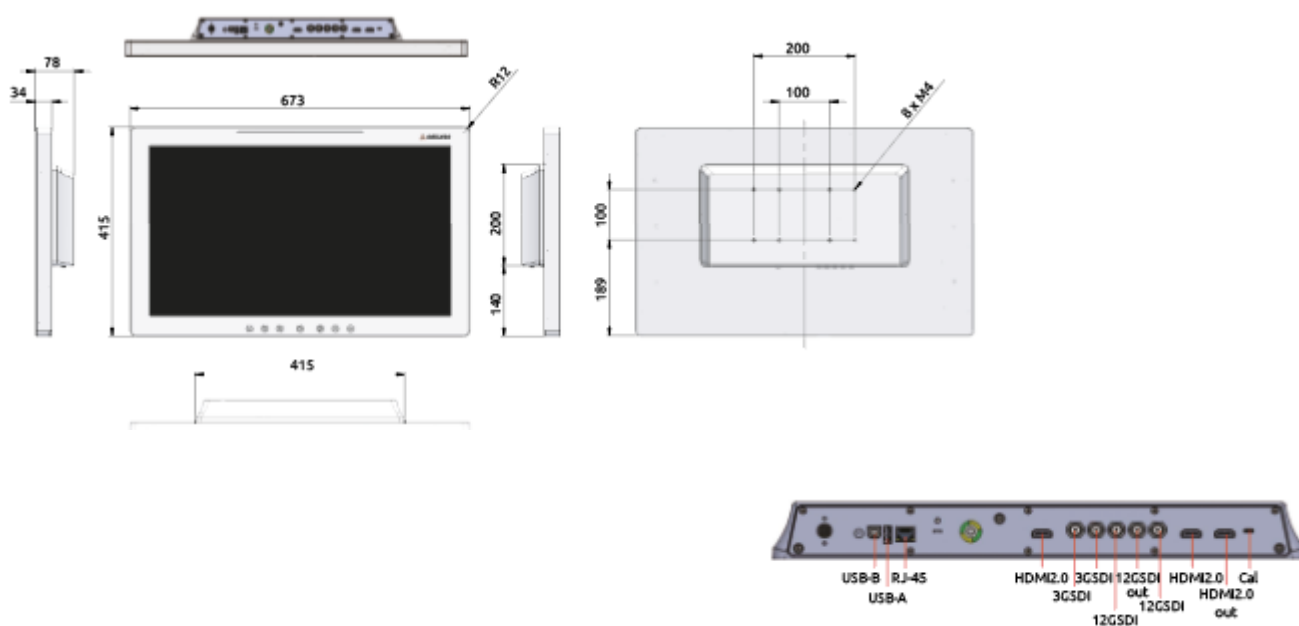
ADLINK 27" ULTRA HD MEDICAL MONITOR

Technical data

Dimensions	673 x 415 x 78 mm
Weight (approx.)	12.4 kg
Housing	Aluminium powder-coated, anti-bacterial Screwless design with IP54 protection
Mounting	VESA 100 x 100 and 200 x 100
Operating	0°C to + 30°C/5% to 90% rel. humidity (non-condensing)
Storage	-10°C to +60°C / 5% to 90% rel. humidity (non-condensing)
Certificates	IEC 60601-1:2005, IEC 60601-1:2005/AMD1:2012 IEC 60601-1-6:2010, IEC 60601-1-6:2010/AMD1:2013 National Differences: CA, US, CH, JP, KR ANSI/AAMI ES60601-1:2005 +C1 (2009) +A1 (2012) +A2 (2010) CAN/CSA C22.2 No. 60601-1:14

Delivery contains

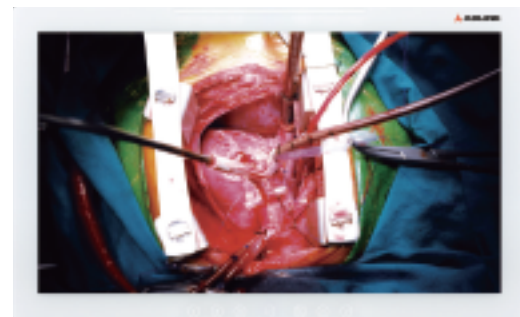
Monitor, AC/DC adapter, plug holder (2), operating manual (CD-Rom), cable: mains (1)- **Delivery without stand base**



11.2 MEDICAL ULTRA HD MONITORS

ADLINK 31,5" ULTRA HD MEDICAL MONITOR

- *Medically certified product*
- *31.5" Ultra HD display with optically bonded and anti-glare coated safety glass for unsurpassed visualization capabilities*
- *White glass cover lens without color shift*
- *Optional PCAP 10-point touchscreen*
- *Multi-signal and multi-format FPGA-based image processing with various wired and wireless control options*
- *7 illuminated soft-touch function keys on the front glass and LED status bar*
- *Edge-to-edge glass surface and patent-pending, screwless design allows for easy and faster cleaning and disinfection procedures*
- *Fully sealed aluminium housing and fanless design with 360 degrees anti-bacterial treatment for patient and operator safety*



CF-003-035

Ordering no.

Product

CF-003-035

ADLINK ASM27U | 31,5" ULTRA-HD MEDICAL MONITOR

Technical data

TFT Panel	31,5"
Resolution	3840 x 2160
Colours	1.07 Billion
Pixel Pitch	0.181 x 0.181 mm
LCD Contrast Ratio	3000:1
Response Time	9.5 ms
LCD Luminance	800 cd/m2
Viewing Angle V/H	178°/178°
Colour Space	90% NTSC
Input/Output	2x HDMI 2.0, 1x HDMI 2.0 out, 2x3/6/12G-SDI, 2x 3G-SDI quad operation, 1x3/6/12G-SDI out, 1x calibration, 1x USB 2.0 downlink socket B, 1x 5V/1A, LAN, WLAN, LAN/RS-232
User Interface	7 illuminated touch buttons on the front glass with the following functions: On/Of, Menue/Enter, Up, Down, Exit, Programmable 1, Programmable 2
Picture Mode	PIP, PIP size (10%,20%,30%,50%), Side-by-Side
Colour Space	Native, BT2020, sRGB, Adobe RGB
Colour Temperature	3200..9600
Gamma	1.8; 2.0; 2.2; 2.35; 2.6
Presets	4 + factory
Calibration	Autocalibration
Power	24 CV (external medical-grade PSU)

11.2 MEDICAL ULTRA HD MONITORS

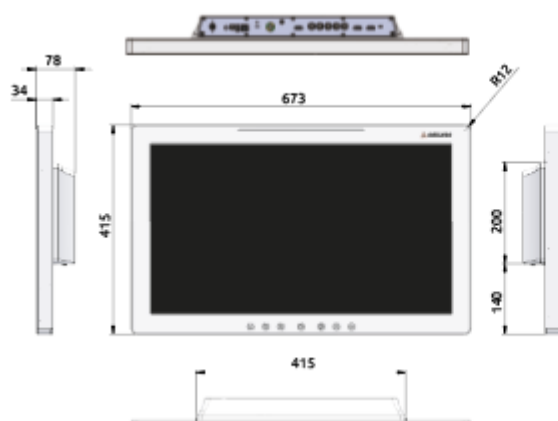
ADLINK 31,5" ULTRA HD MEDICAL MONITOR

Technical data

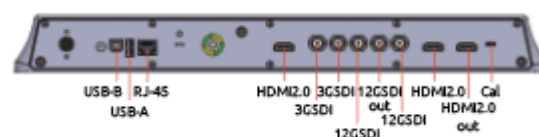
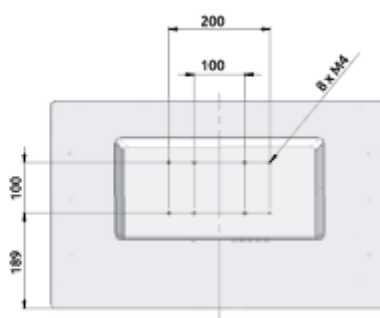
Dimensions	673 x 415 x 78 mm
Weight (approx.)	12.4 kg
Housing	Aluminium powder-coated, anti-bacterial Screwless design with IP54 protection
Mounting	VESA 100 x 100 and 200 x 100
Operating	0°C to + 30°C/5% to 90% rel. humidity (non-condensing)
Storage	-10°C to +60°C / 5% to 90% rel. humidity (non-condensing)
Certificates	IEC 60601-1:2005, IEC 60601-1:2005/AMD1:2012 IEC 60601-1-6:2010, IEC 60601-1-6:2010/AMD1:2013 National Differences: CA, US, CH, JP, KR ANSI/AAMI ES60601-1:2005 +C1 (2009) +A1 (2012) +A2 (2010) CAN/CSA C22.2 No. 60601-1:14

Delivery contains

Monitor, AC/DC adapter, plug holder (2), operating manual (CD-Rom), cable: mains (1)- **Delivery without stand base**



CF-003-035



11.2 MEDICAL ULTRA HD MONITORS

ADLINK 32" ULTRA HD MEDICAL MONITOR

- *Medically certified product*
- *32" Ultra HD display with optically bonded and anti-glare coated safety glass for unsurpassed visualization capabilities*
- *White glass cover lens without color shift*
- *PCAP 10-point touchscreen*
- *Multi-signal and multi-format FPGA-based image processing with various wired and wireless control options*
- *7 illuminated soft-touch function keys on the front glass and LED status bar*
- *Edge-to-edge glass surface and patent-pending, screwless design allows for easy and faster cleaning and disinfection procedures*
- *Fully sealed aluminium housing and fanless design with 360 degrees anti-bacterial treatment for patient and operator safety*



CF-003-036

Ordering no.

Product

CF-003-036

ADLINK ASM27UHB | 32" ULTRA-HD MEDICAL MONITOR

Technical data

TFT Panel	32"
Resolution	3840 x 2160
Colours	1.07 Billion
Pixel Pitch	0.184 x 0.184 mm
LCD Contrast Ratio	1350:1
Response Time	18 ms
LCD Luminance	700 cd/m2
Viewing Angle V/H	178°/178°
Colour Space	105% NTSC
Input/Output	2x HDMI 2.0, 1x HDMI 2.0 out, 2x3/6/12G-SDI, 2x 3G-SDI quad operation, 1x3/6/12G-SDI out, 1x calibration, 1x USB 2.0 downlink socket B, 1x 5V/1A, LAN, WLAN, LAN/RS-232
User Interface	7 illuminated touch buttons on the front glass with the following functions: On/Of, Menue/Enter, Up, Down, Exit, Programmable 1, Programmable 2
Picture Mode	PIP, PIP size (10%,20%,30%,50%), Side-by-Side
Colour Space	Native, BT2020, sRGB, Adobe RGB
Colour Temperature	3200..9600
Gamma	1.8; 2.0; 2.2; 2.35; 2.6
Preset	4 + factory
Calibration	Autocalibration
Power	24 CV (external medical-grade PSU)

11.2 MEDICAL ULTRA HD MONITORS

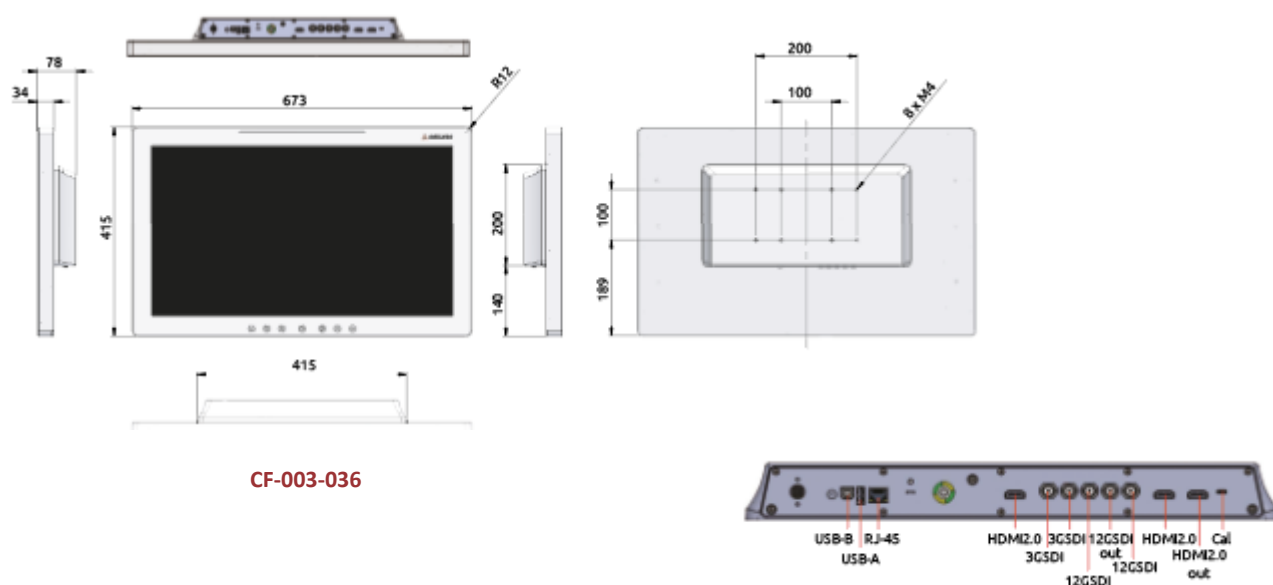
ADLINK 31,5" ULTRA HD MEDICAL MONITOR

Technical data

Dimensions	673 x 415 x 78 mm
Weight (approx.)	12.4 kg
Housing	Aluminium powder-coated, anti-bacterial Screwless design with IP54 protection
Mounting	VESA 100 x 100 and 200 x 100
Operating	0°C to + 30°C/5% to 90% rel. humidity (non-condensing)
Storage	-10°C to +60°C / 5% to 90% rel. humidity (non-condensing)
Certificates	IEC 60601-1:2005, IEC 60601-1:2005/AMD1:2012 IEC 60601-1-6:2010, IEC 60601-1-6:2010/AMD1:2013 National Differences: CA, US, CH, JP, KR ANSI/AAMI ES60601-1:2005 +C1 (2009) +A1 (2012) +A2 (2010) CAN/CSA C22.2 No. 60601-1:14

Delivery contains

Monitor, AC/DC adapter, plug holder (2), operating manual (CD-Rom), cable: mains (1)- **Delivery without stand base**



11.2 MEDICAL ULTRA HD MONITORS

ADLINK MEDICAL MONITORS COMPARISON

TECHNICAL DATA	ADLINK ASM27UHB	ADLINK ASM32UHB	ADLINK ASM32U
TFT Panel	27"	32"	31,5"
Pixel Pitch	0.155 x 0.155 mm	0.184 x 0.184 mm	0.181 x 0.181 mm
LCD Contrast Ratio	1000:1	1350:1	3000:1
Response Time	16 ms	18 ms	9.5 ms
LCD Luminance	800 cd/m ²	700 cd/m ²	400 cd/m ²
Resolution	90% NTSC	105% NTSC	90% NTSC
Colours	3840 x 2160	3840 x 2160	3840 x 2160
Viewing Angle V/H	1.07 Billion	1.07 Billion	1.07 Billion
Colour Space	178°/178°	178°/178°	178°/178°
Input/Output	2x HDMI 2.0 1x HDMI 2.0 out 2x3/6/12G-SDI 2x 3G-SDI quad operation 1x3/6/12G-SDI out 1x calibration 1x USB 2.0 downlink socket B 1x 5V/1A, LAN WLAN LAN/RS-232	2x HDMI 2.0 1x HDMI 2.0 out 2x3/6/12G-SDI 2x 3G-SDI quad operation 1x3/6/12G-SDI out 1x calibration 1x USB 2.0 downlink socket B 1x 5V/1A, LAN WLAN LAN/RS-232	2x HDMI 2.0 1x HDMI 2.0 out 2x3/6/12G-SDI 2x 3G-SDI quad operation 1x3/6/12G-SDI out 1x calibration 1x USB 2.0 downlink socket B 1x 5V/1A, LAN WLAN LAN/RS-232
User Interface	7 illuminated touch buttons on the front glass with the following functions: On/Of Menu/Enter Up Down Exit, Programmable 1 Programmable 2	7 illuminated touch buttons on the front glass with the following functions: On/Of Menu/Enter Up Down Exit, Programmable 1 Programmable 2	7 illuminated touch buttons on the front glass with the following functions: On/Of Menu/Enter Up Down Exit, Programmable 1 Programmable 2
Picture Mode	PIP, PIP size	PIP, PIP size	PIP, PIP size
Colour Space	(10%,20%,30%,50%), Side-by-Side	(10%,20%,30%,50%), Side-by-Side	(10%,20%,30%,50%), Side-by-Side
Colour Temperature	Native, BT2020, sRGB, Adobe RGB	Native, BT2020, sRGB, Adobe RGB	Native, BT2020, sRGB, Adobe RGB
Gamma	3200..9600	3200..9600	3200..9600
Presets	1.8; 2.0; 2.2; 2.35; 2.6	1.8; 2.0; 2.2; 2.35; 2.6	1.8; 2.0; 2.2; 2.35; 2.6
Calibration	4 + factory Autocalibration	4 + factory Autocalibration	4 + factory Autocalibration
Power	24 CV (external medical-grade PSU)	24 CV (external medical-grade PSU)	24 CV (external medical-grade PSU)

11.3 MEDICAL 4K ULTRA HD MONITORS

FSN 27" 4K ULTRA HD MEDICAL MONITOR

- *Outstanding image clarity and color reproduction.*
- *BT.709 and BT.2020 compatible.*
- *Full edge bumper guard.*
- *HDMI, DisplayPort, 3G/12G SDI connections (FM-E2701DG).*



CF-003-033

Ordering no.	Product
CF-003-033	FSN FM-E2701DG | 27" 4K ULTRA-HD MEDICAL MONITOR

Technical data

Panel	27 inch LCD (LED)
Resolution	3840 x 2160 pixels
Active Area	596.16 (H)mm x 335.34 (V)mm
Pixel Pitch (mm)	0.15525 x 0.15525
Pixels arrangement	RGB vertical stripes
Number of colors	1.07 Billion
Surface treatment	Anti-reflection
Viewing angle	R/L 178°, U/D 178°
Inputs	2x HDMI 2.0, 1 x DP 1.4 (SST), 2 x SDI (3G, 12G)
Outputs	1 x HDMI 2.0, 2 x SDI (3G, 12G),
Power Input	AC/DC Adaptor (AC 100~240V, DC 24V/6.6A)
Power Output	DC Output (1 x 12V/2A, 1 x 5V/2A)
Power consumption	110W max
IP rating	IP33- overall
Dimensions	671 x 423 x 74.2 mm (w x h x d)
Weight	9.17kg (monitor with cover)
Certifications	ANSI/AAMI ES60601-1(UL60601-1), CAN/CSA C22.2 No. 60601-1, FCC Class B, EN60601-1, EN60601-1-2, CE, MDR(EU) 2017/745 Class I Medical Device

Delivery contains

Monitor, user manual, AC-DC adapter, AC power cord, DP cable, HDMI cable, SDI cable (FM-E2701DG), M4 screws.

11.3 MEDICAL 4K ULTRA HD MONITORS

FSN 32" 4K ULTRA HD MEDICAL MONITOR

- *Vivid colors plus high brightness level*
- *Optical bonding for improved picture contrast*
- *Fast detection of MIS camera system video*



CF-003-028

Ordering no.	Product
CF-003-028	FSN FM-E3203DG | 32" 4K ULTRA-HD MEDICAL MONITOR
CF-010-007	STAND BASE FOR MONITOR CF-003-028

Technical data	
Size	32" TFT LCD (LED)
Resolution	3840 x 2160 pixels
Aspect	16:9
Number of colours	Approx. 1.07 billion
Contrast ratio	1.350:1 typical
Active area	708.48(h)mm x 398.82(v)mm
Viewing angle	R/L 178°, U/D 178°
Inputs	1 x HDMI 2.0, 2 x DP 1.2, 1 x DVI, 4 x SDI (3G), 2 x SDI (12G)
Outputs	1 x DP 1.2, 1 x DVI, 4 x SDI (3G), 2 x SDI (12G)
Power supply	AC/DC adaptor (AC 100 V ~ 240 V, DC 24 V 6.6 A)
Power consumption	Maximum 125 W
Mounting	VESA MIS-D 100 (100 x 100mm)
Standard	IEC 60601-1, IEC 60601-1-2
Dimensions	773 x 478 x 75.2mm (w x h x d), without stand base
Weight	11.8 kg

Delivery contains

Monitor, AC/DC adaptor, operating manual, cable: mains (1), DP (1), HDMI (1), BNC (1), DVI-D (1)- **Delivery without stand** base

11.3 MEDICAL 4K ULTRA HD MONITORS

FSN MEDICAL 55" 4K ULTRA HD LCD MONITOR

- *Excellent color and detail reproduction on a large screen*
- *Wide selection of signal input choices*
- *Built in multi-window layouts*



CF-003-029

Ordering no.	Product
CF-003-029	FSN FM-A5504DG | 55" 4K ULTRA-HD MEDICAL MONITOR

Technical data

Size	55" TFT LCD (LED)
Resolution	3840 x 2160 pixels
Aspect	16:9
Number of colours	Approx. 1.07 billion
Contrast ratio	1.100:1 typical
Active Area	1209.60(h)mm x 680.40(v)mm
Viewing angle	R/L 178°, U/D 178°
Inputs	1 x HDMI 2.0, 2 x DP 1.2, 1 x DVI, 4 x DVI, 4 (Quad) x SDI (3G), 2 x SDI (12G)
Outputs	1 x DP 1.2, 1 x DVI, 4 (Quad) x SDI (3G), 2 x SDI (12G)
Power supply	AC 100 V ~ 240 V
Power consumption	Maximum 140 W
Mounting	VESA 600 x 400mm
Standard	IEC 60601-1, IEC 60601-1-2
Dimensions	1278 x 756 x 88mm (w x h x d), without stand base
Weight	36.42 kg
Certifications	ANSI/AAMI ES60601-1(UL60601-1), CAN/CSA C22.2 No. 60601-1, FCC Class B, EN60601-1, EN60601-1-2, CE, MDD(93/42/EEC) Class I Medical Device

Delivery contains

Monitor, operating manual, remote control (incl. batteries), cable: mains (1), DP (1), HDMI (1), BNC (1), DVI-D (1)-
Delivery without stand base

11.3 MEDICAL 4K ULTRA HD MONITORS

SONY 31" 4K ULTRA HD MEDICAL MONITOR

- *Large 4K Screen*
- *Advanced Image Multiple Enhancer*
- *Compact and stylish Design*
- *Easy to use*
- *User-friendly control panel*



CF-003-023

Ordering no.	Product
CF-003-023	SONY LMD-X310MD | 31" 4K ULTRA-HD MEDICAL MONITOR
CF-010-007	STAND BASE FOR MONITOR CF-003-023

Technical data	
Size	31" a-Si TFT Active Matrix LCD
Picture size	698.0 x 368.1mm, 789.06mm (w x h, diagonal)
Resolution	4096 x 2160 pixels
Aspect	17:9
Display colours	Approx. 1.073 billion
Contrast ratio	3840 x 2160 pixels
Active area	1.450:1
Viewing angle	89°/89°
Inputs	HDMI, DVI-D, SDI (BNC, 3G/HD/SD-SDI), D-Sub 9 pins, RJ-45
Outputs	DVI-D, SDI (BNC)
Power supply	AC/DC adaptor (AC 100 V ~ 240 V, DC 26 V 6.9 A)
Power consumption	Maximum 180 W
Mounting	VESA MIS-D 100 (100 x 100mm)
Standard	IEC 60601-1
Dimensions	753.8 x 456.4 x 69.3mm (w x h x d), without stand base
Weight	11.8 kg

Delivery contains

Monitor, AC/DC adaptor, plug holder (2), operating manual (CD-Rom), cable: mains (1)- **Delivery without stand base**

11.3 MEDICAL 4K ULTRA HD MONITORS

SONY 55" 4K ULTRA HD MEDICAL MONITOR

- *High picture quality*
- *Compact and stylish Design*
- *User-friendly control panel*
- *Easy to clean*



CF-003-024

Ordering no.	Product
CF-003-024	SONY LMD-X550MD | 55" 4K ULTRA-HD MEDICAL MONITOR
CF-010-007	STAND BASE FOR MONITOR CF-003-024

Technical data	
Size	55" a-Si TFT Active Matrix LCD
Picture Size	698.0 x 368.1mm, 789.06mm (w x h, diagonal)
Resolution	4096 x 2160 pixels
Aspect	17:9
Display colours	Approx. 1.073 billion
Contrast ratio	1.450:1
Viewing angle	89°/89°
Inputs	HDMI, DVI-D, SDI (BNC, 3G/HD/SD-SDI), D-Sub 9 pins, RJ-45
Outputs	DVI-D, SDI (BNC)
Power supply	AC 100 V ~ 240 V, 3.2 A - 1.3 A
Power consumption	Maximum 290 W
Mounting	VESA 200 (200 x 200mm)
Standard	IEC 60601-1
Dimensions	1264.6 x 771.5 x 85.5mm (w x h x d), without stand base
Weight	35.2 kg

Delivery contains

Monitor, AC/DC adaptor, operating manual, cable: mains (1), DP (1), HDMI (1), BNC (1), DVI-D (1)- **Delivery without stand base**

11.3 MEDICAL 4K ULTRA HD MONITORS

EIZO 43" 4K ULTRA HD MEDICAL MONITOR

- *Wide Colour Gamut for Distinguishing Tones*
- *HDR Compatibility*
- *Fully Flat Design*
- *Cable Cover for Safety and Hygiene*
- *Streamlined Connectivity*
- *Output Images Directly to Multiple Monitors*



CF-003-031

Ordering no.

Product

CF-003-031

EIZO EX4342 | 43" 4K ULTRA-HD MEDICAL MONITOR

Technical data

Panel Type	TFT Color-LCD Panel (IPS)
Backlight	LED
Size	43" / 109.2 cm
Native Resolution	3840 x 2160 (16:9 aspect ratio)
Viewable Image Size	941.2 x 529.4 mm
Pixel Pitch	0.2451 x 0.2451 mm
Display colours	10-bit colors (SDI): 1.07 billion colors (maximum) 8-bit colors: 16.77 million colors
Contrast ratio	1000:1
Viewing angle	178° / 178°
Inputs	BNC (3G-SDI), BNC (12G-SDI), DVI-D, DisplayPort, HDMI
Outputs	BNC (12G-SDI), DVI-D, DisplayPort
Power supply	AC adapter input: 100- 240 V: 50- 60 Hz Monitor input: DC 48 V, 3.0 A
Power consumption	144 W (maximum)
Dimensions	974x567 mm
Weight	approx. 17 kg
OSD Languages	English, German, French, Spanish, Italian, Swedish, Japanese, Simplified Chinese, Traditional Chinese, Russian, Portuguese
Simultaneous Display	Picture-by-Picture (2 PbyP), Picture-in-Picture (PinP)
Certifications	CE / UKCA (Medical Device), ANSI/AAMI ES60601-1, CAN/ CSA-C22.2 No. 60601-1, IEC/EN 60601-1, VCCI-A, FCC-A, CAN ICES-3(A), RCM, RoHS, China RoHS, WEEE, CCC, BIS

Delivery contains

Monitor, AC/DC adaptor, operating manual, cable: mains (1), DP (1), HDMI (1), BNC (1), DVI-D (1)- **Delivery without stand base**

12. PRINTER

12.1 | ANALOG COLOUR VIDEO PRINTER

12.2 | DIGITAL COLOUR PRINTER

12.3 | ANALOG AND DIGITAL BLACK AND WHITE PRINTER

12.1 ANALOG COLOUR VIDEO PRINTER

SONY UP-25MD

- *Compact design*
- *HDTV signal support 1080i and 720p*
- *PAL and NTSC compatible*
- *Excellent print quality*



CF-005-001

Ordering no.	Product
CF-005-001	SONY UP-25MD COLOUR VIDEO PRINTER

Technical data

TV System	PAL, NTSC (via switch on the unit)
Printing method	Dye sublimation thermal printing
Resolution	423 dpi
Colour gradation	More than 16.7 million colours, 256 gradations (8 bit) for cyan, magenta and yellow
Picture size	UP-21L/24LA: 127.9 x 96.0mm, UP-21L/24SA: 96.0 x 75.6mm
Print speed	UP-21L: 29 sec., UP-21S: 19 sec., UP-24LA: 36 sec., UP-24SA: 25 sec
HDTV in/out signals	1080i/59.94i, 1080/50i (2:1 interlace), 720/59.94p, 720/50p (progressive)
Paper capacity	Size L: max. 50 sheets, size S: max 80 sheets
Video inputs	RGB/YPbPr (BNC x 3), S-Video (4-pin min-DIN x 1), composite video (BNC x 1)
Power supply	100- 240 VAC, 50/60 Hz
Dimensions	212 x 98 x 398mm (w x h x d)
Weight	5.7 kg
Certificates	CE, UL 60601-1, UL 60950-1, CSA C22.2 No. 601.1

Delivery contains

Printer UP-25MD, paper tray (L size), cleaning cartridge, operating manual (cd rom), cable: mains (1)

12.2 DIGITAL COLOUR PRINTER

SONY UP-D25MD

- *Compact design*
- *Direct connection to ultrasound or endoscopic units via USB 2.0*
- *Excellent print quality*



CF-005-001

Ordering no.	Product
CF-005-011	SONY DIGITAL A6 COLOUR PRINTER UP-D25MD

Technical data

Printing method	Dye sublimation thermal printing
Resolution	423 dpi
Colour gradation	More than 16.7 million colours, 256 gradations (8 bit) for cyan, magenta and yellow
Picture size	UP-21L/24LA: 126.0 x 96.0mm, UP-21L/24SA: 96.0 x 72.0mm
Print speed	UP-21L: 29 sec., UP-21S: 19 sec., UP-24LA: 36 sec., UP-24SA: 25 sec.
Paper capacity	Size L: max. 50 sheets, size S: max 80 sheets
Interface	High-Speed-USB (USB 2.0) typ B
Power supply	100- 240 VAC, 50/60 Hz
Dimensions	212 x 98 x 398mm (w x h x d)
Weight	5.5 kg
Certificates	CE, UL 60601-1, UL 60950-1, CSA C22.2 No. 601.1

Delivery contains

Printer UP-D25MD, paper tray (L size), cleaning cartridge, operating manual (cd rom), cable: mains (1), USB (1)

12.3 ANALOG AND DIGITAL BLACK AND WHITE PRINTER

SONY UP-X898MD | HYBRID GRAPHIC PRINTER

- *High print quality*
- *Hybrid working with analog and digital inputs*
- *Picture saving on USB-sticks*
- *Improved operability*
- *A6 prints in less than two seconds*



CF-005-007

Ordering no.	Product
CF-005-007	SONY UP-X898MD | HYBRID GRAPHIC PRINTER

Technical data

Printing method	Direct thermal printing
Resolution	325 dpi
Colour gradation	256 gradations (8 bit) processing
Picture elements	EIA: 1210 x 490 points, CCIR: 1210 x 582 points
Print speed	1.9 sec. (SP:HI), 3.3 sec. (SP:NOR)
Picture storage	10 images (800 k x 8 bits total image)
Inputs	Video (BNC), USB, Hi-Speed-USB, NTSC- or PAL-Composite-Video-Signal
Outputs	Video (BNC), Remote: stereo mini jack socket
Power supply	100- 240 VAC, 50/60 Hz
Dimensions	154 x 88 x 240mm (w x h x d)
Weight	2.5 kg
Certificates	CE, UL 60601-1, UL-60950, EN60601-1, EN60601-1-2

Delivery contains

Printer UP-X898MD, thermal head cleaning sheet, operating manual (cd rom), software, cable: mains (1)

12.3 ANALOG AND DIGITAL BLACK AND WHITE PRINTER

SONY UP-D898MD | DIGITAL GRAPHIC PRINTER

- *High print quality*
- *Compact design*
- *Picture saving on USB-sticks*
- *Improved operability*
- *A6 prints in less than two seconds*



CF-005-006

Ordering no.

Product

CF-005-006

SONY UP-D898MD | DIGITAL GRAPHIC PRINTER

Technical data

Printing method	Direct thermal printing
Resolution	325 dpi
Colour gradation	256 gradations (8 bit) processing
Picture elements	EIA: 1210 x 490 points, CCIR: 1210 x 582 points
Print speed	1.9 sec. (SP:HI), 3.3 sec. (SP:NOR)
Picture storage	Digital: 4.096 x 1.280 x 8 (bit)
Interface	Hi-Speed-USB (USB 2.0)
Power supply	100- 240 VAC, 50/60 Hz
Dimensions	154 x 88 x 240mm (w x h x d)
Weight	2.5 kg
Certificates	CE, UL 60601-1, UL-60950, EN60601-1, EN60601-1-2

Delivery contains

Printer UP-D898MD, thermal head cleaning sheet, operating manual (cd rom), software, cable: mains (1), USB (1)

12.3 ANALOG AND DIGITAL BLACK AND WHITE PRINTER

SONY UP-971AD | HYBRID GRAPHIC PRINTER

- *Processing of analog and digital input signals*
- *Compact design*
- *High-quality printouts*
- *Extreme user friendly*



CF-005-008

Ordering no.	Product
CF-005-008	SONY UP-971AD | HYBRID GRAPHIC PRINTER
CF-005-009	SONY UP-991AD | WITH BLUE-BASED TRANSPARENT FILM PRINT AND USB CONNECTION

Technical data

Printing method	Direct thermal printing
Resolution	325 dp i
Colour gradation	256 gradations
Picture size	Digital: 200 x 150mm, NTSC: 188 x 143mm, PAL: 188 x 140mm
Print speed	8 sec. per image (standard mode)
Picture storage	Digital: 70 MBit, NTSC: 31 MBit, PAL: 38 MBit
Interface	Hi-Speed-USB, Video (BNC), Composite
Power supply	100- 240 VAC, 50/60 Hz
Dimensions	316 x 132.5 x 265mm (w x h x d)
Weight	7 kg
Certificates	CE, UL 60601-1, UL-60950, EN60601-1, EN60601-1-2

Delivery contains

Printer UP-971AD, cleaning sheet for print head, operating manual (cd rom), software, cable: mains (1), BNC (1), USB (1)

13. TROLLEYS

13.1 | TROLLEYS

13.2 | ACCESSORIES

ENDOSCOPE HOLDER

CAMERA HOLDER

MONITOR HOLDER

GAS BOTTLE / DRIP HOLDER

IV POLE / STANDARD RUNNER

TRANSFORMER / SOCKET STRIP

EQUIPOTENTIAL BONDING

13.1 | TROLLEYS

STEMA TROLLEY 1 + 2

- *Individual arrangement*
- *Adjustable shelves*
- *Safe placement of different units*
- *Easy moving through special roles*



CH-001-001 | CH-001-002

Ordering no.	Product
CH-001-001	STEMA TROLLEY 1
CH-001-002	STEMA TROLLEY 2

Technical data

Surface	Basic colour RAL 7035 (light grey), decor colour RAL 5013 (cobalt blue), powder coated, further colours on request
Dimension trolley	CH-001-001: 143.5 x 71.4 x 62.5cm (h x w x d) CH-001-002: 143.7 x 61.4 x 62.5cm (h x w x d)
Dimension racks	CH-001-001: 60 x 50cm (w x d) CH-001-002: 50 x 50cm (w x d)
Weight	64 kg (basic version)
Condition on delivery	Disassembled
Addition information	CH-001-001: Combinable only with holders for flat screen CH-010-003 and CH-010-004 CH-001-002: Combinable only with holders for flat screen CH-010-023 and CH-010-024

Delivery contains

Basic unit, racks (4)- 1 of them with handle, drawer (1), energy columns (2), double wheels (4)- 2 of them lockable

13.1 | TROLLEYS

STEMA TROLLEY 3 + 4

- *Individual arrangement*
- *Adjustable shelves*
- *Safe placement of different units*
- *Easy moving through special roles*



CH-001-004



CH-001-005

Ordering no.	Product
CH-001-004	STEMA TROLLEY 3
CH-001-005	STEMA TROLLEY 4

Technical data	
Surface	Basic colour RAL 7035 (light grey), decor colour RAL 5013 (cobalt blue), powder coated, further colours on request
Dimension trolley	82.9 x 61.4 x 62.5cm (h x w x d)
Dimension racks	50 x 50cm (w x d)
Weight	48 kg (basic version)
Condition on delivery	Disassembled
Addition information	CH-001-005: See CH-001-004 but with 2 racks, without drawer

Delivery contains (CH-001-004)

Basic unit, rack with handle (1), drawer (1), double wheels (4)- 2 of them lockable

Delivery contains (CH-001-005)

Basic unit, rack with handle (1), rack without handle (1), double wheels (4)- 2 of them lockable

13.1 | TROLLEYS

TROLLEY USED FOR STEMA ESU

- *Just few minutes to assembly*
- *Shelves adjustable in steps of 25mm*
- *Front wheels with breaks*
- *Light and resistant*
- *Versatile*
- *Easy to carry even in your car*
- *Easy to clean*
- *Made in steel and aluminium*



CH-001-011

Ordering no.	Product
CH-001-011	TROLLEY USED FOR STEMA ESU

Technical data

Dimension trolley	48.2 x 50 x 77.8cm (l x w x h)
Dimension racks	40 x 36 x 20 (l x w x h)
Weight	80 kg (basic version)
Condition on delivery	Disassembled

Delivery contains (CH-001-011)

Basic unit, rack with handle (2), drawer (1), double wheels (4)- 2 of them lockable

13.2 | TROLLEYS ACCESSORIES

ENDOSCOPE HOLDER



Ordering no.

CH-010-012 Endoscope holder, single, for flexible scopes, mounting in the vertical profile



Ordering no.

CH-010-013 Endoscope holder, single, for flexible scopes, mounting at the rack



Ordering no.

CH-010-014 Endoscope holder, double, for flexible scopes, mounting in the vertical profile

13.2 | TROLLEYS ACCESSORIES

CAMERA HOLDER



Ordering no.

CH-010-009 Camera head fixation device



Ordering no.

CH-010-001 Camera head holding device



Ordering no.

CH-010-002 Camera head holding device with fixation pin

13.2 | TROLLEYS ACCESSORIES MONITOR HOLDER



Ordering no.

- CH-010-004** Holder for flat screen monitors, VESA 75/100, 20°tilt, 170°swivel, monitor weight: 14-18kg, for CH-001-001
- CH-010-023** Holder for flat screen monitors, VESA 75/100, 15°tilt, 35°swivel, monitor weight: 0-14kg for CH-001-002
- CH-010-024** Holder for flat screen monitors, VESA 75/100, 20°tilt, 170°swivel , for CH-001-002



Ordering no.

- CH-010-005** Medical monitor support arm

13.2 | TROLLEYS ACCESSORIES

GAS BOTTLE/DRIP HOLDER



Ordering no.

CH-010-011

Drip bowl



Ordering no.

CH-010-016

Gas bottle holder, for gas bottles with 3/5/10 liters



Ordering no.

CH-010-017

Gas bottle holder, for gas bottles with 20 liters

13.2 | TROLLEYS ACCESSORIES IV POLE / STANDARD RUNNER



Ordering no.

CH-010-018 Stand for infusion bottle, one hand use



Ordering no.

CH-010-019 Stand for infusion bottle

13.2 | TROLLEYS ACCESSORIES TRANSFORMER



Ordering no.

CH-010-022 Transformer, 660 V

13.2 | TROLLEYS ACCESSORIES SOCKET STRIP



Ordering no.

CH-010-021 6-way socket strip with 5m main cable

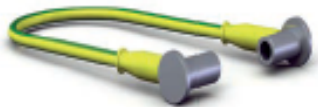
13.2 | TROLLEYS ACCESSORIES

EQUIPOTENTIAL BONDING POAG



Ordering no.

CH-010-029 Plate with 9 equipotential bonding connectors



Ordering no.

CH-010-030 Equipotential bonding cable, length 0,3 m

CH-010-031 Equipotential bonding cable, length 0,5 m

CH-010-032 Equipotential bonding cable, length 1,0 m

CH-010-033 Equipotential bonding cable, length 1,5 m

CH-010-034 Equipotential bonding cable, length 5,0 m



We recommend you the Set:

1X CH-010-029 | 2X CH-010-031

3X CH-010-032 | 1X CH-010-033

14. STEMA SOLUTION

14.1 | STEMA SOLUTION 4K

14.2 | STEMA SOLUTION 1CMOS HIGH

14.3 | STEMA SOLUTION 1CMOS ECO

STEMA SOLUTION FOR ENDOSCOPY



STEMA SOLUTION 4K

TROLLEY

- ① Trolley | CH-001-002
- ② Camera holding device | CH-010-001
- ③ Gas bottle holder | CH-010-016
- ④ Holder for flat screen | CH-010-024
- ⑤ Socket strip | CH-010-021

MONITOR

- ⑥ FSN FM-F3203DG 32" 4K | CF-003-028

CAMERA

- ⑦ STEMA FOUR K PRO 1++ | CA-001-017
- ⑧ TV Adapter 4K UHD Zoom | CD-001-045

LIGHT SOURCE

- ⑨ LED 2 | CB-005-007

INSUFFLATOR

- ⑩ STEMA FLOW 45-H | CC-001-014

SUCTION IRRIGATION PUMP

- ⑪ STEMA PRO 2S | CG-001-030
- ⑫ License for arthroscopy | CG-001-031



STEMA SOLUTION 1 CMOS HIGH

TROLLEY

- ① Trolley | CH-001-002
- ② Camera holding device | CH-010-001
- ③ Gas bottle holder | CH-010-016
- ④ Holder for flat screen | CH-010-024
- ⑤ Socket strip | CH-010-021

MONITOR

- ⑥ FSN FM-FS-L"2702D 27" 4K | CF-003-032

CAMERA

- ⑦ STEMA PRO 2S | CA-001-040
- ⑧ TV Adapter 4K UHD Zoom | CD-001-037
- ⑨ Camera head FULL HD Zoom | CD-001-041

LIGHT SOURCE

- ⑩ STEMA LED 2 | CB-005-006

INSUFFLATOR

- ⑪ STEMA FLOW 20-H | CC-001-012

SUCTION IRRIGATION PUMP

- ⑫ STEMA PRO 2S | CG-001-030
- ⑬ License for arthroscopy | CG-001-031



STEMA SOLUTION 1 CMOS ECO

TROLLEY

- ① Trolley | CH-001-002
- ② Camera holding device | CH-010-001
- ③ Gas bottle holder | CH-010-016
- ④ Holder for flat screen | CH-010-024
- ⑤ Socket strip | CH-010-021

MONITOR

- ⑥ FSN FM-FS-L"2702D 27" 4K | CF-003-032

CAMERA

- ⑦ STEMA PRO 2S | CA-001-040
- ⑧ TV Adapter 4K UHD Zoom | CD-001-037

LIGHT SOURCE

- ⑨ STEMA LED 2 | CB-005-006

INSUFFLATOR

- ⑩ STEMA FLOW 20-H | CC-001-012

SUCTION IRRIGATION PUMP

- ⑪ STEMA PRO 2S | CG-001-030
- ⑫ License for arthroscopy | CG-001-031



YOU PREFER
A DIFFERENT SOLUTION?
WE WILL CREATE
AN INDIVIDUAL OFFER
FOR YOU.

1. CAMERA

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2. LIGHTSOURCES

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