

XENON light source

Flash X100

Flash X180

Flash X300



optional:

- life time indicator
- turret adapter
- halogen spare lamp

- low noise
- low heat conduction
- motor-driven light control
- daylight quality

XENON light source

Flash X100

Flash X180

Flash X300

The Flash X100 / Flash X180 / Flash X300 offers the professional user the most advanced pure day light sources (5600°K colour temperature). It contains an improved high intensity and low heat conductive xenon lamp.

LAMP

The built-in lamp is a specially developed xenon gas discharge lamp, filled with non-polluting xenon gas. The lamp design is optimized for endoscopic applications. Its design features a high efficiency reflector (and lens-system X300) which focusses light more effectively on the fiberoptic light guide. When the lifetime of the lamp has expired, the lamp is simply replaced by a new one within minutes - no tools and no adjustments are required.

LIGHT CONTROL

The output intensity is controlled steplessly via a motor-driven, mechanical diaphragm. This ensures a constant colour temperature. The output intensity is set by push buttons.

CONNECTION

An interchangeable adapter system for all types of endoscopes, fibrescopes and microscopes ensures that the light sources can be operated in all applications. For more flexibility the light source is available with a TURRETadapter system. The TURRET-adapter contains four adapters (Storz / Wolf /Olympus / ACMI) in a simple turning mechanism.

QUALITY

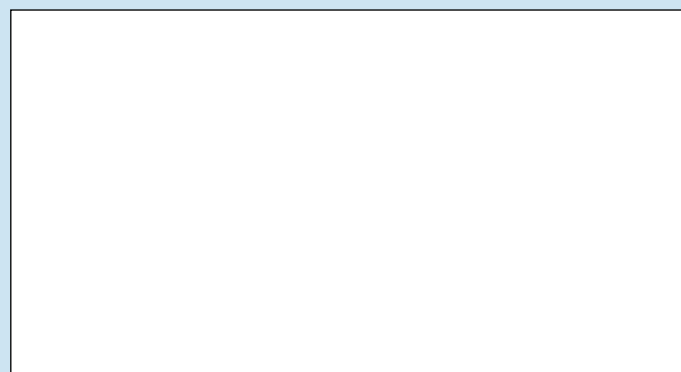
The light sources fulfill all essential safety demands. The rugged desk housing and the flat, waterproof touch control panel withstands all daily used requirements. For highest safety requirements, we offer the Flash X series also with built-in 150 Watt Halogen lamp as emergency illumination. In case of lamp defects during operation the emergency lamp is automatically switched on.

Technical Data

Type	Flash X100 Flash X180 Flash X300
Power supply	110/115 VAC and 230/240 VAC, switchable
Dimensions (WxHxD)	355 x 110 x 347 mm
Weight	9,5 kg 11,5 kg 13,5 kg
Power consumption	185 W 280 W 370 W
Light guide adapter	interchangeable
Video input	1 x VBS, 1 x S-VHS (Y/C)
Lamp	xenon short arc gas discharge lamp, elliptical cold light reflector Class / Type 1 / BF
Manufactured and tested acc.	IEC 601-1 / CE EN 60601-1 93/42 ECC



info@baholzer.de
www.baholzer.de



Design and technical details are subject to change without notice.

LED light source



optional:

- life time indicator
- turret adapter
- halogen spare lamp

- low noise
- low heat conduction
- motor-driven light control
- daylight quality

LED light source

Technical Data

Lamp	• Daylight quality, 6000-6500 K • Lifetime: > 20.000 hr
Light guide connection	• Storz, Wolf adapter
System	• Power supply: 100/240 VAC, 50-60 Hz • Fuses: 2 Fine fuses, 5x20 mm, delay 6,3 AT (I=1500A) • Power consumption: 90 VA
Video In (opt.)	• 1x Video (automatic Version only)
Standard	• Protection class: I • Application part: Type BF • IEC 601-1, EN 60601-1; classification acc. 93/42/EEC: I
Dimensions	• (WxHxD): 355 x 103 x 253 mm • Weight: 4,9 kg
Delivery contains	• Light source, mains cable, user manual, BNC cable (optional)

automatic
light intensity control

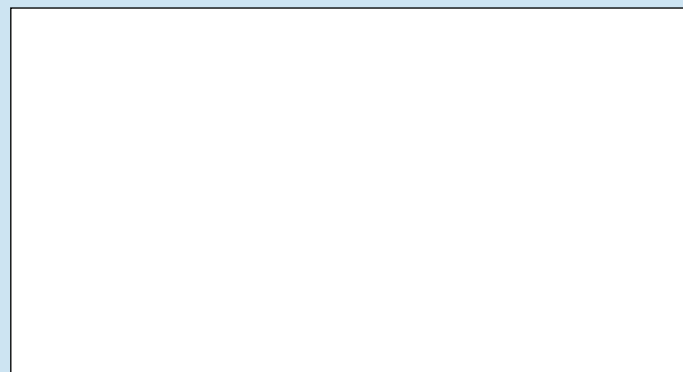


intensity displayed
as clear value



baholzer Endoskopie Systeme
GmbH & Co.KG
Neckartal 100
D-78628 Rottweil
Germany

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Design and technical details are subject to change without notice.

COLD LIGHT CABLE / ACCESSORIES

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Fax +49 (0) 741 / 942 96 083
E-Mail: info@baholzer.de
Internet: www.baholzer.de



2HT4 COLD LIGHT CABLE – 300 Watt Xenon + LED-Light Sources, autoclavable



- High Heat resistance, up to 350°C
- Fused Fibres
- Heat Protection rod made of Glas
- Cover sheath in various colors
- First class fibre optic
- High torsion + lateral pressure resistance

Ø	Länge	Artikel-Nr.	Mantelfarbe
3,5 mm	1800 mm	25.0179.00	Grün(GN), Orange(OR), Grau(GR)
	2300 mm	25.0180.00	Grün(GN), Orange(OR), Grau(GR)
	3000 mm	25.0181.00	Grün(GN), Orange(OR), Grau(GR)
4,8 mm	1800 mm	25.0109.00	Grün(GN), Orange(OR), Grau(GR)
	2300 mm	25.0100.00	Grün(GN), Orange(OR), Grau(GR)
	3000 mm	25.0102.00	Grün(GN), Orange(OR), Grau(GR)

z.B. 2HT4 Kaltlichtkabel in Ø 4,8 mm, Länge 3000 mm, in Grün, = **25.0102.00GN**

Wärmeschutzstab zur Lichtquelle

Storz	25.0101.00
Olympus	25.0110.00
Wolf	25.0111.00

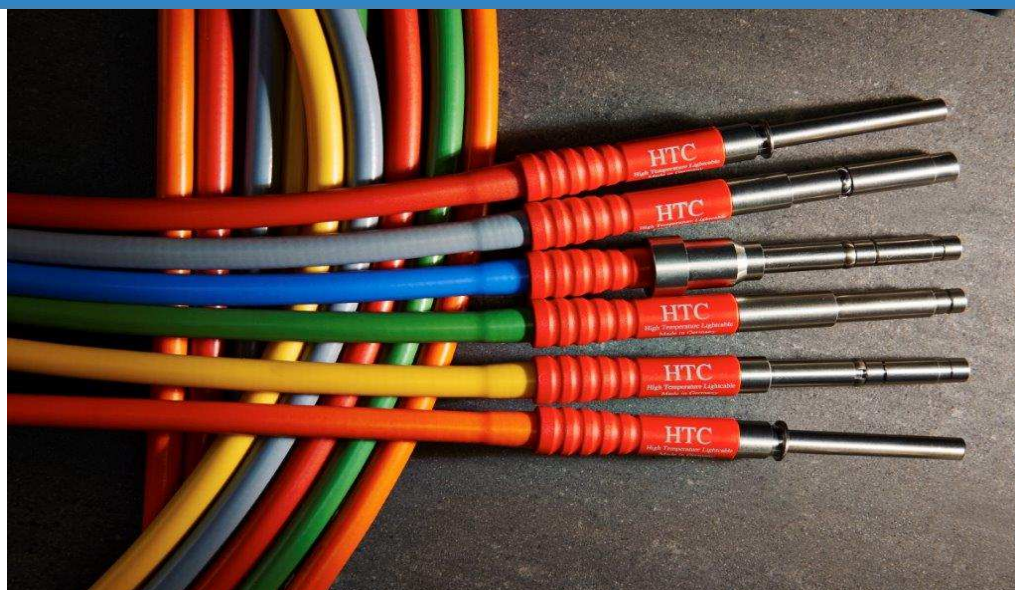
Adapter zur Optik

Storz	25.0084.00
Olympus	25.0085.00
Wolf	25.0086.00

***Adapter für andere Lichtquellen, Mantelfarben und Kaltlichtkabel ohne Metallummantelung auf Anfrage.**

COLD LIGHT CABLE / ACCESSORIES

Fon +49 (0) 741/ 942 55 699
Fax +49 (0) 741 / 942 96 083
E-Mail: info@baholzer.de
Internet: www.baholzer.de



Standard COLD LIGHT CABLE – for Halogen-Licht sources, autoclavable,



- Heat resistance up to 200°C
- Fused Fibres
- Low light
- Cover sheath in various
- First class fibre optic
- High torsion + lateral pressure resistance

Ø	Length	Code-No.	Color Coating
3,5 mm	1800 mm	25.0075.00	Grau(GR)*
	2300 mm	25.0076.00	Grau(GR)*
	3000 mm	25.0077.00	Grau(GR)*
4,8 mm	1800 mm	25.0078.00	Grau(GR)*
	2300 mm	25.0079.00	Grün(GN), Orange(OR), Grau(GR)
	3000 mm	25.0080.00	Grau(GR)*

i.e. Standard Cold Light cable Ø 4,8 mm, length 2300 mm, Orange = **25.0079.00OR**

Adapter to Light Source

Storz	25.0081.00
Olympus	25.0082.00
Wolf	25.0083.00

Adapter to Optik / Light Post

Storz	25.0084.00
Olympus	25.0085.00
Wolf	25.0086.00

***Adapter for other Light Sources, Cover sheaths in other colors, and cable without metall cover on request.**

baholzer Endoskopie-Systeme
Neckartal 100
78628 Rottweil
Germany



DIGIT C-50 / 1 Chip 1/3" / Art. 25-1010-00

Endoskopie Kamera für den niedergelassenen Arzt in kompakter Ausführung.

Funktionen:

Weißabgleich, Window Funktion (Meßfeldfenster), Boost Funktion (Helligkeit anheben), Anti-Moiree-Filter (für Faserendoskope)

TV-System: PAL / NTSC

(bitte bei der Bestellung angeben ob NTSC Version Art# **25-1010-00NT**)

Kamerakopf / Camera head

Endoscopic Camera for resident physicians in a compact design.

Functions:

White balance
Window function, Boost,
Anti-Moiree-Filter

TV-System: PAL / NTSC

(please note at the order if you wish NTSC version Art# **25-1010-01**)



K2

DIGIT C-50 / 1 Chip 1/3" / Art. 25-1010-00

TECHNISCHE DATEN:

Kamerakopf:

Bildverhältnis 4:3
Bildsensor: 1/3" CCD
Einlegbar in Desinfektionsmittel (mit beigestellter Schutzkappe)

System:

Netz: 100/240 VAC, 50-60 HZ
2 Feinsicherungen, 5x20 mm,
Ansprechverzögerung 3,5 AH
Leistungsaufnahme: 15 W
Bildauflösung:
PAL 752 x 582 / NTSC 768 x 494
TV Auflösung: >470 Linien
Empfindlichkeit: < 1 Lux (1/1.4)
Automatischer Weisabgleich
Shutter Geschwindigkeit:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Videoausgänge:

2 x Video (BNC)
1 x S-Video

Normen:

Schutzklasse 1, Type BF,
IEC 601-1, EN 60601-1, Klassifizierung nach
93/42/EWG :1

Größe +Gewicht Steuereinheit:

(TxHxB): 176 x 72 x 202 mm; 1,6 kg

Lieferumfang:

Steuereinheit, Kamera Kopf mit 3 m Kabel,
Stromkabel, Y/C Kabel, BNC Kabel,
Bedienungsanleitung

TECHNICAL DATA:

Camera Head:

Aspect ratio: 4:3
Image sensor: 1/3" CCD
Soakable (using attached cap)

System:

Power Supply: 100/240 VAC, 50-60 HZ
Fuse: 2 Fine Fuses, 5 x20mm, delay acting
3,5 AH (I=1500A)
Power Consumption: 15 W
Image resolution:
PAL 752 x 582 / NTSC 768 x 494
TV resolution: >470 lines
Sensitivity: < 1 lux (1/1.4)
White balance automatically, with data
hold
Shutter Speed:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Video out terminal:

1 x Video (BNC)
1 x S-Video

Standards:

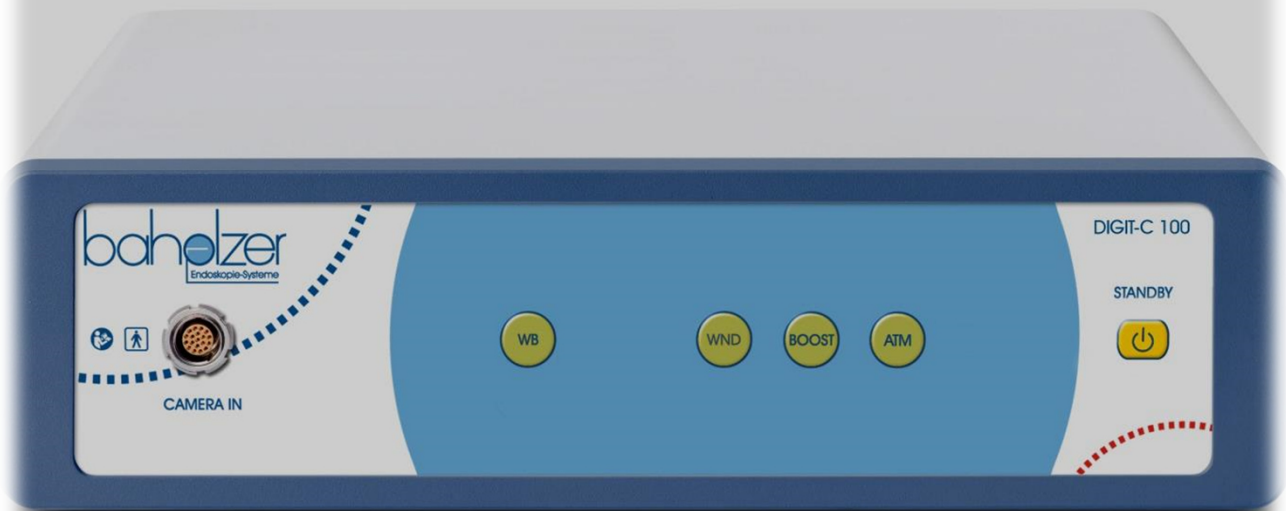
Protection class: I Type BF,
IEC 601-1, EN 60601-1, classification acc.
93/42/EEC :I

Dimensions + Weigth Control Unit:

(WxHxD): 176 x 72 x 202; 1,6 kg

Scope of Delivery:

CCU, camera head with 3m cable, mains
cable, Y/C cable, BNC cable, User manual



DIGIT C-100 / 1 Chip 1/3" / Art. 25-1020-00

Einstieg in den OP, Kamera mit natürlicher Farbwiedergabe und Basisfunktionen

Funktionen:

Weißabgleich, Window Funktion (Meßfeldfenster), Boost Funktion (Helligkeit anheben), Anti-Moiree-Filter (für Faserendoskope)

Optionen:

Standbild, Steuerung über Fußschalter
Fernsteuerung via Fußschalter mit programmierbaren Tasten

NTSC Version Art# **25-1020-01)**

Kamerakopf / Camera head

Designed for Operating Room, Camera with natural colour reproduction.

Functions:

White balance
Window function, Boost,
Anti-Moiree-Filter

Options:

Freeze function, Freeze via footswitch
Remote footswitch with programmable push buttons

NTSC version Cat# **25-1020-01)**



K4

DIGIT C-100 / 1 Chip 1/3" / Art. 25-1020-00

TECHNISCHE DATEN:

Kamerakopf:

Bildverhältnis 4:3
Bildsensor: 1/3" CCD
Einlegbar in Desinfektionsmittel (mit beigestellter Schutzkappe)

System:

Netz: 100/240 VAC, 50-60 HZ
2 Feinsicherungen, 5x20 mm,
Ansprechverzögerung 3,5 AH
Leistungsaufnahme: 20 W
Bildauflösung:
PAL 752 x 582 / NTSC 768 x 494
TV Auflösung: >470 Linien
Empfindlichkeit: < 1 Lux (1/1.4)
Automatischer Weisabgleich
Shutter Geschwindigkeit:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Videoausgänge:

2 x Video (BNC)
1 x S-Video

Normen:

Schutzklasse 1, Type BF,
IEC 601-1, EN 60601-1, Klassifizierung nach
93/42/EWG :1

Größe +Gewicht Steuereinheit:

(TxHxB): 355 x 103 x 253 mm; 4,1 kg

Lieferumfang:

Steuereinheit, Kamera Kopf mit 3 m Kabel,
Stromkabel, Y/C Kabel, BNC Kabel,
Bedienungsanleitung

TECHNICAL DATA:

Camera Head:

Aspect ratio: 4:3
Image sensor: 1/3" CCD
Soakable (using attached cap)

System:

Power Supply: 100/240 VAC, 50-60 HZ
Fuse: 2 Fine Fuses, 5 x20mm, delay acting
3,5 AH (I=1500A)
Power Consumption: 20 W
Image resolution:
PAL 752 x 582 / NTSC 768 x 494
TV resolution: >470 lines
Sensitivity: < 1 lux (1/1.4)
White balance automatically, with data
hold
Shutter Speed:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Video out terminal:

1 x Video (BNC)
1 x S-Video

Standards:

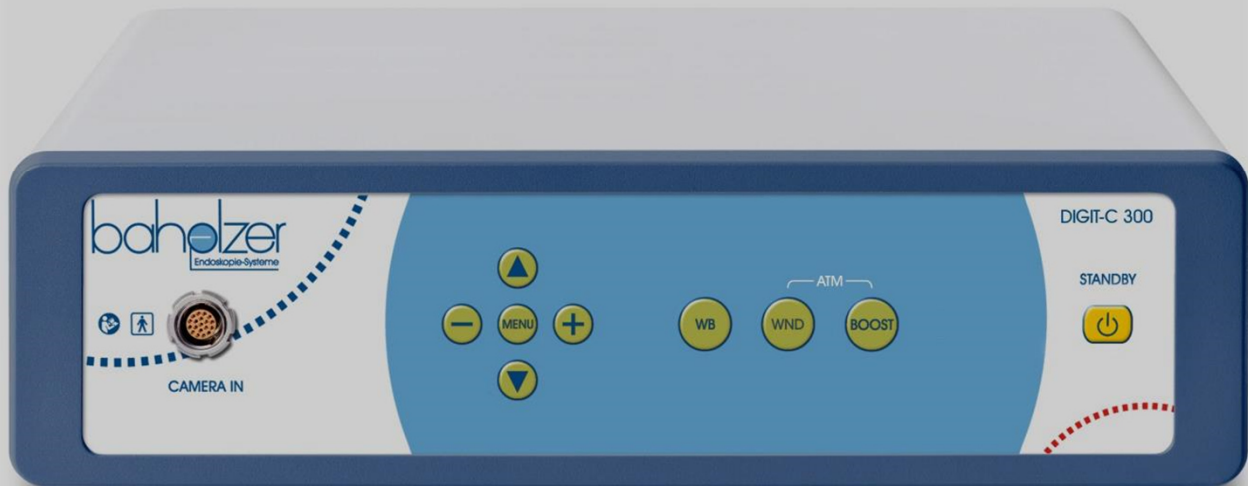
Protection class: I Type BF,
IEC 601-1, EN 60601-1, classification acc.
93/42/EEC :I

Dimensions + Weigth Control Unit:

(WxHxD): 355 x 103 x 253; 4,1kg

Scope of Delivery:

CCU, camera head with 3m cable, mains
cable, Y/C cable, BNC cable, User manual



DIGIT C-300 / 1 Chip 1/3" / Art. 25-1030-00

Funktionen:

Weißabgleich, Window Funktion (Meßfeldfenster), Boost Funktion (Helligkeit anheben), Mehrsprachiges Bildschirmmenü
Digitales Zoom , 2,5 Fach
Kamerasteuerung mit Tastatur
Zeichengenerator möglich
Kamerakopf ohne Steuerknöpfe

Optionen:

Standbild, Steuerung über Fußschalter
Fernsteuerung via Kamerakopf und / oder Fußschalter mit programmierbaren Tasten,

Kamerakopf / Camera head

Functions:

White balance, Window function, Boost, Anti-Moiree-Filter
Multilingual on-screen-menu
Digital zoom, up to 2,5
Camera control with keyboard
Character generator possible
Camera head without push buttons

Options:

Freeze function, freeze via footswitch
Remote camera head and/or footswitch with programmable push buttons

NTSC version Cat.# **25-0323-01)**



K6

DIGIT C-300 / 1 Chip 1/3" / Art. 25-1030-00

TECHNISCHE DATEN:

Kamerakopf:

Bildverhältnis 4:3
Bildsensor: 1/3" CCD
Einlegbar in Desinfektionsmittel (mit beigetellter Schutzkappe)

System:

Netz: 100/240 VAC, 50-60 HZ
2 Feinsicherungen, 5x20 mm,
Ansprechverzögerung 3,5 AH
Leistungsaufnahme: 20 W
Bildauflösung:
PAL 752 x 582 / NTSC 768 x 494
TV Auflösung: >470 Linien
Empfindlichkeit: < 1 Lux (1/1.4)
Automatischer Weisabgleich
Shutter Geschwindigkeit:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Videoausgänge:

2 x Video, 2 x S-Video, 1x Y-Pb-Pr
(Component), 1 x SDI, 1x USB 2.0

Normen:

Schutzklasse 1, Type BF,
IEC 601-1, EN 60601-1, Klassifizierung nach
93/42/EWG :1

Größe +Gewicht Steuereinheit:

(TxHxB): 355 x 103 x 253 mm; 4,4 kg

Lieferumfang:

Steuereinheit, Kamera Kopf mit 3 m Kabel,
Stromkabel, Y/C Kabel, BNC Kabel, DVI
Kabel, Bedienungsanleitung

Optional: Kamerakopf mit
programmierbaren Tasten:,
Gewicht: 105 g, d=34/ l=74mm

TECHNICAL DATA:

Camera Head:

Aspect ratio: 4:3
Image sensor: 1/3" CCD
Soakable (using attached cap)

System:

Power Supply: 100/240 VAC, 50-60 HZ
Fuse: 2 Fine Fuses, 5 x20mm, delay acting
3,5 AH (I=1500A)
Power Consumption: 20 W
Image resolution:
PAL 752 x 582 / NTSC 768 x 494
TV resolution: >470 lines
Sensitivity: < 1 lux (1/1.4)
White balance automatically, with data
hold
Shutter Speed:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Video out terminal:

2 x Video, 2 x S-Video, 1x Y-Pb-Pr
(Component), 1 x SDI, 1x USB 2.0

Standards:

Protection class: I Type BF,
IEC 601-1, EN 60601-1, classification acc.
93/42/EEC :I

Dimensions + Weigth Control Unit:

(WxHxD): 355 x 103 x 253; 4,4 kg

Scope of Delivery:

CCU, camera head with 3m cable, mains
cable, Y/C cable, BNC cable, DVI cable,
User manual



Camera head with
programmable push
buttons, optional



DIGIT C-350 / 1 Chip 1/3" / Art. 25-1040-00

Funktionen:

Weißabgleich, Window Funktion (Meßfeldfenster), Boost Funktion (Helligkeit anheben), Mehrsprachiges Bildschirmmenü
Digitales Zoom , 2,5 Fach
Kammersteuerung mit Tastatur
Zeichengenerator
Fernsteuerung via Kamerakopf mit programmierbaren Tasten, Standbild

Eingebaute Bild - und Videospeicherung über USB

Optionen:

Fernsteuerung via Fußschalter

Kamerakopf / Camera head

Functions:

White balance, Window function, Boost, Anti-Moiree-Filter
Multilingual on-screen-menu
Digital zoom, up to 2,5
Camera control with keyboard
Character generator
Remote camera head with programmable push buttons
Freeze function

Included Capture Modul for image and video

Options:

Remote footswitch

TV-System: NTSC

Cat# 25-1040-01)



K8

DIGIT C-350 / 1 Chip 1/3" / Art. 25-1040-00

TECHNISCHE DATEN:

Kamerakopf:

Bildverhältnis 4:3
Bildsensor: 1/3" CCD
Einlegbar in Desinfektionsmittel (mit beigetellter Schutzkappe)

System:

Netz: 100/240 VAC, 50-60 HZ
2 Feinsicherungen, 5x20 mm,
Ansprechverzögerung 3,5 AH
Leistungsaufnahme: 20 W
Bildauflösung:
PAL 752 x 582 / NTSC 768 x 494
TV Auflösung: >470 Linien
Empfindlichkeit: < 1 Lux (1/1.4)
Automatischer Weisabgleich
Shutter Geschwindigkeit:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Videoausgänge:

2 x Video, 2 x S-Video, 1x Y-Pb-Pr
(Component), 1 x SDI, 1x USB 2.0

Normen:

Schutzklasse 1, Type BF,
IEC 601-1, EN 60601-1, Klassifizierung nach
93/42/EWG :1

Größe +Gewicht Steuereinheit:

(TxHxB): 355 x 103 x 253 mm; 4,4 kg

Lieferumfang:

Steuereinheit, Kamera Kopf mit 3 m Kabel,
Stromkabel, Y/C Kabel, BNC Kabel, DVI
Kabel, Bedienungsanleitung,
Kamerakopf mit
programmierbaren Tasten:
Gewicht: 105 g, d=34 / l=74mm

TECHNICAL DATA:

Camera Head:

Aspect ratio: 4:3
Image sensor: 1/3" CCD
Soakable (using attached cap)

System:

Power Supply: 100/240 VAC, 50-60 HZ
Fuse: 2 Fine Fuses, 5 x20mm, delay acting
3,5 AH (I=1500A)
Power Consumption: 20 W
Image resolution:
PAL 752 x 582 / NTSC 768 x 494
TV resolution: >470 lines
Sensitivity: < 1 lux (1/1.4)
White balance automatically, with data
hold
Shutter Speed:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Video out terminal:

2 x Video, 2 x S-Video, 1x Y-Pb-Pr
(Component), 1 x SDI, 1x USB 2.0

Standards:

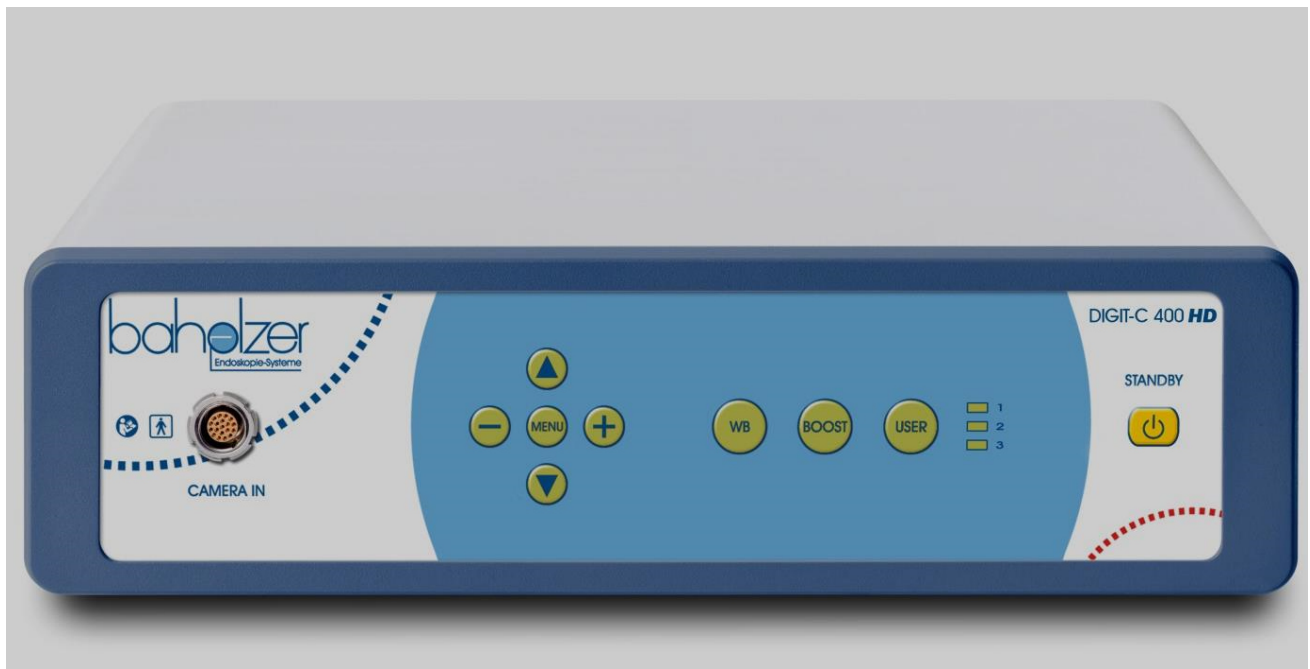
Protection class: I, Type BF,
IEC 601-1, EN 60601-1, classification acc.
93/42/EEC :I

Dimensions + Weigth Control Unit:

(WxHxD): 355 x 103 x 253; 4,4 kg

Scope of Delivery:

CCU, camera head with 3m cable, mains
cable, Y/C cable, BNC cable, DVI cable,
User manual, Camera head with
programmable push buttons:
Weight: 105 g, d=34 / l=74 mm



DIGIT C-400 / 1 Chip 1/3" HD / Art. 25-1050-00

Kamera mit voller HD Auflösung

Funktionen:

Direkte Anwahl:

Weißabgleich, Boost Funktion
(Helligkeit anheben)

Über Menüauswahl: (als Beispiel)

Window Funktion (Meßfeldfenster),
Anti-Moiree-Filter (Faserendoskope),
Standbild

Mehrsprachiges Bildschirmmenü

Digitales Zoom , 2,5 Fach

Fernsteuerung via Kamerakopf
und/oder Fußschalter mit
programmierbaren Tasten,

Optionen:

Kamerasteuerung mit Tastatur

Zeichengenerator

Kamerakopf / Camera head:

Camera with full HD resolution

Functions:

Buttons:

White Balance, Boost

Menu: (in example)

Window function,

Freeze function

Multilingual on-screen-menu

Digital zoom, up to 2,5

Remote control with camera head
and/or foot switch with
programmable push buttons.

Options:

Camera control with keyboard

Character generator.

TV-System: PAL /NTSC

NTSC Cat# **25-1040-01**



K10

DIGIT C-400 / 1 Chip 1/3" HD / Art. 25-1050-00

TECHNISCHE DATEN:

Kamerakopf:

Bildverhältnis 16:9
Bildsensor: 1/3" MOS
Einlegbar in Desinfektionsmittel (mit beigetellter Schutzkappe)

System:

Netz: 100/240 VAC, 50-60 HZ
2 Feinsicherungen, 5x20 mm,
Ansprechverzögerung 3,15 AH
Leistungsaufnahme: 20 W
Bildauflösung: full HD 1920 x 1080
TV Auflösung: >1000 Linien
Empfindlichkeit: < 3 Lux (1/1.4)
Automatischer Weisabgleich
Shutter Geschwindigkeit:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Videoausgänge:

1 x HDMI/DVI, 1 x Video, 1 x S-Video,
1x Y-Pb-Pr (Component, 3 x BNC),
2 x HD SDI (optional)

Normen:

Schutzklasse 1, Type BF,
IEC 601-1, EN 60601-1, Klassifizierung nach
93/42/EWG :1

Größe +Gewicht Steuereinheit:

(TxHxB): 355 x 103 x 253 mm; 4,5 kg

Lieferumfang:

Steuereinheit, Kamera Kopf mit 3 m Kabel,
Stromkabel, Y/C Kabel, BNC Kabel, DVI +
RGB Kabel, Bedienungsanleitung
Optional: Wasserdichte Tastatur mit
Zeichengenerator.

TECHNICAL DATA:

Camera Head:

Aspect ratio: 16:9
Image sensor: 1/3" MOS
Soakable (using attached cap)

System:

Power Supply: 100/240 VAC, 50-60 HZ
Fuse: 2 Fine Fuses, 5 x20mm, delay acting
3,15 AH (I=1500A)
Power Consumption: 20 W
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:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Video out terminal:

1 x HDMI /DVI, 1 x Video, 1 x S-Video,
1x Y-Pb-Pr (Component, 3 x BNC),
2 x HD SDI (optional)

Standards:

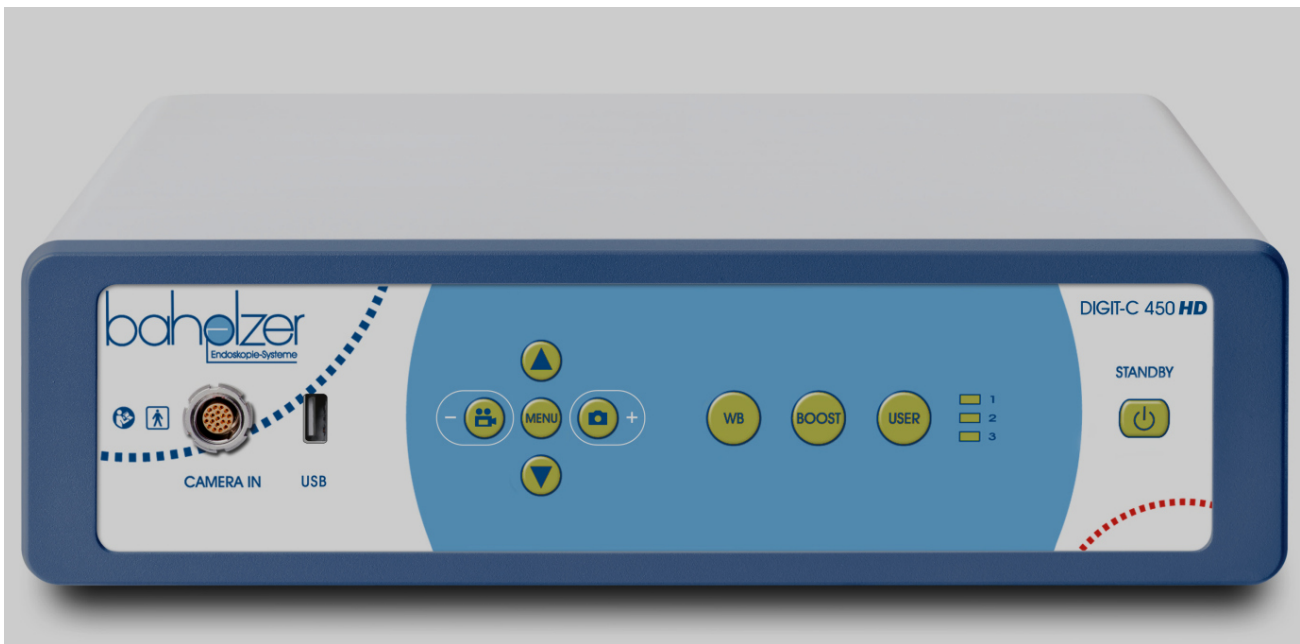
Protection class: I, Type BF,
IEC 601-1, EN 60601-1, classification acc.
93/42/EEC :I

Dimensions + Weigth Control Unit:

(WxHxD): 355 x 103 x 253; 4,5 kg

Scope of Delivery:

CCU, camera head with 3 m cable, mains
cable, Y/C cable, BNC cable, HDMI cable,
HDMI-DVI cable, RGB cable, User manual
Optional: Waterproof Keyboard



DIGIT C-450 / 1 Chip 1/3" HD / Art. 25-1055-00

Kamera mit voller HD Auflösung und integriertem Speichermodul

Funktionen:

Direkte Anwahl:

Weißabgleich, Boost Funktion
(Helligkeit anheben)

Über Menüauswahl: (als Beispiel)

Window Funktion (Meßfeldfenster),
Standbild

Mehrsprachiges Bildschirmmenü

Digitales Zoom , 2,5 Fach

Fernsteuerung via Kamerakopf 3
programmierbaren Tasten,
Zeichengenerator zur Eingabe von
Patienteninformationen

Optionen:

Kamerasteuerung Fußschalter

Spritzwassergeschützte Tastatur

Kamerakopf / Camera Head

Gew./Weigth:105g; d=34mm;l=73mm

Camera with full HD resolution and integrated capture modul

Functions:

Buttons:

White Balance, Boost (Illumination
increase)

Menu: (in example)

Window function,
Freeze function

Multilingual on-screen-menu

Digital zoom, up to 2,5

Remote control with camera head
with 3 programmable buttons
Character generator for entering
patient information.

Options:

Camera control with footswitch

Waterproof keyboard.

TV-System: PAL /NTSC

NTSC Cat# **25-1040-01**



K12

DIGIT C-450 / 1 Chip 1/3" HD / Art. 25-1055-00

TECHNISCHE DATEN:

Kamerakopf:

Bildverhältnis 16:9
Bildsensor: 1/3" MOS
Einlegbar in Desinfektionsmittel (mit beigetellter Schutzkappe)

System:

Netz: 100/240 VAC, 50-60 HZ
2 Feinsicherungen, 5x20 mm,
Ansprechverzögerung 3,15 AH
Leistungsaufnahme: 20 VA
Bildauflösung: full HD 1920 x 1080
TV Auflösung: >1000 Linien
Empfindlichkeit: < 3 Lux (1/1.4)
Automatischer Weisabgleich
Shutter Geschwindigkeit:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Videoausgänge:

1 x HDMI/DVI, 1 x Video, 1 x S-Video,
1x Y-Pb-Pr (Component, 3 x BNC),
2 x HD SDI (optional), LAN (optional)

Normen:

Schutzklasse 1, Type BF,
IEC 601-1, EN 60601-1, Klassifizierung nach
93/42/EWG :1; EN ISO 13485

Größe +Gewicht Steuereinheit:

(TxHxB): 355 x 103 x 253 mm; 4,5 kg

Lieferumfang:

Steuereinheit, Kamera Kopf mit 3 m Kabel,
Stromkabel, Y/C Kabel, BNC Kabel, DVI
Kabel, Bedienungsanleitung

Optional:

Wasserdichte Tastatur mit
Zeichengenerator.
Fusschalter

TECHNICAL DATA:

Camera Head:

Aspect ratio: 16:9
Image sensor: 1/3" MOS
Soakable (using attached cap)

System:

Power Supply: 100/240 VAC, 50-60 HZ
Fuse: 2 Fine Fuses, 5 x20mm, delay acting
3,15 AH (I=1500A)
Power Consumption: 20VA
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:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Video out terminal:

1 x HDMI /DVI, 1 x Video, 1 x S-Video,
1x Y-Pb-Pr (Component, 3 x BNC),
2 x HD SDI (optional), LAN (optional)

Standards:

Protection class: I, Type BF,
IEC 601-1, EN 60601-1, classification acc.
93/42/EEC :1; EN ISO 13485

Dimensions + Weigth Control Unit:

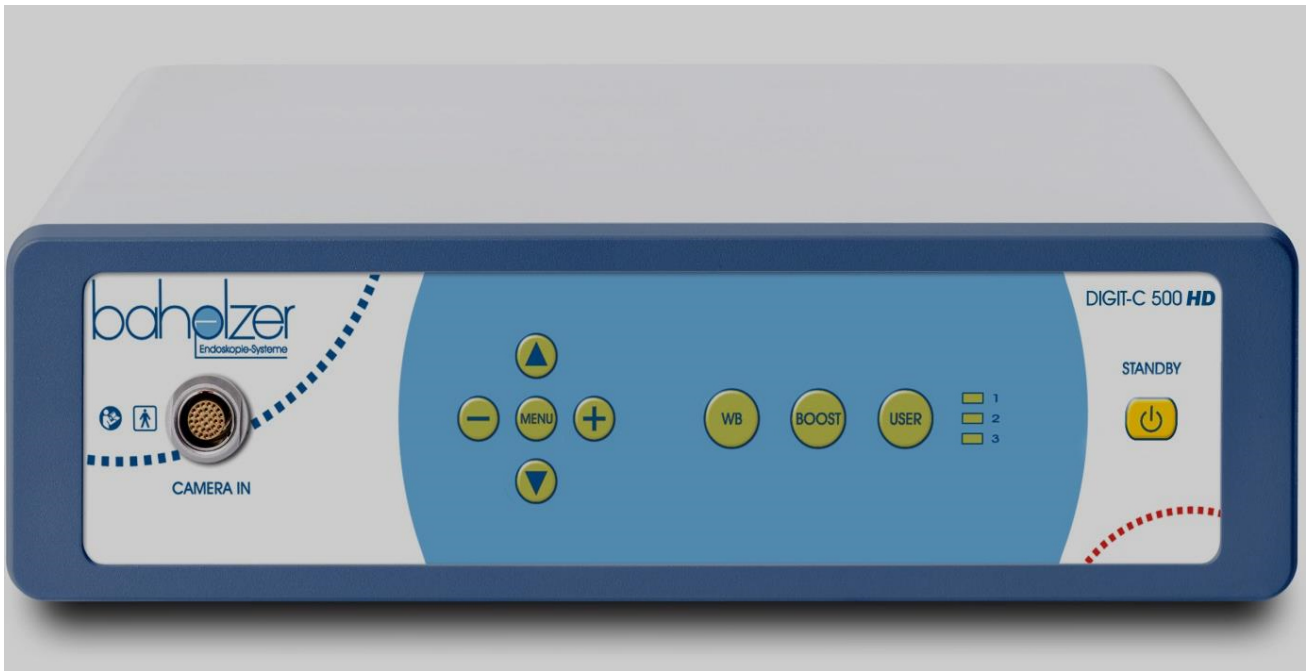
(WxHxD): 355 x 103 x 253; 4,5 kg

Scope of Delivery:

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

Optional:

Waterproof Keyboard
Footswitch



DIGIT C-500 / 3 Chip 1/3" HD / Art. 25-1060-00

3 Chip Kamera mit voller HD Auflösung

Funktionen:

Direkte Anwahl:

Weißabgleich, Boost Funktion
(Helligkeit anheben)

Über Menüauswahl: (als Beispiel)

Window Funktion (Meßfeldfenster),
Standbild

Mehrsprachiges Bildschirmmenü

Digitales Zoom , 2,5 Fach

Fernsteuerung via Kamerakopf mit 3
programmierbaren Tasten,

Optionen:

Kamerasteuerung mit Tastatur

Zeichengenerator

Kamerakopf / Camera head:

3 Chip Camera with full HD resolution

Functions:

Buttons:

White Balance, Boost

Menu: (in example)

Window function,

Freeze function

Multilingual on-screen-menu

Digital zoom, up to 2,5

Remote control with camera head
and 3 programmable push buttons.

Options:

Camera control with keyboard

Character generator.

TV-System: PAL /NTSC

NTSC Cat# **25-1040-01**)



K14

DIGIT C-500 / 3 Chip 1/3" HD / Art. 25-1060-00

TECHNISCHE DATEN:

Kamerakopf:

Bildverhältnis 16:9
Bildsensor: 1/3" MOS
Einlegbar in Desinfektionsmittel (mit beigestellter Schutzkappe)

System:

Netz: 100/240 VAC, 50-60 HZ
2 Feinsicherungen, 5x20 mm,
Ansprechverzögerung 3,15 AH
Leistungsaufnahme: 20 W
Bildauflösung: full HD 1920 x 1080
TV Auflösung: >1000 Linien
Empfindlichkeit: < 3 Lux (1/1.4)
Automatischer Weisabgleich
Shutter Geschwindigkeit:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Videoausgänge:

2 x HD SDI, 1 x HDMI/DVI
1 x Video, 1x Y-Pb-Pr (Component, 3 x BNC)

Normen:

Schutzklasse 1, Type BF,
IEC 601-1, EN 60601-1, Klassifizierung nach
93/42/EWG :1

Größe +Gewicht Steuereinheit:

(TxHxB): 355 x 103 x 253 mm; 4,5 kg

Lieferumfang:

Steuereinheit, Kamera Kopf mit 4 m Kabel,
Stromkabel, Y/C Kabel, BNC Kabel,
DVI/HDMI/RGB Kabel,
Bedienungsanleitung
Optional: Wasserdichte Tastatur mit
Zeichengenerator.

TECHNICAL DATA:

Camera Head:

Aspect ratio: 16:9
Image sensor: 1/3" MOS
Soakable (using attached cap)

System:

Power Supply: 100/240 VAC, 50-60 HZ
Fuse: 2 Fine Fuses, 5 x20mm, delay acting
3,15 AH (I=1500A)
Power Consumption: 20 W
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:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Video out terminal:

2 x HD SDI, 1 x HDMI /DVI
1 x Video, 1x Y-Pb-Pr (Component, 3 x
BNC)

Standards:

Protection class: I, Type BF,
IEC 601-1, EN 60601-1, classification acc.
93/42/EEC :I

Dimensions + Weigth Control Unit:

(WxHxD): 355 x 103 x 253; 4,5 kg

Scope of Delivery:

CCU, camera head with 4m cable, mains
cable, Y/C cable, BNC cable, HDMI cable,
HDMI-DVI cable, RGB cable, User manual
Optional: Waterproof Keyboard



DIGIT C-550 / 3 Chip 1/3" HD / Art. 25-1065-00

3 Chip Kamera mit voller HD Auflösung und integriertem Speichermodul

Funktionen:

Direkte Anwahl:

Weißabgleich, Boost Funktion (Helligkeit anheben)

Über Menüauswahl: (als Beispiel)

Window Funktion (Meßfeldfenster), Standbild,
3 Nutzerprofile speicherbar
Mehrsprachiges Bildschirmmenü
Digitales Zoom , 2,5 Fach
Fernsteuerung via Kamerakopf und 3 programmierbaren Tasten,
Zeichengenerator

Optionen:

Fußschalter, Spritzwassergeschützte Tastatur

3 Chip Camera with full HD resolution and integrated capture system

Functions:

Buttons:

White Balance, Boost Function

Menu: (in example)

Window function, Freeze function
3 user settings storable
Multilingual on-screen-menu
Digital zoom, up to 2,5
Remote control with camera head, 3 programmable push buttons.
Character generator.

Options:

Waterproof keyboard, Footswitch

TV-System: PAL /NTSC
NTSC Cat# **25-1040-01**)



K16

DIGIT C-550 / 3 Chip 1/3" HD / Art. 25-1065-00

TECHNISCHE DATEN:

Kamerakopf:

Bildverhältnis 16:9
Bildsensor: 1/3" MOS
Einlegbar in Desinfektionsmittel (mit beigestellter Schutzkappe)

System:

Netz: 100/240 VAC, 50-60 HZ
2 Feinsicherungen, 5x20 mm,
Ansprechverzögerung 3,15 AH
Leistungsaufnahme: 20 VA
Bildauflösung: full HD 1920 x 1080
TV Auflösung: >1000 Linien
Empfindlichkeit: < 3 Lux (1/1.4)
Automatischer Weisabgleich
Shutter Geschwindigkeit:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Videoausgänge:

1 x HDMI/DVI, 1 x Video, 1 x S-Video,
1x Y-Pb-Pr (Component, 3 x BNC)
2 x HD SDI (optional), LAN (optional)

Normen:

Schutzklasse 1, Type BF,
IEC 601-1, EN 60601-1, Klassifizierung nach
93/42/EWG :I, EN ISO 13485,

Größe +Gewicht Steuereinheit:

(TxHxB): 355 x 103 x 253 mm; 4,5 kg

Lieferumfang:

Steuereinheit, Kamera Kopf mit 3 m Kabel,
Stromkabel, Y/C Kabel, BNC Kabel,
DVI/HDMI/ Kabel, Bedienungsanleitung

Optional:

Wasserdichte Tastatur, Fusschalter

TECHNICAL DATA:

Camera Head:

Aspect ratio: 16:9
Image sensor: 1/3" MOS
Soakable (using attached cap)

System:

Power Supply: 100/240 VAC, 50-60 HZ
Fuse: 2 Fine Fuses, 5 x20mm, delay acting
3,15 AH (I=1500A)
Power Consumption: 20VA
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:
PAL 1/50 – 1/100.000 sec
NTSC 1/60 -1/100.000 sec

Video out terminal:

, 1 x HDMI /DVI, 1 x Video, 1 x S-Video,
1x Y-Pb-Pr (Component, 3 x BNC)
2 x HD SDI (optional), LAN (optional)

Standards:

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

Dimensions + Weigth Control Unit:

(WxHxD): 355 x 103 x 253; 4,5 kg

Scope of Delivery:

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

Optional:

Waterproof Keyboard, Footswitch



TV- Adapters

TV- Adapters, c-mount, soakable

f= 15.0 mm	10-0055-00
f= 21.0 mm	10-0052-00
f= 28.0 mm	10-0053-00
f= 35.0 mm	10-0054-00
f= 40.0 mm	10-0074-00

soakable

TV- Adapters, c-mount, non-soakable

f= 15.0 mm	10-0059-00
f= 21.0 mm	10-0056-00
f= 28.0 mm	10-0057-00
f= 35.0 mm	10-0058-00
f= 40.0 mm	10-0075-00

non-soakable

Zoom-TV-Adapters, c-mount, soakable

f=15.0 mm up to f=25.0 mm	10-0060-00
f=25.0 mm up to f=40.0 mm	10-0061-00

soakable

Beamsplitter, c-mount, soakable

f=28.0 mm	10-0104-00
f=35.0 mm	10-0105-00

soakable

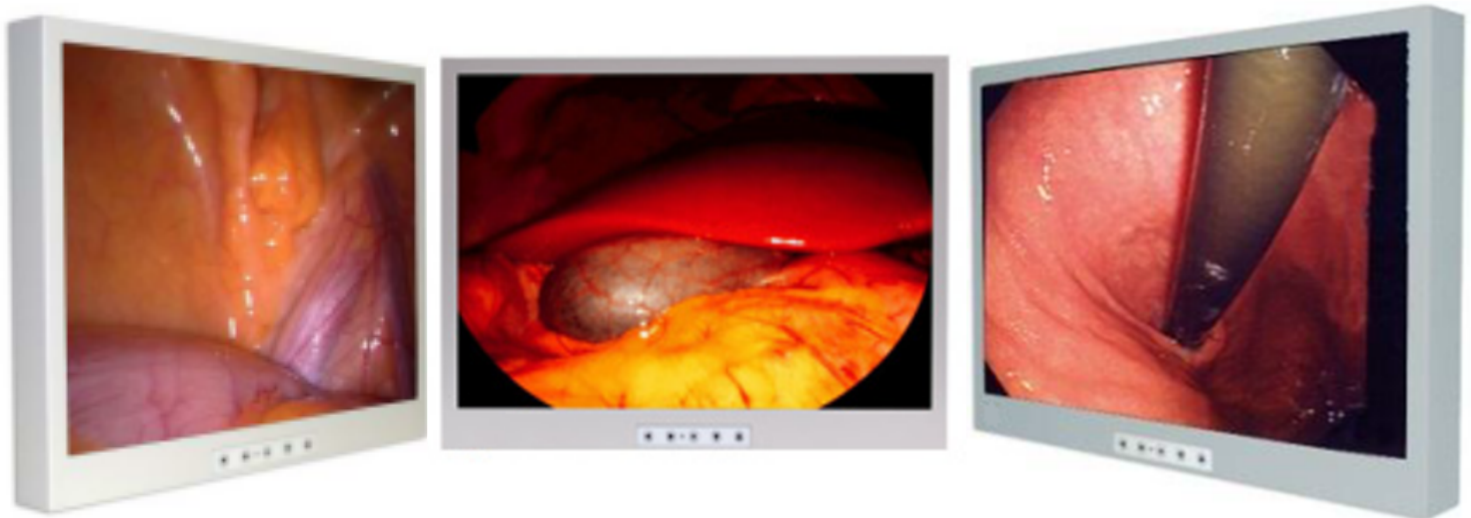
For any further requirements please don't hesitate to contact us. We are able to design any endoscopic product specific to your needs.

10-0238-00

Varlo-Zoom- TV- Adapter f = 15.0mm - f = 35.0mm, c-mount, soakable

Technical Data	
Type	Parfocal Zoom TV-adapter
Focus range	f 15 to 35 mm
Adjustment rings	silver: to zoom blue: to focus
Camera connection	C-mount thread
Endoscope connection	catch with locking screw for all eyepieces built according DIN 58105
Dimensions (W _{max} x H)	55 x 60 mm
Weight	0,08 kg
Customs Identification No.	90139090
Class / Type	1
Manufactured and tested acc.	EN ISO 13485 CE EN ISO 9001 CE





Screen Size 19" - 25-0505-00 / 20,1" - 25-0506-00
24" - 25-0508-00 / 26" - 25-0510-00

HIGH Quality HD Medical Monitors

- Aspect Ratio 5:4 /16:9
- Picture in Picture function
- Control via OSD Submenu
- Auto Picture Setup - Automatic calibration of image position, pixel clock
- Auto Color Gain - Automatic color calibration
- Manual Clock –Adjustment of the image horizontal size
- Auto Source Seek . Selecting the corresponding input sources detection
- De-interlacing Mode –Video signal sources could be accomodating to individual requirements of each application.
- Image Orientation – horizontal or vertical mirroring or rotation of source signal
- Freeze Function – display fixed-image
- Zoom – enlarge display image
- Adjustment of color temperature
- Monochrome Mode

Screen Size 19" - 25-0505-00 / 20,1" - 25-0506-00 24" - 25-0508-00 / 26" - 25-0510-00

Technical Data

25-0505-00 | 25-0506-00 | 25-0508-00 | 25-0510-00

Type	Ultra compact, leak-proofed and lightweight Slim-Line Desktop chassis, other types of chassis (o)			
Chassis material	Aluminium (s), high-grade steel (o), synthetic material(o)			
Chassis Color	lightgrey RAL 7035, anthracitegrey RAL 7016, whitealuminium RAL 9006, customized tints(o)			
Adaption Possibilities	VESA Adaption 100mm x 100mm			
Non-Reflective Safety Glass / Touchscreen	Not sensitive to cleaning agents or damage (s) / with USB interface (o)			
Options	Cable bonnet (o), Quick-Release adaptor (o), customized logo (o)			
LC-Display	TFT-Display Generation 2013	TFT-Display Generation 2013	TFT-Display Generation 2013	TFT-Display Generation 2013
Diagonal	19,0" / 482,6 mm / 16,7 Mio. Colors / RGB 8 Bit	20,1" / 510,5 mm / 16,7 Mio. Colors / RGB 8 Bit	24,0" / 609,6 mm / 16,7 Mio. Colors / RGB 8 Bit	26,0" / 660,4 mm / 16,7 Mio. Colors / RGB 8 Bit
Active Display Area / Aspect Ratio	x = 376,32 mm, y = 301,06 mm aspect ratio: 5:4	x = 408,4 mm, y = 306,3 mm aspect ratio: 4:3	x = 518,4 mm, y = 324 mm – aspect ratio: 16:10	x = 576,0 mm, y = 324,0 mm aspect ratio 16:9
Native Resolution	1280 x 1024 Pixel (SXGA)	1600 x 1200 Pixel (UXGA)	1920 x 1200 Pixel (WUXGA)	1920 x 1080 Pixel (Full HD)
Brightness / Backlight	600 cd/m ² / LED	300 cd/m ² / CCFL	350 cd/m ² (Typ.) / CCFL	350 cd/m ² (Typ.) / LED
Contrast Ratio	2000:1 (Typ.)	800:1 (Typ.)	1000:1 (Typ.)	1000:1 (Typ.)
Perspective H / V	178 Grad / 178 Grad	178 Grad / 178 Grad	178 Grad / 178 Grad	178 Grad / 178 Grad
Response Time	8 ms (GTG)	8 ms (GTG)	6 ms (GTG)	8 ms (GTG)
Handling	front sided sensors behind synthetic material front, OSD multilingual / symbols, IR-Remote Control (o)			
PiP, PbP, Picture Mirroring	(s), (s), (s),			
Brightness-sensor	integrated (o)			
Interfaces				
Interfaces - PC	1 x VGA (s), 1 x DVI-D (s),			
Interfaces - Video	1 x Composite (s), 1 x Y/C (s), 1 x VICR-01 (o), 1 x oder 2 x HD-SDI (o)			
Remote mode/ Ethernet	1 x RS-232 (s), 1 x RJ 45 (o)			
Audio	1 x In, 2 x speakers front- (o) / rear sided (o)			
Power	External, medical approved, long-range Power Supply (EN60601-01 und UL approved)			
Power absorption Typ. / Standby	ca. 55 Watts	ca. 50 Watts	ca. 95 Watts	ca. 60 Watts
Approvals	CE and MPG (EN 60601-01)			
Operating temperature / Air humidity relative	+5° to +40° Celsius / 20% to 80%			
Type of protection	IP 54 front sided			
24/7	Ready			
Miscellaneous				
Dimensions H / W / D	375,0 mm x 425,0 mm x 82,0 mm	385,0 mm x 460,0 mm x 90,0 mm	400,0 mm x 570,0 mm x 100,0 mm	426,0 mm x 650,0 mm x 80,0 mm
Weight	ca. 6,5 Kg	ca. 7,0 Kg	ca. 7,5 Kg	ca. 6,5 Kg
Warranty	24 month Bring-In Warranty, Pick-up and Return incl. Devices on loan (o)			

26,0" Premium HD Medical LCD Monitor

1.00 Gehäuse Version		
1.01	Desktop	ultra kompaktes, dichtes und leichtes Slimline Aluminiumgehäuse signalweiß RAL 9003, lichtgrau RAL 7035, weißaluminium RAL 9006 durch die VESA Adaptionmöglichkeit kann der Monitor an alle Montagesysteme montiert werden doppelseitiges, superentspiegeltes, farbneutrales Schutzglas, unempfindlich gegen Reinigungsmittel und Beschädigung
1.02	Standard Farbtöne	
1.03	VESA 100	
1.04	Schutzglas	
2.00 LC-Display Daten		
2.01	Diagonale, etc.	26,0" / 660,8 mm / 16,7 Mio. Farben / RGB 8 Bit
2.02	aktive Displayfläche	x = 575,6 mm, y = 323,8 mm - Seitenverhältnis 16:9
2.03	native Auflösung	1920 x 1080 Pixel (WUXGA)
2.04	mögl. Auflösung	VGA - 1080p
2.05	Helligkeit/Backlight	350 cd/m² / LED, geringer Energieverbrauch, hohe Lebensdauer
2.06	Kontrast	1000:1
2.07	Blickwinkel H / V	178 / 178 Grad
2.08	Responsetime	8 ms GTG
3.00 Schnittstellen		
3.01	PC	1 x VGA (D-Sub), 1 x DVI-D
3.02	Video	1 x FBAS (BNC), 1 x S-Video
3.03	Remotebetrieb	RS-232 Schnittstelle
Optionen		
3.05	HD-SDI 1 Kanal	1 x Input, 1 x Output (BNC)
3.06	HD-SDI 2 Kanal	2 x Input, 2 x Output (BNC)
4.00 Bedienung		
4.01	Menü	vollgrafisches, intuitiv bedienbares OSD-Menü
4.02	OSD Sprachen	mehrsprachig
5.00 Allgemeines		
5.01	Abmessungen	(H x B x T) 410 x 625 x 100 mm
5.02	Gewicht	7,5 Kg
5.03	Stromversorgung	externes Weitbereichsnetzteil (24V / DC) EN 60601, Potentialausgleichsbohlen
5.04	Zulassungen	CE, EN 60601-1, RoHS
5.05	Umweltbedingung	Betriebstemperatur +5° bis +40° Celsius
5.06	Schutzgrad (front)	IP54
5.07	Garantie	24 Monate Bring-in-Service



25-0600-00 Software Basic Video Picture Management 25-0610-00

Documentation Unit

Software:

- Software Basic Video-Picture Management, Storage, viewing and evaluation of video and picture findings,
- Patient, session and findings database, Full-HD video, PAL/NTSC video archiving of findings, picture editing, graphical markers
- HTML report with patient data and pictures, picture direct print with patient data, user interface "touch" optimized,
- Windows 8 / 7 / Vista, languages DE/EN/FR/IT/ES/RU/TR,

Hardware:

- Medical Grade All in One PC with touchscreen, display 21,5" / 55 cm, 1920 x 1080 pixel, encapsulated casing with IP65,
- glass front, antibacterial, fanless case, Intel Core i5 Processor 3rd generation, 4GB DDR3/1333MHz SO-DIMM, 500GB SATA, HDD, 2 x Network 1Gbit, resistive, touchscreen with Antiglare technology,
- VESA mount required, no keyboard and mouse included,

Optional: Language Package, Keyboard, Foot Switch,
Remote Control, VESA Stand,

Feature / Edition		Select 2.7	Basic 2.9	Operating Room 2.9	Classic (*1) 2.7
Classification					
Medical product class I (European Union)					
Compatibility					
Microsoft Windows 8 / 7 / VISTA (x64 / x86)					
Maximum display resolution for exclusive program presentation					
SD Video (PAL / NTSC)	1680 x 1050	✓	2048 x 1536	2048 x 1536	1680 x 1050
HD Video (720p / 1024p / 1080i / 1080p)		✓	✓	✓	✓
Languages	EN / DE / FR / ES / IT / RU	✓	EN / DE / FR / ES / IT / RU / TR	EN / DE / FR / ES / IT / RU / TR / FAS	EN / DE / FR / ES / IT / RU / TR / CN
Operation					
Constant user front end during the entire operation					
Demo period of 30 days / then activation via activation key is necessary					
Record control by foot switch, USB or camera					
During recording live image and single pictures shown in tiles					
Optimized for touch operation					
Data base					
Recording of pictures and videos					
Sessions summarizes recordings by date					
Patients summarizes sessions					
Full text search for comments					
Fachspezifische Kommentardatenbank					
Search and sort by patients					
Filter by surgeon					
Ring storage (FiFo) for recordings with automatic capacity control					
Centralized database with mutual exclusive access by one client					
Centralized database with simultaneous access by several clients					
					opt.

Feature / Edition	Select 2.7	Basic 2.9	Operating Room 2.9	Classic (*1) 2.7
Analysis & Report				
Pictures extraction from video	✓	✓	✓	✓
Storage of extracted pictures from video into database		✓	✓	✓
Entering of session comments		✓	✓	✓
Entering of dataset comments	✓	✓		✓
Entering of graphics markers with text into pictures		✓		✓
Predefined texts for comments		✓		✓
Interactive comment editor		✓		✓
Creation of configurable HTML reports with images		✓	✓	
Creation of configurable WORD reports with images				✓
Picture and video comparison				✓
Video cut				✓
Print, Export & Import				
Direct print-out of pictures to individual printer	✓	✓	✓	✓
Direct print-out of pictures with embedded patient data and additional information		✓	✓	
Export of pictures with embedded patient data and additional information	✓	✓		
Export of videos with embedded patient data and additional information				MPEG 2
Integrated DVD recording for video export				✓
Export of pictures and documents	BMP / JPEG / AVI	BMP / JPEG / AVI / MPEG / HTML	BMP / JPEG / AVI / MPEG / HTML	BMP / JPEG / AVI / MPEG
Import of pictures and documents				BMP / JPEG / WAV / AVI / MPEG / TXT / Word / Excel
Remote interface (GDT file) with linked picture or video findings				✓
Picture export to file in DICOM format				
Picture transference to PACS via "DICOM Send"		opt.	opt.	✓

Feature / Edition	Select 2.7	Basic 2.9	Operating Room 2.9	Classic (*1) 2.7
Image optimization VICA®				
Real time image processing for suppressing brightness variations under flashlight (SD Video)	✓	✓	✓	✓
Automatic removal of black margins at image print-outs	✓	✓	✓	✓
Security				
Encrypted file names of recordings	✓	✓	✓	✓
Automatic database backup providing selectable interval	✓	✓	✓	✓
Automatic archiving of recordings onto external data carrier		✓		✓
Automatic system check and repair during programme start-up		✓	✓	
User management for controlling access and edit rights				✓
System configuration secured by password		✓	✓	
Configuration				
Wizard for video device configuration	✓	✓	✓	✓
Changeover between device configurations	✓	✓	✓	✓



AP 150 / Art. 28-0092-00

Irrigation-Pump Arthroscopy and Disc Endoscopy

Functions:

- FLUSH function enables efficiency increase of fluid flow even up to 2l/min.
- LEVEL function gives a possibility to calibrate the measuring system by the user relative to the operation area. This option ensures a real measurement of pressure in the operating area. The regulation range is between – 100 cm and + 100 cm with a step of 1 cm.
- The measurement system is based on a redundant operation of two pressure sensors to ensure safety in case of failure of one of them.
- Embedded program that examines all crucial parameters of the device.
- Placement of sensitive gauges inside the device ensures protection against any mechanical damage.
- User interface equipped with highlighted buttons and corresponding icons to improve their visibility in poorly lighted operating rooms.
- Non-volatile memory of the latest settings.
- Large LED displays that simplify reading of parameters even from a distance.
- Overpressure protection.

AP 150 / Art. 28-0092-00

TECHNICAL DATA:

Irrigation:

Max. 2000 ml/min (depending on tube set and instrument)

System

Power Supply: 100/240 VAC, switchable, 50-60 HZ

Standards:

Protection class: I Type BF,

IEC 601-1, EN 60601-1, classification acc. 93/42/EEC :IIa

Dimensions + Weight Control Unit:

(WxHxD): 330 x 120 x 306 mm; 6 kg

Ambient Temperature and max. relative Humidity:

During Operation: 10°C to 40°C / 90%

During Storage and transport: -20°C to 45°C / 90%

Delivery contains:

Pump AP 150, Power cord with EU plug, Operating Manual, Spare fuses.

Tubes:

28-0153-00 - Single-use patient tubes 28-0153-00 (Qty.10),

28-0152-00 - Day-use pump tubes 28-0152-00 (Qty.3),

Optional:

28-0150-00: Remote Controller:



Hysteroscopy Pump HP 200 / Art. 28-0094-00



HP-200; Hysteroscopy Pump including silicon tubing set with pressure measuring chamber and thorn, flow 100-500ml/min, pressure range: 10-200mmHg; memory of recent settings, big and clear display, intuitive menu LEVEL function gives a possibility to calibrate the measuring system, range is between – 100 cm and + 100 cm with a step of 1 cm; Including tubing starter set (3 day use tubes pump side, 10 single use patient side).

TECHNICAL DATA:

System

Power Supply: 100/240 VAC, switchable, 50-60 HZ

Standards:

Protection class: I Type BF,
IEC 601-1, EN 60601-1, classification acc. 93/42/EEC :IIa

Dimensions + Weight Control Unit:

(WxHxD): 330 x 120 x 306 mm; 6 kg

Ambient Temperature and max. relative Humidity:

During Operation: 10°C to 40°C / 90%

During Storage and transport: -20°C to 45°C / 90%

Delivery contains:

Pump AP 150, Power cord with EU plug, Operating Manual, Spare fuses.

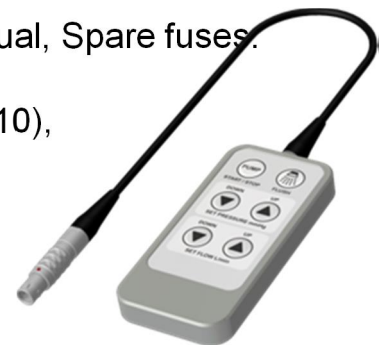
Tubes:

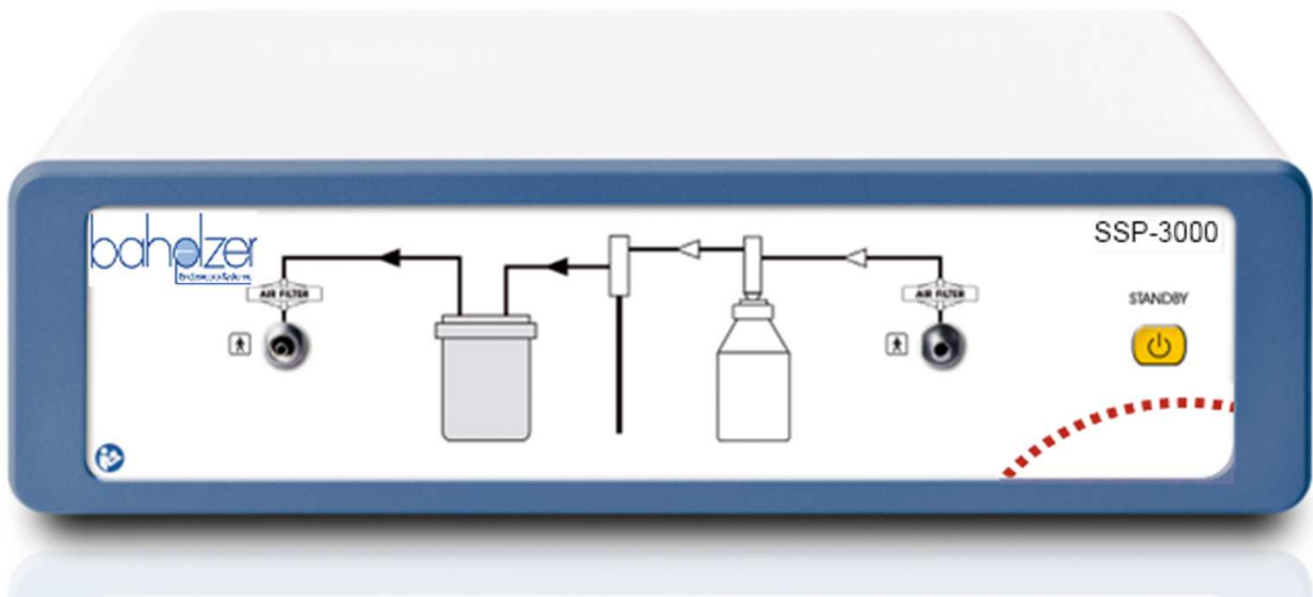
28-0153-00 - Single-use patient tubes 28-0153-00 (Qty.10),

28-0152-00 - Day-use pump tubes 28-0152-00 (Qty.3),

Optional:

28-0150-00: Remote Controller:





SSP 3000 / Art. 28-0117-00

**Saug-Spül-Pumpe für die
Laparoskopie max. 3 l.**

Funktionen:

- Spülen und Absaugen von Flüssigkeiten im Abdomen.
- Automatische Überdruck- und Unterdruckkontrolle.
- Kontaminationsschutz durch sterile Luftfilter zum Saug- und Spülbehälter.
- Automatische Standby-Funktion zur Aufrechterhaltung des Druckes.
- Autoklavierbarkeit des Zubehörs wie Silikon-schläuche, Saugflasche und Einstichdorn.

**Suction-Irrigation-Pump for
Laparoscopy max. 3 l.**

Functions:

- Suction and Irrigation of Fluids at the abdomen.
- Automatic Over- and Under-pressure control.
- Disposable filters avoid contamination of the pump and irrigation fluid.
- Automatic Standby-Function keeps the pressure available through whole surgery.
- All accessories are full autoclavable.

SSP 3000 / Art. 28-0117-00

TECHNISCHE DATEN:**Spülung:**

Max. 3000 ml/min (abhängig vom Schlauchset und Instrument)

Saugen:

Max. 3000 ml/min (abhängig vom Schlauchset und Instrument)

System:

Netz: 100/240 VAC, umschaltbar
50-60 HZ,

Normen:

Schutzklasse 1, Type BF,
IEC 601-1, EN 60601-1, Klassifizierung
nach 93/42/EWG :IIa

Größe +Gewicht Steuereinheit:

(TxHxB): 355 x 105 x 253 mm; 5,5 kg

Lieferumfang:

SSP 3000, 2 Liter Saugflasche mit
Halter, 2 sterile Filter, 1 Schlauchset
zum Saugen und Spülen, 1
Einstichdorn für die Spülflasche,
Bedienungsanleitung,

Zubehör:

28-0199-00 – 50 Stk. sterile
Einwegfilter.
28-0200-00 – 500 Stk. sterile
Einwegfilter.

Siehe auch schematische Darstellung

TECHNICAL DATA:**Irrigation:**

Max. 3000 ml/min (depending on tube
set and instrument)

Suction:

Max. 3000 ml/min (depending on tube
set and instrument)

System

Power Supply: 100/240 VAC,
switchable, 50-60 HZ

Standards:

Protection class: I Type BF,
IEC 601-1, EN 60601-1, classification
acc. 93/42/EEC :IIa

Dimensions + Weight Control Unit:

(WxHxD): 355 x 105 x 253 mm; 5,5 kg

Delivery contains:

SSP 3000, 2 liter suction bottle with
holder, 2 sterile filter, 1 silicone tube set
for suction and irrigation, 1 thorn for
rinsing bottle, User manual

Accessories:

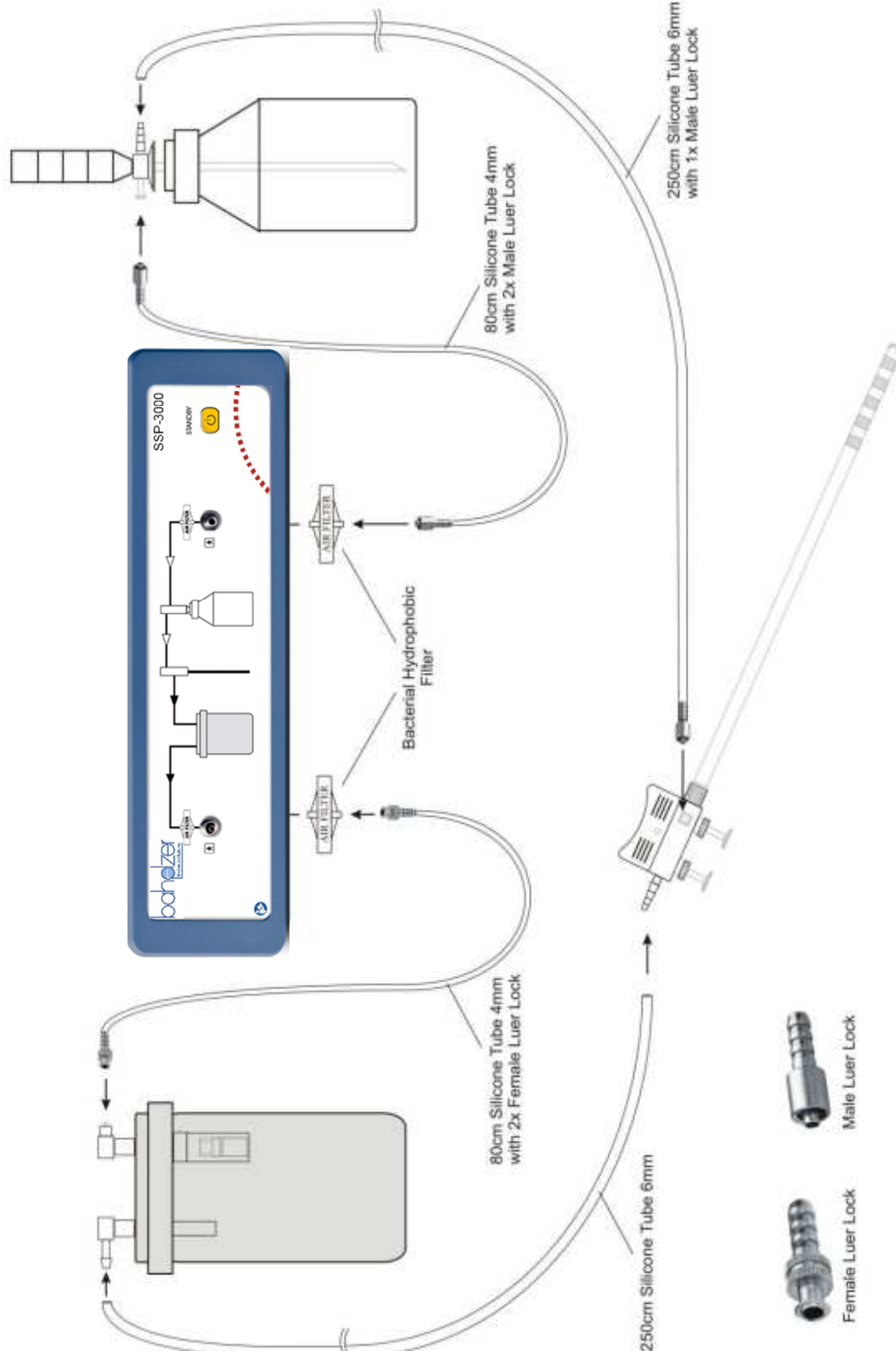
28-0199-00 – 50 pieces. sterile filter
28-0200-00 – 500 pieces sterile filter

Check Diagrammatic Plan

SSP 3000 / Art. 28-0117-00

Schematische Darstellung

Diagrammatic Plan:





CO² Insufflator 20I / 28-0110-00

TECHNICAL DATA

Electrical Data

Voltage 100...240 V/AC

Frequency 50...60 Hz

Power Consumption max. 65 W (with GasTherme)

Current max. 0,6 A

Fuses at 220 - 240 V: T 2 A E

at 100 - 115 V: T 3,15 A H / [UL/CSA Type in : T 4 A H]

Insufflation data

Insufflation Pressure

(Laparoscopy) 1...25 mmHg (max. 30 mmHg)

Accuracy of Pressure Indicator $\pm 3\%$

Gas Flow

(Laparoscopy) 1...15 litre/min.

Accuracy of Gas Flow Indicator $\pm 10\%$

Other Data

Dimensions (l/w/h) (275 x 350 x 120) mm

Weight 7 kg

Casing Stainless Steel

Temperature Range +10...+40 °C / 50 to 104° F

Relative Humidity 10...90 %

Insufflation Gas Medical Grade Carbon Dioxide

Gas Connector UNF 7/16" male

Storage/Transport Conditions

Temperature -40°C ... +70°C / -40 to 158° F

Humidity 10 % ... 100 %

Classification

Name of Device COL 20-25

Protection Class, Type I , BF

Protection Degree IP 31

Manufactured and Tested according
to DIN EN 60601-1 [VDE 0750 part 1-1]
Suppression of Interference

(EMC) according to DIN EN 60601-1-2 [VDE 0750 part 1-2]

Classification of Directive 93/42/EEC IIb

CE-Mark

ENDOSCOPE TO IMAGING

Endoscope rigid,
flexible,
semiflexible
Miniscope

TV-Adapter
f14 to f35
focal length

Camera Head
with/ without
programmable
buttons



Light Cable



Monitor in various sizes



All in One System to store
endoscopic pictures and
videos in HD, optional with
touch screen available

Connection to
hospital system
like DICOM or
Image printing



Trolley

Camera-Monitor-
Cable
i.e. HDMI, SDI,
VGA, S-Video,
Y/C Component

In addition and not
shown necessary
for different
surgeries:
- HF-Generator
- Shaver
- Pump
- Insufflator



Camera SD / HD
with capture or without
various functions
available



Lightsource
XENON or LED