



#### MADE IN GERMANY



## VIRON 1 full HD camera system





#### Image quality meets ergonomics

VIRON 1 does not compromise in image quality by providing full HD resolution via the inbuilt CMOS camera sensor and maintains a light weight of the camera head at the same time.

#### Plug & Play

Seven surgery presets help to quickly adjust camera settings according to your needs.

#### Camera Control Unit

#### Integrated full HD recorder

The camera control unit comes with an integrated full HD recording feature to capture images and videos on an external usb device.

#### VesMax mode

Digital color enhancement mode for best contrast visualization

#### Multiple video outputs

The video image can be distributed in different directions at the same time e.g. for visualization on multiple monitors.

#### Camera head

Clear visualization of the surgical image by full HD CMOS technology.

Lightweight and ergonomic design.

Select presets and control the recorder via three programmable camera head buttons.

## LED 610 light source



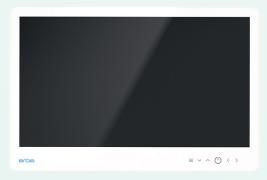
Powerful light source enables impeccable visibility of anatomic structures during surgical conditions.

- Light cable detection to avoid unintentional exposure
- Remote on/off control from Erbe camera systems

#### Fibre optic cables

- Fused cable design for optimal light transmission and heat resistance
- Available in 3.5 and 4.8 mm to perfectly suit Erbe endoscopes and light sources

#### Full HD monitor



Medical grade monitors for demanding use in the operating room.

- True color images
- · Double side anti reflection coating to reduce glare
- · Wipeable surfaces for hygienic use

#### CO<sub>2</sub> gas insufflator



- · Touch screen display for easy operation
- Prevention of sudden cavity loss by high flow rate and monitoring of CO<sub>2</sub> gas supply
- Reduced cross-contamination risk by external exflation valve
- · Internal gas preheating system
- Specific setting for bariatric surgery (set pressure up to 25 mmHg)

#### VARIOFLOW multiuse pump



- Customizeable through license keys
- Touch screen display for easy operation
- For distension, fluid aspiration and irrigation of body cavities
- Monitoring of fluid deficit in hysteroscopy, cystoscopy and laparoscopy
- · Wireless foot switch operation

#### Endoscopes



- Sapphire glass tip for high scratch resistance
- Three tube design for optimized sturdiness
- Laser welded joints

## Components and accessories

VIRON 1 camera system	
10800-800	VIRON 1 camera control unit and camera head, Full HD, with coupler
10800-002	VIRON 1 camera control unit, Full HD
10801-002	VIRON 1 camera head, Full HD
Accessories	
20800-001	Camera coupler f=18 mm
20800-002	Camera coupler f=20 mm
20800-003	Camera coupler f=22 mm
20800-006	Camera coupler f=15-25 mm, zoom
20800-007	Camera coupler f=15-35 mm, vario zoom
20800-009	Camera coupler f=18 mm, 90°, angled
LED 610 light source	
10820-000	LED 610 light source, cold light
Accessories	
20820-000	Fiberoptic cable, $\emptyset$ 3.5 mm, length 3 m, high temperature resistant
20821-000	Fiberoptic cable, Ø 4.8 mm, length 3 m, high temperature resistant
Full HD monitors	
10850-000	Medical monitor, 21" HD
10850-001	Medical monitor, 27" HD
10850-002	Medical monitor, 32" HD
CO <sub>2</sub> gas insufflator	
10830-003	CO <sub>2</sub> gas insufflator 45I/min, with integrated gas preheater
Accessories	
20830-013	Tube for insufflation with integrated filter
20830-014	Tube for insufflation
20830-015	Hygiene filter for CO <sub>2</sub> gas insufflator
VARIOFLOW multiuse pump	
10840-002	VARIOFLOW multiuse pump, interdisciplinary suction/irrigation pump
Accessories	
20840-003	Foot switch for VARIOFLOW multiuse pump
20840-004	Balance unit for VARIOFLOW multiuse pump
20840-014	Licence key Urology
20840-015	Licence key Hysteroscopy

## Endoscopes

Laparoscopy	
20860-196	Laparoscope, Ø 5.5 mm, 0°, HD, working length 300 mm
20860-197	Laparoscope, Ø 5,5 mm, 30°, HD, working length 300 mm
20860-198	Laparoscope, Ø 5.5 mm, 45°, HD, working length 300 mm
20860-199	Laparoscope, Ø 10 mm, 0°, HD, working length 330 mm
20860-200	Laparoscope, Ø 10 mm, 30°, HD, working length 330 mm
20860-201	Laparoscope, Ø 10 mm, 45°, HD, working length 330 mm

Hysteroscopy & Resection	
20862-000	Endoscope for hysteroscope, Ø 4 mm, 0°, HD, working length 300 mm
20862-001	Endoscope for hysteroscope, Ø 4 mm, 12°, HD, working length 300 mm
20862-002	Endoscope for hysteroscope, Ø 4 mm, 30°, HD, working length 300 mm
20862-003	Endoscope for hysteroscope, Ø 4 mm, 70°, HD, working length 300 mm
20862-004	Endoscope for hysteroscope, Ø 2.9 mm, 0°, HD, working length 300 mm
20862-005	Endoscope for hysteroscope, Ø 2.9 mm, 12°, HD, working length 300 mm
20862-006	Endoscope for hysteroscope, Ø 2.9 mm, 30°, HD, working length 300 mm

Cystoscopy & Resection	
20864-000	Endoscope for cystoscope, Ø 4 mm, 0°, HD, working length 300 mm
20864-001	Endoscope for cystoscope, Ø 4 mm, 12°, HD, working length 300 mm
20864-002	Endoscope for cystoscope, Ø 4 mm, 30°, HD, working length 300 mm
20864-003	Endoscope for cystoscope, Ø 4 mm, 70°, HD, working length 300 mm



# Create a comprehensive solution for resection!

Combine the VIRON Imaging system with our VIO® 3 electrosurgery unit and resectoscopes.





## Technical data

N 1 camera system	
Video output	2x DVI-D / 2 x S-Video / 2 x Composite
Resolution	Full HD 1920x1080 pixel
Aspect ratio	16 : 9
USB-Port (front/record)	min. USB 2.0 (FAT32)
Remote output	1x 3.5 mm stereo jack connector
	4.5 kg
Weight	4.5 ку 300 x 74 x 365 mm
Dimensions (W x H xD)	
Image sensor	1/3" CMOS
Weight camera head	110 g (without cable and plug)
Cable length camera head	3 m
Main frequency	50/60 Hz
Main voltage	100 - 240 V
Degree of protection	IP20
Power consumption	24 - 30 VA
Classification (applied part)	Class I, Type BF
0 610 light source	
Color temperature	6000 K
Dimming	0 - 100% / in 10 steps
Lamp Lifetime	> 50,000 hours
Dimensions (W x H xD)	300 x 74 x 365 mm
Weight	5.5 kg
Main frequency	50/60 Hz
Main voltage	100 - 240 V

Color temperature	6000 K
Dimming	0 - 100% / in 10 steps
Lamp Lifetime	> 50,000 hours
Dimensions (W x H xD)	300 x 74 x 365 mm
Weight	5.5 kg
Main frequency	50/60 Hz
Main voltage	100 - 240 V
Degree of protection	IP20
Power consumption	150 W
Classification (applied part)	Class I, Type BF

Full HD monitors	
Sizes available	21" / 27" / 32"
Resolution	Full HD 1920x1080 pixel
Aspect ratio	16 : 9
Panel-Technologie	LED Backlight
Video input	DVI-D
Viewing angle	178°/178°
Vesa mount	Vesa 100 x 100
Brightness	250 cd/m²
Contrast	1000 : 1
Main frequency	50/60 Hz
Main voltage	100-240 V
Power consumption	110 W

CO <sub>2</sub> gas insufflator	
Max. flow range	45 I/min high flow mode 2 I/min low flow mode
Pressure range	0 - 25 mmHg
Flow range	Automatic
Dimensions (W x H xD)	310 x 136 x 385 mm
Weight	8.0 kg
Pressure range CO <sub>2</sub> gas bottle	10 - 60 bar
Pressure range central gas supply	3 - 5 bar
Main frequency	50/60 Hz
Main voltage	100 - 230 V
Classification (applied part)	Туре СҒ

VARIOFLOW multiuse pump	
Pressure range	Hysteroscopy 10 - 200 mmHg Cystoscopy 10 - 150 mmHg
Flow range	Hysteroscopy 0.1 - 0.5 I/min Cystoscopy 0.1 - 1.0 I/min Laparoscopy 0.1 - 2.2 I/min
Dimensions (W x H xD)	360 x 133 x 354 mm
Weight	8.2 kg
Main frequency	50/60 Hz
Main voltage	100 - 240 V
Degree of protection	IP31
Classification (applied part)	Class I, Type BF

Fibre optic cables	
Diameter	Ø 3.5 mm, Ø 4.8 mm
Length	3 m
Autoclavable	Yes

## Erbe Elektromedizin GmbH Since 1851 – a strong and innovative group of companies.

As a family-owned and operated business, Erbe develops, manufactures, and markets systems for professional use in various medical disciplines all over the world.

Since the company's foundation, Erbe has continuously reshaped and adapted its business to an ever-changing reality in several key disciplines such as gastroenterology, general surgery, gynecology, pulmonology and urology. The portfolio comprises devices and instruments for electrosurgery, vessel sealing, plasma surgery, cryosurgery, hydrosurgery and imaging.

Today, the international group of companies is represented in 110 countries around the world with sales and service units, sales and production units and an international distributor network.

Close cooperation with renowned physicians from medical faculties and hospitals is a key success factor that helps Erbe to successfully drive medical development forward.

### The power of Imaging

Our imaging platform will help improve diagnostic capabilities and intervention accuracy. Further enhancement function with artificial intelligence (AI) and augmented reality will support in the future.

With our all-in-one comprehensive solution including electrosurgical units, imaging systems and dedicated instruments we support physicians in focusing on advanced procedures and optimizing patient outcome.

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