ENDOSCOPY
STEMA PRODUCTS

UNITS

ABOUT US

SINCE 20 YEARS

EXPORT IN +70 COUNTRIES

MADE IN GERMANY

+ 10.000 PRODUCTS

LOCATED IN THE WORLD CENTER FOR MEDICAL TECHNOLOGY

CERTIFICATED

STEMA Medizintechnik GmbH is certified in accordance with the highest standards:
- EN ISO 13485:2016 + AC:2018 + A11:2021- ISO 13485:2016
- EU 2017/745 **(MDR)**
- Council Directive 93/42/EEC Annex II excluding Section 4
- Council Directive 93/42/EEC Annex V excluding Section 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.

STEMA

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

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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*

WITH CAPTURE

CA-001-019

CA-001-018

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

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. 150g

System

Image resolution	Full HD 1920 x 1080 (1080 p)
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 (25 VA)
Frequency	50 - 60 Hz
Connections	**Video out terminal:** 1 x HDMI
	Other connections: 1 x USB (A), 1 x Remote IN (footswitch), 1x Remote OUT (video printer, video recorder, etc.), 1 x 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)
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 35mm (w x h x d)
Weight	approx. 4.7g
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 (3.05 m), operating manual, cable: mains (1), HDMI-DVI (1), HDMI (1)

1.1 | ACCESSORIES | STEMA ECO HD

Ordering no.	Description
CD-001-028	**Additional charge for CA-001-018	CA-001-019:** HD Camera head with three push buttons (twice 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.	Description
CA-001-027	**STEMA ECO HD PRO**

Technical data

Camera head (with 3 push buttons)

Aspect ratio	16:9
Image sensor	**1/2" CMOS**
Dimensions	38 x 79mm
Weight	180g
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 (25 VA)
Frequency	50 - 60 Hz
Connections	**Video out terminal:** 1 x HDMI, 1 x DVI, 1 x SDI, 1 x Video
	Other connections: 1 x USB (A), 1 x Remote IN (footswitch), 2 x 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	4.5kg

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 (3.05 m), 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*

WITH CAPTURE

CA-001-014

CA-001-012

Ordering no.	Description
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	105g

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
Connentions	**Video out terminal:** 1 x HDMI, 1 x Y-Pb-Pr (Component), 1 x Video (PAL/NTSC), 1 x S-Video (PAL/NTSC), 2 x HD SDI (optional)
	Other connections: 1 x USB (A) (USB-keyboard), 1 x Remote IN (footswitch), 1 x Remote OUT (video printer, video recorder, etc.), 1 x 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	2 x 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	4.5kg
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 | 1/3" CMOS HD CAMERA
STEMA PRO 2S+

- *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-001-040

Ordering no.	Description
CA-001-040	**STEMA PRO 2S+**

Technical data

Camera head	All matching camera heads as well as the corresponding technical data please find on page 12

System

Image resolution	Full HD 1920 x 1080px
White balance	Manually with data hold
Supply voltage	100 - 240 V AC
Frequency	50 - 60 Hz
Power consumption	0.8 - 0.4 A
Outputs	**Video outputs:** 2 x DVI, 2 x HD-SDI
	Other connections: 1 x MIS-Bus, 2 x USB, 2 x Remote IN, 2 x Remote OUT
Standard	IEC 60601-1 2nd and 3rd
Device classification (EU) 2017/745, Annex VIII	I
Safety class	BF
IP code	IP21
Directive compliance	CE-mark
Dimensions	295 x 100 x 355mm (w x h x d)
Weight	4.39kg

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.	Description
CA-001-041	**CAMERA HEAD FULL HD ZOOM**

Image sensor .... 1/3" CMOS (progressive)
Sensor resolution............................ 1920 x 1080px, 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
Dimensions .... 39 x 40 x 134mm with endocoupler
Weight 210g

Ordering no.	Description
CA-001-042	**CAMERA HEAD FULL HD FIX FOCAL LENGTH**

Image sensor .... 1/3" CMOS (progressive)
Sensor resolution............................ 1920 x 1080px, 50/60 p
Function keys .... 3 programmable, illuminated keys
Endo coupler .... Standard ocular, lockable
Focal length .... f = 14.25mm
Connection plug .... Waterproof
Reprocessing .... STERRAD® compatible
Length cable 3.5m
Dimension .... 39 x 40 x 120mm with endocoupler
Weight 200g

Ordering no.	Description
CA-001-043	**CAMERA HEAD FULL HD 90° ANGLED**

Image sensor .... 1/3" CMOS (progressive)
Sensor resolution .... 1920 x 1080px, 50/60p
Function keys .... 3 programmable, illuminated keys
Endo coupler .... Standard ocular, lockable
Focal length .... f = 14.25mm
Connection plug .... Waterproof
Reprocessing .... STERRAD® compatible
Length cable 3.5m
Dimension .... 57 x 52 x 165mm with endocoupler
Weight 190g

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*

WITH CAPTURE

CA-001-015

CA-001-013

Ordering no.	Description
CA-001-015	STEMA PRO 2 CAPTURE
CA-001-013	STEMA PRO 2
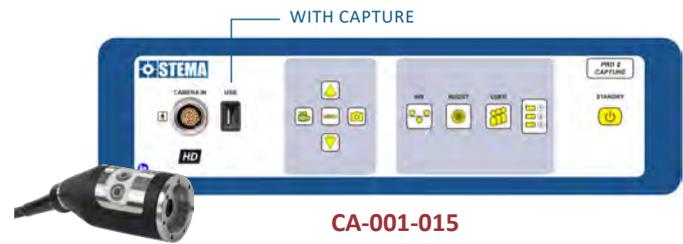
Technical data

Camera head (with push buttons)

Aspect ratio	16:9
Image sensor	**3 x 1/3" CMOS**
Immersible	Yes (using the attached cap)
Dimensions	38.5 x 81mm
Weight	145g

System

Image resolution	Full HD 1920 x 1080px
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 (50 VA)
Frequency	50 - 60 Hz
Connections	**Video out terminal:** 2 x HD-SDI, 1 x HDMI/DVI, 1 x Y-Pb-PR (Component), 1 x Y/C (PAL/NTSC), 1 x CVBS (PAL/NTSC)
	Other connections: 1 x USB (A) (USB keyboard), 1 x Remote IN (footswitch), 1 x Remote OUT (video printer, video recorder, etc.), 1 x RJ45 (Service)
Recording Options	Image format: JPG 1920 x 1080px, video format: Full HD 1920 x 1080 (Mpeg-4-H.264 Codec) - image rate 60 fps, 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 / IEC 60601-1-1
Device classification (EU) 2017/745, Annex VIII	I
Dimensions	360 x 125 x 351mm (w x h x d)
Weight	4.5kg
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 1080px (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), 2 x 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	5.7kg

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.	Description
CA-001-041	**CAMERA HEAD FULL HD ZOOM**

Image sensor	**1/3" CMOS** (progressive)
Sensor resolution	1920 x 1080px, 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
Dimensions	39 x 40 x 134mm with endocoupler
Weight	210g

Ordering no.	Description
CA-001-042	**CAMERA HEAD FULL HD FIX FOCAL LENGTH**

Image sensor	**1/3" CMOS** (progressive)
Sensor resolution	1920 x 1080px, 50/60p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Focal length	f = 14.25mm
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimension	39 x 40 x 120mm with endocoupler
Weight	200g

Ordering no.	Description
CA-001-043	**CAMERA HEAD FULL HD 90° ANGLED**

Image sensor	**1/3" CMOS** (progressive)
Sensor resolution	1920 x 1080px, 50/60 p
Function keys	3 programmable, illuminated keys
Endo coupler	Standard ocular, lockable
Focal length	f = 14.25mm
Connection plug	Waterproof
Reprocessing	STERRAD® compatible
Length cable	3.5m
Dimension	57 x 52 x 165mm with endocoupler
Weight	190g

1.2 | CAMERA HEADS | STEMA PRO 2S++

Ordering no.	Description
CA-001-054	**CAMERA HEAD FULL HD 3 CMOS ZOOM**

Image sensor	**3 x 1/3" CMOS** (progressive)
Sensor resolution	3 x 1920 x 1080px, 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	330g

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

Ordering no.	Description
CA-001-055	**CAMERA HEAD FULL HD (AUTOCLAVABLE)**

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

TECHNICAL DATA ENDOCOUPLER

Focal length	13 - 29mm
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*

WITH CAPTURE

CA-001-017

CA-001-016

Ordering no.	Description
CA-001-017	STEMA FOUR K PRO 1++ CAPTURE
CA-001-016	STEMA FOUR K PRO 1+
CA-001-029	CAMERA HEAD STEMA FOUR K PRO 1

Technical data

Camera head (with 4 push buttons)

Aspect ratio	16:9
Image sensor	**3 x 1/3" CMOS**
Immersible	Yes (using the attached cap)
Dimensions	43 x 85.7mm
Weight	500g

System

Image resolution	Ultra HD 3840 x 2160px
TV resolution	1.600 lines
Signal-to-noise ratio	54 dB
White balance	Automatically with data hold
Voltage range	100 - 240 V (50 VA)
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)
	SDI Output: 3840 x 2160 / 59.94p (50p), 1920 x 1080 / 59.94p (59.94i/50p/50i)
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 351mm (w x h x d)
Weight	6.2kg
Features	4K UHD resolution, Zoom, freeze, smoke correction, 10 USER Presets for surgical application, Multilingual menu, Image enhancement **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.	Description
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

Suplly 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 6.6kg

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)

CAMERA HEAD COMPATIBILITIES

CAMERAS		
CA-001-040	**CA-001-050**	**CA-001-060**

CAMERA HEADS	CA-001-040	CA-001-050	CA-001-060
CA-001-041 CAMERA HEAD FULL HD **ZOOM**	✓	✓	✓
CA-001-042 CAMERA HEAD FULL HD **FIX LOCAL LENGTH**	✓	✓	✓
CA-001-043 CAMERA HEAD FULL HD **90° ANGLED**	✓	✓	✓
CA-001-054 CAMERA HEAD FULL HD **3 CMOS ZOOM**		✓	✓
CA-001-055 CAMERA HEAD FULL HD **WITH ENDOCOUPLER**		✓	✓
CA-001-061 CAMERA HEAD **4K** UHD **ZOOM**			✓

1.3 | CAMERA HEADS | STEMA PRO 2S 4K

Ordering no.	Description
CA-001-041	**CAMERA HEAD FULL HD ZOOM**

Image sensor .... **1/3" CMOS** (progressive)
Sensor resolution............................ 1920 x 1080px, 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
Dimensions .... 39 x 40 x 134mm with endocoupler
Weight 210g

Ordering no.	Description
CA-001-042	**CAMERA HEAD FULL HD FIX FOCAL LENGTH**

Image sensor .... **1/3" CMOS** (progressive)
Sensor resolution............................ 1920 x 1080px, 50/60p
Function keys .... 3 programmable, illuminated keys
Endo coupler .... Standard ocular, lockable
Focal length .... f = 14.25mm
Connection plug .... Waterproof
Reprocessing .... STERRAD® compatible
Length cable 3.5m
Dimension .... 39 x 40 x 120mm with endocoupler
Weight 200g

Ordering no.	Description
CA-001-043	**CAMERA HEAD FULL HD 90° ANGLED**

Image sensor .... **1/3" CMOS** (progressive)
Sensor resolution .... 1920 x 1080px, 50/60p
Function keys .... 3 programmable, illuminated keys
Endo coupler .... Standard ocular, lockable
Focal length .... f = 14.25mm
Connection plug .... Waterproof
Reprocessing .... STERRAD® compatible
Length cable 3.5m
Dimension .... 57 x 52 x 165mm with endocoupler
Weight 190g

1.3 | CAMERA HEADS | PRO 2S 4K

Ordering no.	Description
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	3.5 m
Weight	330 g

Ordering no.	Description
CA-001-061	**CAMERA HEAD 4K ULTRA HD ZOOM**

Image sensor	**3 x 1/3" CMOS** (progressive)
Sensor resolution	3840 x 2160px, 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	330g

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

Ordering no.	Description
CA-001-055	**CAMERA HEAD FULL HD (AUTOCLAVABLE)**

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

TECHNICAL DATA ENDOCOUPLER

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

1.4 | CAMERA | ACCESSORIES FOR ALL STEMA CAMERAS

Ordering no.	Description
CD-010-003	Keyboard waterproof, **German layout**
CD-010-004	Keyboard waterproof, **US layout**

Ordering no.	Description
CD-010-005	Foot switch

Ordering no.	Description
CD-010-006	USB stick (32 GB) for use with **all** STEMA cameras

Ordering no.	Description
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.	Description
CD-001-019	Beam-splitter, f = 18mm

Ordering no.	Description
CD-001-021	TV **HD** adapter, f = 28mm
CD-001-024	TV **HD** adapter, f = 25mm
CD-001-034	TV **HD** adapter, f = 21mm
CD-001-023	TV **HD** adapter, f = 14mm

Ordering no.	Description
CD-001-046	TV **HD** adapter, f = 18mm

Ordering no.	Description
CD-001-037	TV **HD Zoom** adapter **(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.	Description
CD-001-040	TV **4K** adapter, f = 14mm
CD-001-050	TV **4K** adapter, **rotating**, f = 14mm
CD-001-041	TV **4K** adapter, f = 18mm
CD-001-051	TV **4K** adapter, **rotating**, f = 18mm
CD-001-042	TV **4K** adapter, f = 22mm
CD-001-052	TV **4K** adapter, **rotating**, f = 22mm
CD-001-043	TV **4K** adapter, f = 25mm
CD-001-053	TV **4K** adapter, **rotating**, f = 25mm
CD-001-044	TV **4K** adapter, f = 28mm
CD-001-054	TV **4K** adapter, **rotating**, f = 28mm

Ordering no.	Description
CD-001-045	TV **4K Zoom** adapter, f=15-30mm
CD-001-055	TV **4K Zoom** adapter, **rotating**, f=15-30mm

Ordering no.	Description
CD-001-056	TV **4K ICG** adapter, f=25mm
CD-001-057	TV **4K ICG** adapter, **rotating**, f=25mm

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

- *Low noise*
- *Daylight quality*
- *Low heat conduction*
- *Electronical light control via buttons*
- *Waterproof control panel*
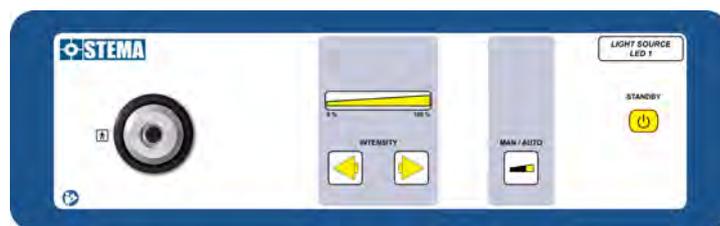
CB-004-002

Ordering no.	Description
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	1 x 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	5kg

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

RECOMMENDED PRODUCTS

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

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.	Description
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	>20.000 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	10kg

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

RECOMMENDED PRODUCTS

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

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 light guides*

CB-005-006

Ordering no.	Description
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
Luminus flux	1.420 lm
Light guide connection	Multi light guide Adapter (STEMA, Storz, Wolf, Olympus, ACMI)
Setting light intensity	**Automatic and manual**
Connectivity	MIS-Bus interface
Power consumption	Approx. 140 W (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	8kg

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

RECOMMENDED PRODUCTS

CK-001-012   High perfomance 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 perfomance fiber optic light cable	Ø 2.8mm	180cm
CK-001-007	High perfomance fiber optic light cable	Ø 2.8mm	300cm
CK-001-001	High perfomance fiber optic light cable	Ø 3.5mm	180cm
CK-001-002	High perfomance fiber optic light cable	Ø 3.5mm	230cm
CK-001-003	High perfomance fiber optic light cable	Ø 3.5mm	300cm
CK-001-011	High perfomance fiber optic light cable	Ø 4.8mm	180cm
CK-001-012	High perfomance fiber optic light cable	Ø 4.8mm	230cm
CK-001-013	High perfomance fiber optic light cable	Ø 4.8mm	300cm
CK-001-014	High perfomance 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.	Description
CK-010-001	Fiber optic light cable adapter, scope side **STEMA / Storz / Olympus / Stryker**

Ordering no.	Description
CK-010-002	Fiber optic light cable adapter, scope side **Wolf / HSW**

Ordering no.	Description
CK-010-003	Fiber optic light cable adapter, scope side **ACMI**

Ordering no.	Description
CK-010-021	Scope adapter **Storz**

Ordering no.	Description
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.	Description
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.	Description
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.	Description
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.	Description
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

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

Ordering no.	Description
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.	Description
CJ-001-011	Spare lamp for Halogen light sources **STEMA 250**
CJ-001-012	Spare lamp for Halogen light sources **STEMA 150**

3. ICG

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*

CA-001-025

Ordering no.	Description
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: **4 x 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 .... 1 x HDMI 4K (3840 x 2160), 1 xHDMI Full HD (1920 x 1080), 1 x SDI 4K
(4 x BNC) (2840 x 2160), 1 x SDI Full HD (1 x BNC) (1920 x 1080)

Video format .... **HDMI output:** 3840 x 2160/59.94p, 3840 x 2160/50p,
1920 x 1080/59.94p, 1920 x 1080/59.94i, 1920 x 1080/50p,
1920 x 1080/50i
.... **SDI output:** 3840 x 2160/59.94p, 3840 x 2160/50p,
1920 x 1080/59.94p, 1920 x 1080/59.94i, 1920 x 1080/50p,
1920 x 1080/50i

Display mode: .... 3 modes: RGB , RGB+NIR (Overlay), RGB+NIR (Split Screen)
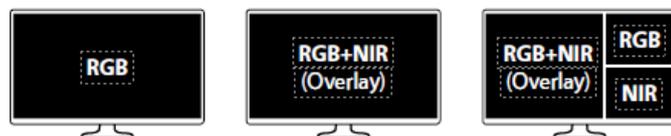
Capture .... Image, Video

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.	Description
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 39.

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	3.5mm	2300mm
CK-001-063	ICG glass fibre light guide	3.5mm	3000mm
CK-001-064	ICG glass fibre light guide	3.5mm	3500mm
CK-001-052	ICG glass fibre light guide	4.8mm	2300mm
CK-001-053	ICG glass fibre light guide	4.8mm	3000mm
CK-001-054	ICG glass fibre light guide	4.8mm	3500mm

4. COMBINATION

4.1 | STEMA COMBI UNIT PRO

4.1 | COMBINATION
STEMA COMBI UNIT PRO

CE-003-005

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

Ordering no.	Description
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	2 x 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 1920 x 1080, Video format: Full HD 1920 x 1080, Connection: USB (A)
Lamp	LED lamp, comparable 50 W
Light guide connection	STEMA, Storz
Connections	**Video out terminal:** 1 x HDMI, 1 x DVI, 1 x SDI, 1 x Video
	Other connections: 1 x USB (A) (Service), 1 x Remote IN (footswitch), 1 x 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: 295 x 128 x 278mm, Weight: approx. 3kg

Please find the accessories for our light sources on pages 30-34.

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

5. INSUFFLATORS

5.1 | INSUFFLATORS STEMA FLOW
STEMA FLOW 20 | STEMA FLOW 20-H

CC-001-002

CC-001-012

- *Full automatic*
- *Filter system for sterility*
- *Gas flow up to 20 liters / minute*
- *Microprocessor controlled*
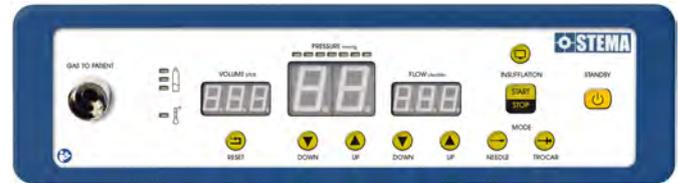
Ordering no.	Description
CC-001-002	**STEMA FLOW 20**
CC-001-012	**STEMA FLOW 20-H	WITH SYSTEM GAS HEATER**

Technical data

Gas	Carbon dioxide (medical)
Gas flow	Max. 20 l/min.
Gas connection	UNF 7/16"
Insufflation pressure	0 - 30mmHg
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	6.7kg

Please find the accessories for our insufflators on pages 50-52.

Delivery contains
Insufflator (control unit), CO_2 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

CC-001-003

CC-001-013

- *Full automatic*
- *Filter system for sterility*
- *Gas flow up to 30 liters / minute*
- *Microprocessor controlled*
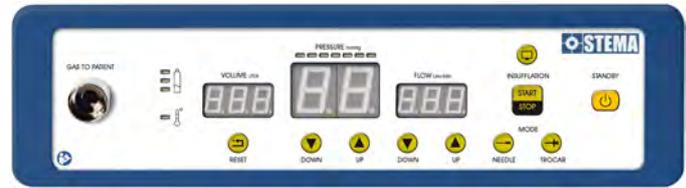
Ordering no.	Description
CC-001-003	**STEMA FLOW 30**
CC-001-013	**STEMA FLOW 30-H	with system gas heater**

Technical data

Gas	Carbon dioxide (medical)
Gas flow	Max. 30 l/min.
Gas connection	UNF 7/16"
Insufflation pressure	0-30mmHg
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	6.7kg

Please find the accessories for our insufflators on pages 50-52.

Delivery contains
Insufflator (control unit), CO_2 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*
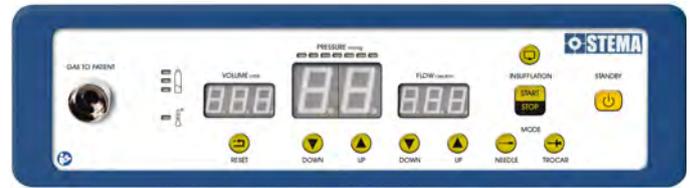
CC-001-004

CC-001-014

Ordering no.	Description
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 - 30mmHg
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	6.7kg

Please find the accessories for our insufflators on pages 50-52.

Delivery contains
Insufflator (control unit), CO_2 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.	Description
CJ-002-001	Gas heater for insufflators, autoclavable

Ordering no.	Description
CJ-002-002	Silicone tubing set, length 2.5m, autoclavable

Ordering no.	Description
CJ-002-003	Silicone tubing set for use with system gas heater, length 2.5m, autoclavable

Ordering no.	Description
CJ-002-004	Sterile filters, 50 pieces per box
CJ-002-019	Sterile filters, 100 pieces per box

5.2 | INSUFFLATORS | ACCESSORIES

Ordering no.	Description
CJ-002-008	High pressure tube (CO2) for STEMA insufflators, connections: **UNF / GER**, length 1.0m

Ordering no.	Description
CJ-002-012	High pressure tube (CO2) for STEMA insufflators, connections: **DIN GER / DIN GER**, length 1.0m

Ordering no.	Description
CJ-002-014	High pressure tube (CO2) for STEMA insufflators, connections: **UNF / UNF**, length 1.0m

Ordering no.	Description
CJ-002-031	Membrane for High pressure reducer, Insufflators

5.2 | INSUFFLATORS | ACCESSORIES

Ordering no.	Description
CJ-002-016	High pressure tube (CO2) for STEMA insufflators, connections: **UNF / GER**, length 1.0m

Ordering no.	Description
CJ-002-018	High pressure tube (CO2) for STEMA insufflators, connections: **UNF / ISO**, length 1.0m

Ordering no.	Description
CJ-002-026	Gas bottle (CO2), connection: **GER,** 0.75kg
CJ-002-027	Gas bottle (CO2), connection: **PIN index**, 0.75kg

STEMA

5.3 | SURGICAL SMOKE EVACUATION

- **Ideal flow for physician offices and outpatient surgery centers**
- **Customizable filter life**
- **Compact shelf design**
- **3-port filter with filter life tracking technology**

CG-005-015

Ordering no.	Description
CG-005-015	**HBS HEBU SMOKE EVACUATION SYSTEM**

Technical data

System

Dimensions (H x W x D)	370mm x 144mm x 375mm
Weight	10kg
Noise Level, dBA	55dB
Footswitch Activation	Standard pneumatic
Remote Control Activation	RF sensor in range 350 - 600kHz
Flow Control	Variable 1- 10 Steps, in step of 1
OFF Time Delay Control	Setting from off to 10 sec, in step of 1 sec
Filter status	Green | New
	Orange | Middle, >16h
	Red | Hoch, >33h
	Violet | Service, 40h
Vaccum level	Yes, bargraph
Choice of three Programs	1. Open Tubing | 100% maximal flow
	2. Electrosurgical Pencil Attachment / Integrated Smoke Evacuation Pencil | 85% maximal flow
	3. Laparoscopic Tubing | 75% maximal flow
Choice of activation method	Footswitch + Display | Remote control
Power supply	220 – 240Vac | 50- 60Hz
Input power	Max: 460VA (PF = 0.5)
	Standby: 6VA (PF = 0.4)
Fuses	230V: 2 x T6.3A
Standard	EN 60601-1
Safety	Protection class: I | Earthing terminal: yes
Motor static suction	21 kPa

5.3 | SURGICAL SMOKE EVACUATION | ACCESSORIES

Ordering no.	Description
CG-005-016	Pneumatic footswitch used for the HBS HEBU Smoke evacuation system

Ordering no.	Description
CG-005-017	Clip cable used for the HBS HEBU Smoke evacuation system

Ordering no.	Description
CG-005-018	Liquid trap	HBS HEBU Smoke evacuation system

6. SUCTION-IRRIGATION SYSTEMS

6.1 | IRRIGATION PUMP
STEMA HYS | URO | ARTHRO
STEMA I
ACCESSORIES

6.2 | SUCTION-IRRIGATION PUMP
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.	Description
CG-001-001	STEMA HYS	IRRIGATION PUMP FOR HYSTERESCOPY
CG-001-002	STEMA URO	IRRIGATION PUMP FOR UROLOGY
CG-002-001	STEMA ARTHRO	IRRIGATION PUMP FOR ARTHROSCOPY

Technical data

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

Please find the accessories for our irrigation pumps on pages 52-53.

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 3 l/min*
- *Suction capacity up to 3 l/min*
- *Highest safety and user comfort*
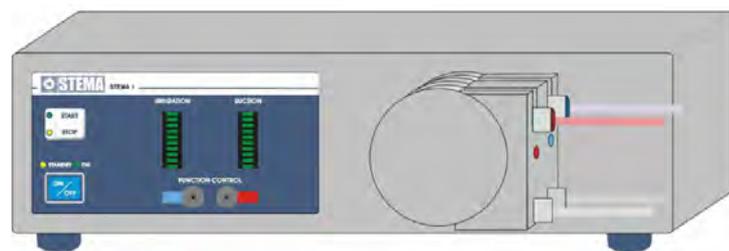
CG-003-001

Ordering no.	Description
CG-003-001	STEMA I

Technical data

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

Please find the accessories for our irrigation pumps on pages 52-53.

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

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

Ordering no.	Description
CJ-005-005	Euro mains cable, **2m**

Ordering no.	Description
CJ-005-006	Fuse T 400ma, 5 x 20, **PU 10 pieces**
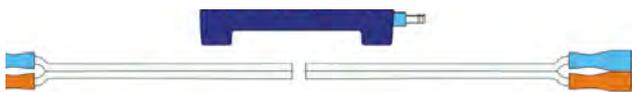
Ordering no.	Description
CJ-005-012	Pneumatic hand control, **autoclavable**

Ordering no.	Description
CJ-005-011	Silicone tubing set, **autoclavable**

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

Ordering no.	Description
CJ-005-023	Preasure measuring chamber for **CG-001-001**, **CG-001-002** and **CG-002-001** autoclavable

Ordering no.	Description
CJ-005-020	Silicone tubing set, **autoclavable**

Ordering no.	Description
CJ-005-022	PVC tubing set, single use, **20 pieces**
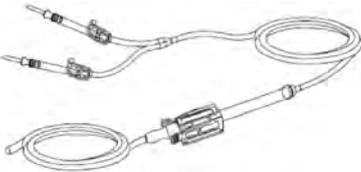
6.2 | SUCTION-IRRIGATION PUMP
STEMA PRO 2S

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. -480mmHg ± 10% — Flow max 2.200ml/min
Flow range	Arthroscopy: 100 - 2.200ml/min
	Hysteroscopy: 100 - 500 ml/min
	Laparoscopy: 100 - 2.200ml/min
	Urology: 100 - 1.000ml/min
	Spine: 100 - 750ml/min
Pressure range	Arthroscopy: 10 - 150mmHg
	Hysteroscopy: 10- 200mmHg
	Laparoscopy: Max. 300mmHg
	Urology: 10 - 150mmHg
	Spine: 10 - 100mmHg
Balance unit	Fluid loss detection: 0-2 l ± 10 %, relative to total inflow volume
Load on scale	Max. 25kg
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 footswith max. 20m
Power supply	100 - 240 V/AC, 50 - 60 Hz
Power consumption	100 VA
Power input	400 - 700mA
Mains fuse	T3, 15 AH, 250 V (5 x 20mm), 2 pieces
Dimensions	360 x 133 x 354mm (w x h x d)
Weight	9.8kg
Classification	Protection class I, type BF, IP 41
Classification according appendix IX of MDD	IIa
Certificates	IEC 60601-1, IEC 60601-1-2

6.2 ACCESSORIES | STEMA PRO 2S

Ordering no.	Description
CJ-005-043	Mains cable, **2m**

Ordering no.	Description
CJ-005-044	Spare fuses, **PU 2 pieces**

Ordering no.	Description
CJ-005-041	Measuring chamber with pump segment, **autoclavable, non sterile**

Ordering no.	Description
CJ-005-042	Spare membran used for measurement chamber, **10 pcs.**

6.2 ACCESSORIES | STEMA PRO 2S

Ordering no.	Description
CJ-005-030	Foot switch used **for CG-001-030, incl. charger**
CJ-005-031	Charger for **CJ-005-030**

Ordering no.	Description
CJ-005-032	Balance unit
CJ-005-045	Balance pan for balance **unit CJ-005-032**

Ordering no.	Description
CJ-005-033	Tubing set for irrigation (silicone) **for CG-001-030, autoclavable, non sterile**

Ordering no.	Description
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**

6.2 ACCESSORIES | STEMA PRO 2S

Ordering no.	Description
CJ-005-037	Vacuum Suction tubing set used for pump **CG-001-030, single use, 40 pcs, used for all indication**

Ordering no.	Description
CJ-005-038	Suction container, 2 liters, **autoclavable, non sterile**

Ordering no.	Description
CJ-005-039	Holder for suction container **CJ-005-038**

Ordering no.	Description
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.	Description
CF-006-006	SONY HD RECORDER HVO-3300MT

Technical data

Recording device	Internal hard disk drive with 2 TB
Recodable media	Internal HDD (2TB), external USB storage, netzwork (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	6.5kg
Certificates	CE, IEC 60601-1

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

STEMA

7.2 | FULL HD VIDEO RECORDER
SONY FULL HD RECORDER HVO-550 MD

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

CF-006-004

Ordering no.	Description
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, erternal 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 Adapter 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	2.9kg
Certificates	CE, IEC 60601-1

Delivery contains
Recorder, operating manual (CD-ROM), power Adapter AC-80MD (1)

STEMA

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.	Description
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, erternal 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)	150 Mbps (best), 100 Mbps (high), 60 Mbps (standard)
Recording HD (bit rate)	24 Mbps (best), 18 Mbps (high), 12 Mbps (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)

STEMA

MVR PRO
THE NEXT GENERATION VIDEO RECORDER

SIMPLE

CONNECTED

POWERFUL

UPGRADE OPTIONS: 4K RECORDING OR DICOM

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

Ordering no.	Description
CF-004-017	MVR PRO
CF-004-018	MVR PRO | Upgrade 4K
CF-004-019	DICOM Upgrade

CF-004-017

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: 2 x HDMI, DVI (with adapter), 4K-SDI with MVC Pro SDI to HDMI (optional)
Video Outputs	1 x HDMI, DVI (with adapter)
Video Input Resolutions	4K on Input 1 only 5: 3840 x 2160 p30, Both inputs (1+2): 1920 x 1200 p60, 1080 p60/50/30/25, 1080 i60/50, 1280 x 1024 p60/50, 720p 60/50
Video Recording Resolutions	3840 x 2160, 1920 x 1200, 1920 x 1080, 1280 x 1024, 1280 x 720. For 3840 x 2160 recording, "4K recording" needs to be activated
Video Recording Bitrates	MP4 / coding H.264 up to 32 Mbit/s (1920 x 1080 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	128 GB | 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, 1000/100/10 Mbit/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: 1,20kg / 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
Upgrades options	**1. 4K Recording**- Records delicate surgeries in stunning 4K (2160 p30/25) **2. DICOM**- Easily retrieve patient DICOM worklist and store to your PACS

Delivery contains

MVR recorder, USB flash drive, HDMI cable, Wi-Fi / BT antenna, HDMI to DVI adapter, Split Remote Cable Adapter, Power Cable, 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
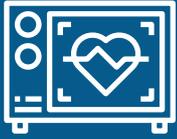
DIAGNOSTICS & RECORDING

RECORD VIDEOS AND PICTURES
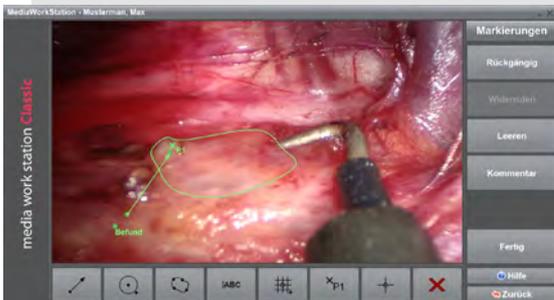
EDIT GRAPHICAL MARKERS

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

ARCHIVE

EDIT COMMENTS

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

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.	Description
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"/54,6 cm TN-LCD, LED-backlight
Operating system	Windows 10 Pro x64
CPU	Intel Core i5 (12. Gen)
RAM	2 x 8G RAM
Storage	SSD 500 GB M.2 module
Graphic card	Intel UHD Graphics 730
Network	2 x 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, 7.4/5.1mm, cable length 1.2 m
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

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),
5 V max current: ~1.4 A,
Operating temperature: 0 to 40 deg C,
Storage temperature: –20 to 70 deg C,
Relative Humidity: 5 % to 90 %
non-condensing

Specification | VESA Mount Video Converter
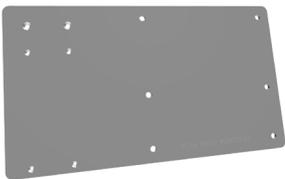
Features .... VESA mount for video converter HDMI/SDI to USB3
VESA 100x100, 100x40, 100x60mm standard

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 22,5mm
Weight: 750 g
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 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.	Description
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	12.2kg
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 (2 x SDS, 2 x 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.	Description
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	12.2kg
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.	Description
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.	Description
CI-001-016	Double foot switch used for STEMA MASTER, 5m cable, multiswitch
CI-001-017	Double pedal foot switch used for STEMA MASTER, 5m cable
CI-001-018	Wireless double pedal foot switch used for STEMA MASTER, 5m cable, multi switch
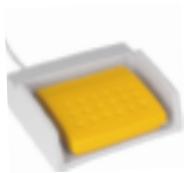
Ordering no.	Description
CI-001-020	One pedal foot switch used for STEMA MASTER, 5m cable, cutting only
CI-001-022	Wireless one pedal foot switch used for STEMA MASTER, 5m cable, cutting mode only

Ordering no.	Description
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.	Description
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
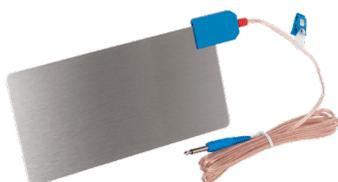
Ordering no.	Description
EK-015-054	Neutral electrode, 25x12,5cm stainless steel, incl. cable, used for STEMA, Martin, Berchtold, Erbe Units, 2,5m

BIPOLAR CABLE

CONNECTION UNIT SIDE

Ordering no.	Description
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

9.2 | 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.	Description
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 concering:
	- 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
Power self-adjustment	**Storage:** of the last 32 Error Codes
	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

9.2 | 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/new-borns. 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 = 828 Va, Stand-by 0.4 A = 92 VA
Cooling	Convection, without fan
Equipotental bonding	Standard DIN 42801 plug
Software upgrade, calibration	Upgrade via serial port connected to a PC, on-site calibration
Size	38 x 38 x 20cm (L x D x H)
Weight	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 95-98

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

9.2 | 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

9.2 | 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 7mm 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

9.2 | 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				

9.2 | 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 HYS

ELECTROSURGICAL UNIT FOR BIPOLAR SURGERY WITH DIRECT, PULSED AND TIMED CURRENTS
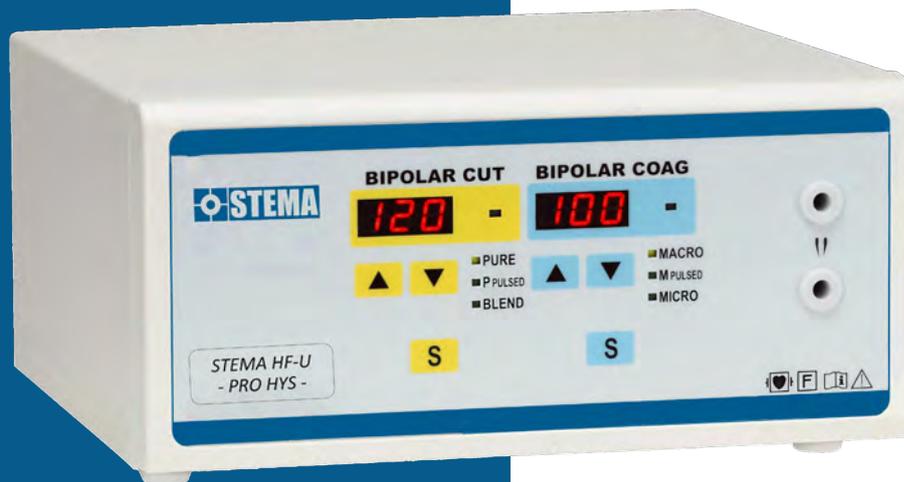
CI-001-032

CI-001-042

9.2 | 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.	Description
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	25 x 24x 12cm (L x D x H) - 4,5kg

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

9.2 | 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%

9.2 | ACCESSORIES
FOOTSWITCHES | STEMA HF-U SERIES

Ordering no.	Description
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.	Description
CI-001-042	Double foot switch, 5m cable used for **STEMA HF-U PRO-HYS**

9.2 | ACCESSORIES
ADAPTER | STEMA HF-U SERIES

Ordering no.	Description
EK-015-060	Universal adapter used for monopolar HF cables

Ordering no.	Description
EK-015-061	Universal adapter used for bipolar HF cables, double banana plug Ø 4mm, Valleylab/Conmed

Ordering no.	Description
EK-015-062	Universal adapter used for bipolar HF-cables, Storz/Erbe

Ordering no.	Description
EK-015-063	Universal adapter used for bipolar HF-cables, Martin/Berchtold

Ordering no.	Description
EK-015-064	Universal adapter used for bipolar HF-cables, Olympus

9.2 | ACCESSORIES
NEUTRAL ELECTRODES | STEMA HF-U SERIES

Ordering no.	Description
EK-015-054	Neutral electrode, 25x12,5cm stainless steel, incl. cable, used for STEMA, Martin, Berchtold, Erbe Units, 2,5m

Ordering no.	Description
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, 5 meter

9.2 | ACCESSORIES
MONOPOLAR AND BIPOLAR CABLES | STEMA HF-U SERIES

CONNECTION UNIT SIDE

Connection Instrument Side	Ordering no.	Description
	AD-010-003	HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, **3m**
	AD-010-008	HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, **5m**
	EE-010-003	HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, **3m**
	EE-010-013	HF-Monopolar connecting cable suitable for Valleylab/Conmed, Ø 8mm, **5m**

CONNECTION UNIT SIDE

Connection Instrument Side	Ordering no.	Description
	EK-010-014	HF-Bipolar cable, Valleylab/flat plug, **3m**
	EK-010-015	HF-Bipolar cable, Valleylab/flat plug, **5m**
	EK-010-064	HF-Bipolar cable, Valleylab/flat plug, square, **3m**
	EK-010-065	HF-Bipolar cable, Valleylab/flat plug, square, **5m**

9.2 | ACCESSORIES
BIPOLAR CABLES | STEMA HF-U SERIES

CONNECTION INSTRUMENT SIDE

Connection Unit Side	Ordering no.	Description
	AD-010-013	HF-Bipolar resectoscope connecting cable suitable for Valleylab, Lamidey, **4.5m**
	AD-010-015	HF-bipolar resectoscope connecting cable suitable for Erbe Vio 3, **4.5m**

STEMA

10. SHAVER

STEMA SHAVER BARRACUDA

BS-001-032

BS-001-033

BS-001-034

Ordering no.	Description
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 desinfection 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: 250mm x W: 330mm x H: 96mm
Weight	4,8kg
Ambient temperature	During operation: + 1 O °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 <u>Arthroscopy.</u>

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

BS-001-033

Technical data | Handpiece

Length	164mm
Weight	325g
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	3,2m
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)

BS-001-034

Technical data | Footswitch

Dimensions	D: 215mm x W: 280mm x H: 28mm
Weight	2,45kg
Cable length	3,2m
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
AIR DRIVEN DRILL

ZA-005-000

Ordering no.	Description
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, 3 METER
ZA-005-048	TUBE FOR AIR DRIVEN DRILL ZA-005-000, 5 METER
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 3.0MM
ZA-005-007	ADAPTER FOR AO ATTACHMENTS
ZA-005-008	ADAPTER FOR DIN ATTACHMENTS
ZA-005-009	ADAPTER FOR OSCILATING SAW, FOR STANDARD ATTACHMENT SAW BLADES 3 M
ZA-005-010	ADAPTER FOR ACETABULUM AND MEDULLARY REAMERS, WITH AO COUPLING 100 RPM

10.2 | DRIVEN DRILL
BATTERY DRIVEN DRILL

ZA-005-001

Ordering no.	Description
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 0.8MM UP TO Ø 3.0MM
ZA-005-007	ADAPTER FOR AO ATTACHMENTS
ZA-005-008	ADAPTER FOR DIN ATTACHMENTS
ZA-005-009	ADAPTER FOR OSCILATING SAW, FOR STANDARD ATTACHMENT SAW BLADES 3 M
ZA-005-010	ADAPTER FOR ACETABULUM AND MEDULLARY REAMERS, WITH AO COUPLING 100 RPM

11. MONITORS

11.1 | MEDICAL HD MONITORS
FSN 27" HD MEDICAL MONITOR

11.2 | MEDICAL FULL HD MONITORS
SONY 21.5" FULL HD MEDICAL MONITOR

11.3 | MEDICAL ULTRA HD MONITORS
ADLINK 27" ULTRA HD MEDICAL MONITOR
ADLINK 32" ULTRA HD MEDICAL MONITOR
ADLINK 32" PREMIUM ULTRA HD MEDICAL MONITOR

11.4 | 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 HD MONITORS
FSN 27" HD MEDICAL MONITOR

- *High brightness LED backlight*
- *Rich color calibration*
- *User friendly*
- *Ergonomic design*
- *Medical technologies*

CF-003-037

Ordering no.	Description
CF-003-037	FSN FS-A2702DS 27" HD MEDICAL MONITOR

Technical data

Panel	27" inch TFT LCD (LED)
Active Area	597.89 (H)mm x 336.31 (V)mm
Resolution	1920 x 1080 pixels
Aspect	16:9
Pixel Pitch	0.3114 x 0.3114
Number of colours	Approx. 16.7 million
Contrast ratio	1.500:1 typical
Response time	14 ms (gray to gray)
Viewing angle	R/L 178°, U/D 178°
Contrast ration	1000 : 1
Brightness	800 cd/m2
Inputs	2x HDMI (1.4) 1x DP (1.2), 2x SDI (3G, HD, SD)
Outputs	1 x HDMI (1.4), 2x SDI (3G, HD, SD)
Power supply	AC/DC Adapter (AC 100~240V, DC 24V/6.6A)
Power consumption	110 W
Latency (typical)	2 ms max
Mounting	VESA MIS-D 100 (100 x 100mm)
Standard	IEC 60601-1, IEC 60601-1-2
Dimensions	673(W) x 425(H) x 75.2(D)mm
Weight	8.52 kg, 18.78 lbs. (monitor with cover)

Delivery contains
Monitor, User manual, AC-DC Adapter, AC power cord, HDMI cable, SDI cable, Screw BH M4 x 14

11.2 | 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*

CF-003-025

CF-010-009

Ordering no.	Description
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 0,3114mm
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 Adapter (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	8.7kg

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

11.3 | MEDICAL ULTRA HD MONITORS
ADLINK 27" ULTRA HD MEDICAL MONITOR

- *MDR certified product*
- *27" 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*
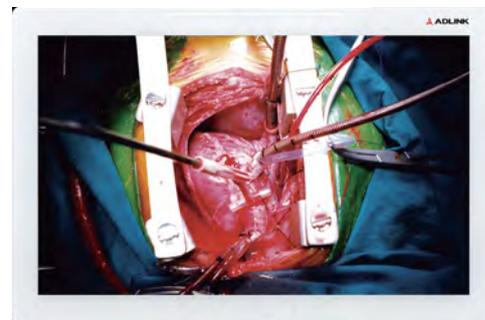
CF-003-034

Ordering no.	Description
CF-003-034	ADLINK ASM27UHB	27" ULTRA-HD MEDICAL MONITOR

Technical data

TFT Panel	27"
Resolution	3840 x 2160 pixels
Colours	1.07 Billion
Pixel Pitch	0.155 x 0.155mm
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	2 x HDMI 2.0, 1 x HDMI 2.0 out, 2 x 3/6/12G-SDI, 2 x 3G-SDI quad operation, 1 x3/6/12G-SDI out, 1 x calibration,1 x USB 2.0 downlink socket B, 1 x 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)

11.3 | MEDICAL ULTRA HD MONITORS
ADLINK 27" ULTRA HD MEDICAL MONITOR

Technical data

Dimensions	673 x 415 x 78mm
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**

11.3 | 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*
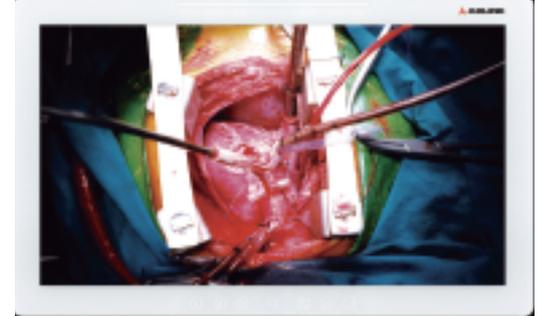
CF-003-035

Ordering no.	Description
CF-003-035	ADLINK ASM32U	31,5" ULTRA-HD MEDICAL MONITOR

Technical data

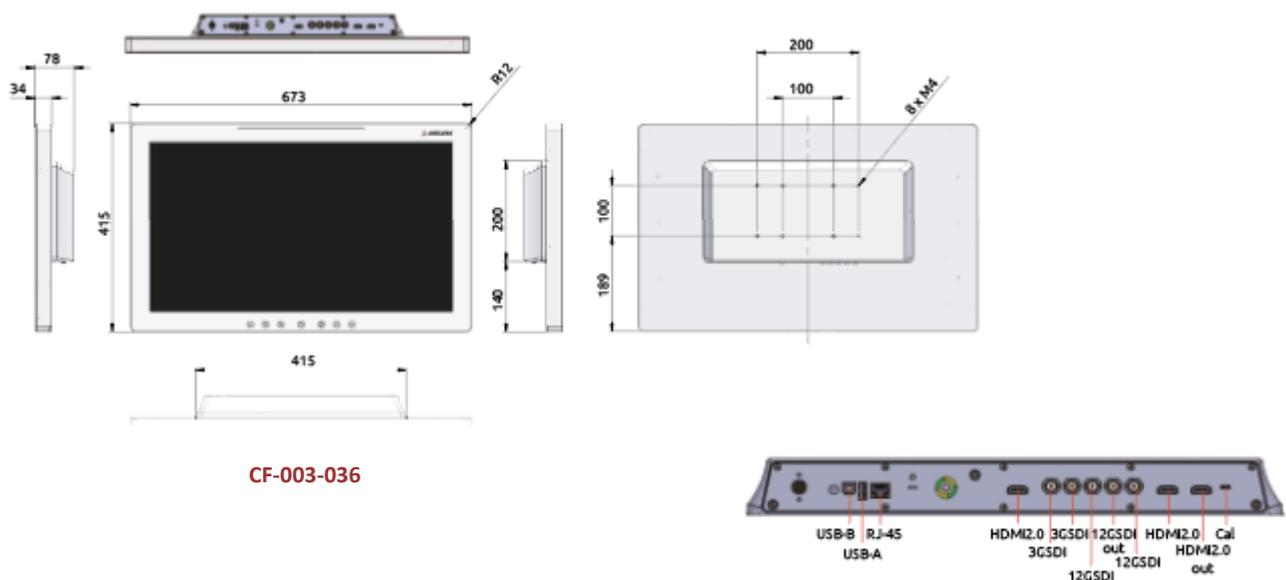|	
TFT Panel	31,5"
Resolution	3840 x 2160 pixels
Colours	1.07 Billion
Pixel Pitch	0.181 x 0.181mm
LCD Contrast Ratio	3000:1
Response Time	9.5 ms
LCD Luminance	800 cd/m2
Viewing Angle V/H	178°/178°
Colour Space	90% NTSC
Input/Output	2 x HDMI 2.0, 1 x HDMI 2.0 out, 2 x 3/6/12G-SDI, 2 x 3G-SDI quad operation, 1 x 3/6/12G-SDI out, 1 x calibration, 1 x USB 2.0 downlink socket B, 1 x 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)

11.3 | MEDICAL ULTRA HD MONITORS
ADLINK 31,5" ULTRA HD MEDICAL MONITOR

Technical data

Dimensions	673 x 415 x 78mm
Weight (approx.)	12.4kg
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

11.3 | 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.	Description
CF-003-036	ADLINK ASM32UHB	32" ULTRA-HD MEDICAL MONITOR

Technical data

TFT Panel	32"
Resolution	3840 x 2160 pixels
Colours	1.07 Billion
Pixel Pitch	0.184 x 0.184mm
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	2 x HDMI 2.0, 1 x HDMI 2.0 out, 2 x 3/6/12G-SDI, 2 x 3G-SDI quad operation, 1 x 3/6/12G-SDI out, 1 x calibration, 1 x USB 2.0 downlink socket B, 1 x 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)

11.3 | MEDICAL ULTRA HD MONITORS
ADLINK 31,5" ULTRA HD MEDICAL MONITOR

Technical data

Dimensions	673 x 415 x 78mm
Weight (approx.)	12.4kg
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-003-036

11.3 | MEDICAL ULTRA HD MONITORS
ADLINK MEDICAL MONITORS COMPARISON

TECHNICAL DATA	ADLINK ASM27UHB	ADLINK ASM32UHB	ADLINK ASM32U
TFT Panel Pixel Pitch LCD Contrast Ratio Response Time LCD Luminance Resolution Colours	27" 0.155 x 0.155mm 1000:1 16 ms 800 cd/m2 90% NTSC 3840 x 2160 px	32" 0.184 x 0.184mm 1350:1 18 ms 700 cd/m2 105% NTSC 3840 x 2160 px	31,5" 0.181 x 0.181mm 3000:1 9.5 ms 400 cd/m2 90% NTSC 3840 x 2160 px
Viewing Angle V/H Colour Space Input/Output	1.07 Billion 178°/178° 2 x HDMI 2.0 1 x HDMI 2.0 out 2 x 3/6/12G-SDI 2 x 3G-SDI quad operation 1 x 3/6/12G-SDI out 1 x calibration 1 x USB 2.0 downlink socket B 1 x 5V/1A, LAN WLAN LAN/RS-232	1.07 Billion 178°/178° 2 x HDMI 2.0 1 x HDMI 2.0 out 2 x 3/6/12G-SDI 2 x 3G-SDI quad operation 1 x 3/6/12G-SDI out 1 x calibration 1 x USB 2.0 downlink socket B 1 x 5V/1A, LAN WLAN LAN/RS-232	1.07 Billion 178°/178° 2 x HDMI 2.0 1 x HDMI 2.0 out 2 x 3/6/12G-SDI 2 x 3G-SDI quad operation 1 x 3/6/12G-SDI out 1 x calibration 1 x USB 2.0 downlink socket B 1 x 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	7 illuminated touch buttons on the front glass with the following functions: On/Of Menue/Enter Up Down Exit, Programmable 1 Programmable 2	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 Colour Space Colour Temperature Gamma Presets Calibration Power	PIP, PIP size (10%,20%,30%,50%), Side-by-Side Native, BT2020, sRGB, Adobe RGB 3200..9600 1.8; 2.0; 2.2; 2.35; 2.6 4 + factory Autocalibration 24 CV (external medical-grade PSU)	PIP, PIP size (10%,20%,30%,50%), Side-by-Side Native, BT2020, sRGB, Adobe RGB 3200..9600 1.8; 2.0; 2.2; 2.35; 2.6 4 + factory Autocalibration 24 CV (external medical-grade PSU)	PIP, PIP size (10%,20%,30%,50%), Side-by-Side Native, BT2020, sRGB, Adobe RGB 3200..9600 1.8; 2.0; 2.2; 2.35; 2.6 4 + factory Autocalibration 24 CV (external medical-grade PSU)

11.4 | 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.	Description
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 Adapter (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 74.2mm (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.

11.4 | MEDICAL 4K ULTRA HD MONITORS
FSN 32" 4K ULTRA HD MEDICAL MONITOR

- *Support HDR for incredible picture quality*
- *Options for 12G-SDi or 10G SPF+ support*
- *Web-based network control system*
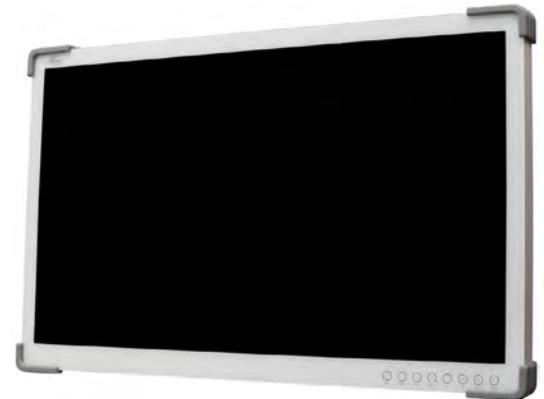
CF-003-028

Ordering no.	Description
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	1.500:1 typical
Active area	708.48(h)mm x 398.82(v)mm
Response Time	20ms
Pixel Pitch	0.1845 x 0.1845
Viewing angle	R/L 178°, U/D 178°
Inputs	2 x HDMI 2.0, 1 x DP 1.2, 2 x SDI (12G)
Outputs	1 x HDMI 2.0, 2 x SDI (12G)
Power supply	AC/DC Adapter (AC 100 V ~ 240 V, DC 24 V 8.3 A)
Power consumption	Maximum 190 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
IP Rating	IP-33- overall
Weight	10.7kg (monitor with cover)	16.5kg (shipping package)
Certifications	ANSI/AAMI ES60601-1 (UL60601-1), CAN/CSA C22.2 No. 60601-1, FCC Class B, EN60601-1, EN-60601-1-2, CE, MDR(EU), 2017/745 Class I, Medical Device

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

11.4 | 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*
- *Not available with standard STEMA trolleys*

CF-003-029

Ordering no.	Description
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

11.4 | 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.	Description
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 Adapter (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	11.8kg

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

11.4 | 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*

*If the monitor has to be mounted directly on a trolley it is only compatible with **CH-001-003***

CF-003-024

Ordering no.	Description
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 Adapter, operating manual, cable: mains (1), DP (1), HDMI (1), BNC (1), DVI-D (1)- **Delivery without stand base**

11.4 | 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.	Description
CF-003-031	**EIZO EX4342	43" 4K ULTRA-HD MEDICAL MONITOR**

Technical data

Panel Type	TFT Color-LCD Panel (IPS)
Backlight	LED
Size	43" / 109.2cm
Native Resolution	3840 x 2160 (16:9 aspect ratio)
Viewable Image Size	941.2 x 529.4mm
Pixel Pitch	0.2451 x 0.2451mm
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	974x567mm
Weight	approx. 17kg
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 Adapter, 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
SONY UP-25MD

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

CF-005-001

Ordering no.	Description
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 gradiation	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.
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	5.7kg
Certificates	CE, UL 60601-1, UL 60950-1, CSA C22.2 No. 601.1

Delivery contains
Printer UP-25MD, paper tray (L size), cleaning cartidge, 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*
- *Wireless printing capability*
- *Automatic feed roller cleaning*
- *Color adjustment and gray balance*

CF-005-011

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

Technical data

Printing method	Dye sublimation thermal printing
Resolution	423 dpi
Colour gradiation	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.
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	5.5kg
Certificates	CE, UL 60601-1, UL 60950-1, CSA C22.2 No. 601.1

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

12.2 | COLOR VIDEO PRINTER
SONY UP-27MD | COLOR VIDEO PRINTER

- *Compact size*
- *Superb print quality and color at 423 dpi resolution*
- *Useful front operation and user-friendly LCD display*
- *Split-image prints*
- *Automatic feed roller cleaning*
- *Color adjustment and gray balance*
- *SDI compatibility*
- *Large front LCD*

CF-005-010

Ordering no.	Description
CF-005-010	SONY UP-27MD	COLOR VIDEO PRINTER

Technical data

Printing method	Dye sublimation thermal printing
Resolution	423 dpi
Colour gradiation	256 gradations (8 bit) for cyan, magenta and yellow
Picture elements	UPC-21L: 2,132 x 1,600 dots
	UPC-21S: 1,600 x 1,260 dots
Picture area	UPC-21L: 127.9 x 96.0mm (5 1/8 x 3 3/4 inches)
	UPC-21S: 96.0 x 75.6mm (3 3/4 x 3 inches)
Print speed	UP-21L: 29 sec., UP-21S: 19 sec.
Paper capacity	Size L: max. 50 sheets, size S: max 80 sheets
Interface	SDI IN: BNC (x1) 3G/HD/SD-SDI
	SDI OUT: BNC (x1) 3G/HD/SD-SDI
Control connectors	REMOTE: Stereo mini jack (×1) for optional FS-24 Foot Switch
	RS-232C (Computer control interface): D-sub 9-pin connector (×1)
Power supply	100 - 240 VAC, 50/60 Hz
Dimensions	212 x 98 x 398mm (w x h x d)
Weight	5.7kg
Certificates	CE, UL 60601-1, UL 60950-1, CSA C22.2 No. 601.1

Delivery contains
Printer UP-27MD, paper tray (L size), cleaning cartidge, operating manual (cd rom), 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.	Description
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 dpi
Colour gradiation	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	7kg
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
STEMA TROLLEY 1 + 2

- *Individual arrangement*
- *Adjustable shelfs*
- *Safe placement of different units*
- *Easy moving through special roles*
- *Only for screens with a maximum of 32 inches*

CH-001-001 | CH-001-002

Ordering no.	Description
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	64kg (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

STEMA

13.1 | TROLLEYS
STEMA TROLLEY 3 + 4

- *Individual arrangement*
- *Adjustable shelfs*
- *Safe placement of different units*
- *Easy moving through special roles*
- *Only for screens with a maximum of 32 inches*

CH-001-004

CH-001-005

Ordering no.	Description
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	48kg (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 handel (1), double wheels (4)- 2 of them lockable

13.1 | TROLLEYS
STEMA TROLLEY FOR 55`` MONITORS

- *4 Fittings*
- *Safe placement of different units*
- *Easy moving through special roles*
- *With push handle and winding aid for cables*

Ordering no.	Description
CH-001-003	**STEMA TROLLEY**

Technical data	
Surface	Basic colour RAL 7035 (light grey), decor colour RAL 5015 (sky blue), decor colour RAL 1003 (signal yellow),powder coated
Dimension trolley	153.6 x 61.0 x 62.0cm (h x w x d)
Dimension racks	45.0 x 40.0cm (w x d)
Block of drawers	45.0 x 40.0cm (w x d) Interior: 34.0cm x 24.0cm
Weight	50kg
Condition on delivery	Disassembled
Addition information	**For Monitor: CF-003-024**

Delivery contains (CH-001-003)
Basic unit, rack without handle (3), drawer (1), double wheels (4) lockable, Push handle, winding aid for cable

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*
- *Only for screens with a maximum of 32 inches*

CH-001-011

Ordering no.	Description
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	40.0 x 36.0 x 2.0cm (l x w x h)
Weight	80kg (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.	Description
CH-010-012	Endoscope holder, single, for flexible scopes, mounting in the vertical profile

Ordering no.	Description
CH-010-013	Endoscope holder, single, for flexible scopes, mounting at the rack

Ordering no.	Description
CH-010-014	Endoscope holder, double, for flexible scopes, mounting in the vertical profile

13.2 | TROLLEYS ACCESSORIES
CAMERA HOLDER

Ordering no.	Description
CH-010-009	Camera head fixiation device

Ordering no.	Description
CH-010-001	Camera head holding device

Ordering no.	Description
CH-010-002	Camera head holding device with fixation pin

13.2 | TROLLEYS ACCESSORIES
MONITOR HOLDER

Ordering no.	Description
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.	Description
CH-010-005	Medical monitor support arm

13.2 | TROLLEYS ACCESSORIES
GAS BOTTLE/DRIP HOLDER

Ordering no.	Description
CH-010-011	Drip bowl

Ordering no.	Description
CH-010-016	Gas bottle holder, for gas bottles with 3/5/10 liters

Ordering no.	Description
CH-010-017	Gas bottle holder, for gas bottles with 20 liters

13.2 | TROLLEYS ACCESSORIES
IV POLE / STANDARD RUNNER

Ordering no.	Description
CH-010-018	Stand for infusion bottle, one hand use

Ordering no.	Description
CH-010-019	Stand for infusion bottle

![STEMA logo]

13.2 | TROLLEYS ACCESSORIES
TRANSFORMER

Ordering no.	Description
CH-010-022	Transformer, 660 V

13.2 | TROLLEYS ACCESSORIES
SOCKET STRIP

Ordering no.	Description
CH-010-021	6-way socket strip with 5m main cable

13.2 | TROLLEYS ACCESSORIES
EQUIPOTENTIAL BONDING POAG

Ordering no.	Description
CH-010-029	Plate with 9 equipotential bonding connectors

Ordering no.	Description
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 key laparoscopy | CG-001-031
13. Please select an additional license key without extra charge on

STEMA SOLUTION 1 CMOS HIGH

TROLLEY

- ❶ Trolley | CH-001-002
- ❷ Camera holding device | CH-010-001
- ❸ Gas bottle holder | CH-010-016
- ❹ Holder for flat screen | CH-010-024
- ❺ Socket strip | CH-010-021

MONITOR

- ❻ FSN FM-E2701DG 27" 4K | CF-003-033

CAMERA

- ❼ STEMA PRO 2S | CA-001-040
- ❽ Camera head FULL HD Zoom| CA-001-041

LIGHT SOURCE

- ❾ STEMA LED 2 | CB-005-006

INSUFFLATOR

- ❿ STEMA FLOW 20-H | CC-001-012

SUCTION IRRIGATION PUMP

- ⑪ STEMA PRO 2S | CG-001-030
- ⑫ License key laparoscopy | CG-001-031
- ⑬ Please select an additional license key without extra charge on p.56

STEMA SOLUTION 1 CMOS ECO

TROLLEY

❶ Trolley | CH-001-002
❷ Camera holding device | CH-010-001
❸ Gas bottle holder | CH-010-016
❹ Holder for flat screen | CH-010-024
❺ Socket strip | CH-010-021

MONITOR

❻ SONY LMD-2735MD 27" | CF-003-025

CAMERA

❼ STEMA PRO 1 CAPTURE | CA-001-014
❽ TV Adapter HD Zoom | CD-001-037

LIGHT SOURCE

❾ STEMA LED 2 | CB-005-007

INSUFFLATOR

❿ STEMA FLOW 20-H | CC-001-012

SUCTION IRRIGATION PUMP

⓫ STEMA PRO 2S | CG-001-030
⓬ License key laparoscopy | CG-001-031
⓭ Please select an additional license key without extra charge on

STEMA

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