PRODUCT INFORMATION

Hysteroscopy Systems
Innovative. Cost-efficient. Future-proof.

30°
GERMANY

HD FLEXIBLE

HD FLEXIBLE

Full HD   4K

3D
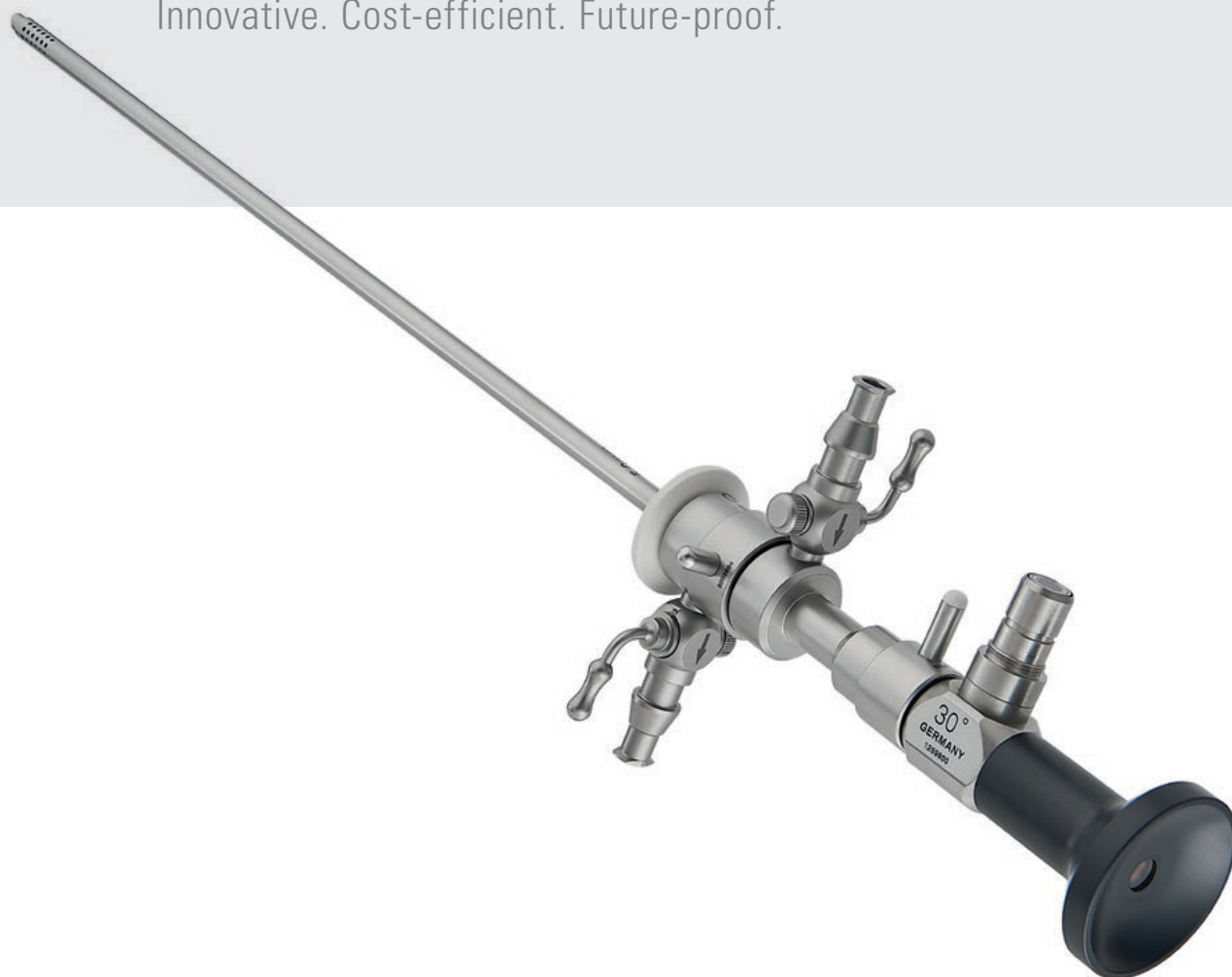
See more than others.

Hysteroscopy – Diagnosis and treatment of abnormal conditions

Since its early beginnings in 1805, Hysteroscopy has grown to become the standard method of choice to evaluate and manage many gynecological conditions. Furthermore, more often hysteroscopic interventions will be shifted from the operating theater to an office or ambulatory setting. This change is possible due to the evolvement of gynecological equipment. Sheaths with minimized outer diameters and optimized roughness depth of surface allow surgeons an extreme gentle insertion into the cervical os.[1]

A revolutionary camera technology, developed by XION, forms the basis of the Spectar Hysteroscopy Systems, which meets all requirements of modern endoscopy. Thanks to optimized colour reproduction, minimized image noise and homogeneous illumination, the latest image processing routines developed by XION provide highest image quality. A wide range of equipment levels make sure that Spectar Camera Processors can used taking account individual needs and budgets, without compromising image quality and flexibility.

1) L. Mettler, M. Parikh, T. Schollmeyer; Diagnostic and Operative Hysteroscopy; https://bit.ly/2OiVj2X

EndoOFFICE
The compact system for the office hysteroscopy

329 102 XXX EndoOFFICE
office hysteroskopy
system

The system comprises the following components
- MATRIX EL Spectar HD Camera Processor with integrated light source
- Spectar Camera Head HD zoom
- Panel PC 21" with touchscreen
- DiVAS Basic / Patient Management module
- DiVAS HD Video Documentation module
- DiVAS Photo Documentation module
- Roller stand with EndoDESK system backplane
- Holder for HD camera head and light cable

Description of
> DiVAS Module, page 10 ff
> Hysteroscopes and Sheths, page 12 ff

The compact system EndoOFFICE is specially designed for use in the gynecological outpatient clinic and practice. The system components of the EndoOFFICE form a compact unit and offer excellent convenience with optimal quality. This system distinguishes itself with high image quality, ease of use and user-friendly acquisition, processing and storage of patient-, video- and image data.

MATRIX EL Spectar
The universal camera processor with integrated light source

- Universal HD camera processor with integrated LED light source
- Excellent image quality by means of innovative, proprietary image processing routines
- Minimal image latency
- Extremely quiet operation
- Clearly arranged, intuitive keypad
- Highest patient safety by means of laser-optical galvanic isolation within the camera processor
- Long-life LEDs – low operating costs

The MATRIX EL combines the functionality of a high-quality HD camera processor and a powerful LED light source in a single compact, extremely quiet, universally applicable unit.

Spectar Camera Head HD Zoom

the image size to be individually adapted without compromising quality and without the need for refocusing.

- Lightweight, ergonomic soft touch design
- Two customizable keys
- Extremely compact and very easy to handle
- Integrated Parfocal zoom lens
- Spectar Connector
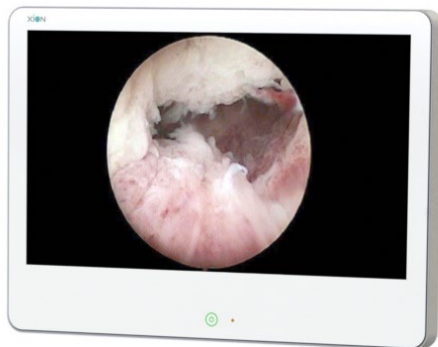- Sterile adapter for the optics change under sterile conditions

The highly sensitive Full HD sensor of the Spectar Camera Head provides detailed image reproduction. An optical Parfocal Zoom (f = 16 through 32 mm) allows

Panel PC 21,5" with HD Touchscreen

- Powerful panel PC for use in critical medical fields
- High-quality 21.5" color display with excellent contrast ratio and low viewing angle dependency
- Native resolution 1,920 x 1,080
- Robust metal housing, cleanable and wipe disinfectable
- Fanless construction, therefore no noise pollution and no dust swirling

DiVAS Software

User-friendly software optimize the entire workflow: The number of control steps are reduced to a minimum, patient data is easy to manage. All video, image, audio and measurement data are recorded, archived and evaluated. Documentations such as medical reports can be generated automatically.

Roller Stand

The roller stand for the MATRIX EL and a panel PC with touch screen creates an extremely compact and mobile unit for the Office Hysteroscopy. Optional accessories such as drawer, storage basket or wireless foot switch complete the system.

XION

EndoGYN
The universal system for all hyteroscopic applications

HD FLEXIBLE

4K Full HD

3D

The system includes the following components as standard
- MATRIX PL Spectar 4K / HD Camera Processor with integrated light source
- Spectar Camera Head 4K
- MATRIX DS Data Station
- 31" 4K medical LCD monitor
- DiVAS Basic / Patient Management module
- DiVAS Video Documentation module
- DiVAS Photo Documentation module
- XION Equipment Trolley
- Holder for HD camera head and light cable

Description of
> DiVAS Module, page 10 ff
> Hysteroscopes and Sheths, page 12 ff

The EndoGYN System is suitable for use in gynecological ambulance or practice as well as in standard operating rooms or fully integrated operating rooms with picture/video documentation and video routing/streaming.

Besides the obvious financial advantage that it offers, a multi-functional, future-proof platform facilitates predictable investments for expanding the system and using latest technologies. A wide range of equipment levels make sure that EndoGYN can be used taking account individual needs and budgets, without compromising image quality and flexibility.

With this universal system it is possible for the first time, optimal to use all endoscopic and microscopic applications in the OR or ambulance with one and the same device system.

The universal system has been designed both for native sensor resolutions up to 4K (4 x HD) as well as for demanding 3D endoscopic and 3D microscopic applications.

A revolutionary camera technology, developed by XION, forms the basis of the MATRIX PL Spectar, which meets all requirements of modern endoscopy.

XION

MATRIX PL Spectar
The universal camera processor with integrated light source for highest demands

4K
Full HD

3D

PIET

The Spectar Camera Platform provides the features necessary to operate all current and future camera heads, as well as all rigid and flexible video endoscopes. The XION Spectar has been designed both for native sensor resolutions up to 4K (4 x HD) as well as for demanding 3D endoscopic and 3D microscopic applications. Based on decades of experience in endoscopy, this concept offers completely new possibilities, while maintaining the now familiar ease of handling.

- Universal camera processors for 2D and 3D-endoscopy with native sensor resolutions up to 4K
- Excellent image quality by means of innovative, proprietary image processing routines
- Improved tissue differentiation using PIET Image Enhancement
- Minimum image latency
- Consistent and future-proof Spectar Connector for all 2D and 3D camera heads and video endoscopes

- Extremely quiet operation
- XION PowerControl – Central power-on control in the XION trolley
- Extensive device settings via the DiVAS software
- Highest patient safety by means of laser-optical galvanic isolation within the camera processor
- XION safety concept avoids loss of monitor image in the event of a computer crash

Spectar Camera Head 4K

In conjunction with the MATRIX PL Spectar, the high resolution 4K sensor of the Spectar Camera Head provides extremely detailed, razor sharp, bright, lownoise images. The 4 times higher resolution compared to HD, plus the extended colour space, make it possible to detect very fine vessels and tissue structures much more easily – even when enlarged in a zoomed display. This provides greater precision and safety for the surgeon.

- Razor sharp, extremely detailed images
- Higher sensitivity and reduced noise
- Even the finest tissue structures can be reliably identified with the electronic zoom
- Better visibility and ease of use, more precision and safety
- Natural colour reproduction for a wide range of different applications
- Lightweight, compact, ergonomic soft touch design
- Two customizable keys

329 218 001	Spectar Camera Head 4K
320 080 050	Sterile adapter for Spectar Camera Head 4K 329 218 001 and Spectar Camera Head HD Zoom 329 200 001
329 200 001	Spectar Camera Head HD Zoom See description page 5

XION

Spectar Camera Head C-mount for microscopy

HD FLEXIBLE

4K Full HD

- Connection to microscopes
- 2 variants: 4K and HD
- Easy integration
- Extremely compact
- Accurately detailed, sharp images with natural colour rendition
- Spectar Connector

The compact Spectar C-mount Camera Head can be easily mounted on any colposcope and surgical microscope. This ensures highest-quality for video recordings and for co-observation.

329 200 002	Spectar Camera Head HD C-mount
329 216 002	Spectar Camera Head 4K C-mount

Spectar 3D Microscope Camera 4K

4K Full HD

3D

- Easy integration
- Co-observation and recording of image data in 3D and 2D
- Accurately detailed, sharp images in 3D, with natural colour rendition
- Quick and easy switching between 3D microscopy and 3D or 2D endoscopy
- Improved workflow in the operating room
- Great potential for saving time and thus costs
- Spectar Connector

XION's Spectar 3D Microscope Camera enables 3D co-observation of the microscope image on a 3D monitor as well as 3D video recording. It is a useful extension of the MATRIX Spectar System and can be combined with most colposcope and surgical microscope.

The Spectar 3D Microscope Camera empowers users to perform combined 3D microscopy and 3D or 2D endoscopy work, thanks to the rapid-switching feature for changing between endoscopic and microscopic image capture on an image processor used jointly for both methods.

329 220 100	Spectar 3D Microscope Camera 4K, for colposcopes and OR microscopes

XION Trolley

XION's compact and space-saving trolleys offer the highest level of stability, flexibility and variety of equipment options. Due to their modular structure, they can be configured for the widest range of applications, and can subsequently also be adapted to changing requirements again and again..

- Optimal ease of operation provided by the central power control for all devices
- Maximum patient safety provided by the integrated isolation transformer and earth leakage monitor
- The XION Module housing system facilitates direct and space-saving mounting of the devices in the trolley

Monitors 4K, Full HD, 3D

XION provides a variety of high-quality monitors that are approved for medical applications, to always ensure optimal quality for the most diverse areas of application.

330 027 003	27"- Full HD medical LCD monitor
330 031 001	31"- 4K medical LCD monitor
330 026 101	26"- Full HD / 3D medical LCD monitor
330 031 101	31"- 4K / 3D medical monitor

MATRIX DS Data Station – Digital management, evaluation and archiving with DiVAS
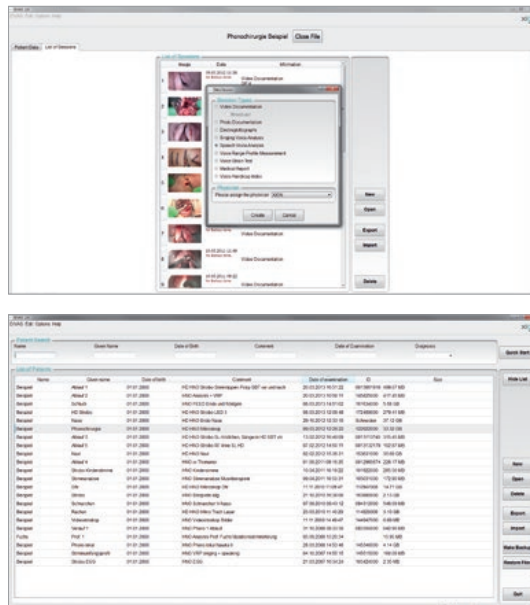

The MATRIX DS Data Station with integrated DiVAS software, which is approved for use in the medical environment, forms the basis for digitally recording, managing and evaluating patient, image, video, audio and measurement data in XION Endoscopy Systems. It is an integral part of the archiving and analysis systems as well as all integrated operating room solutions from XION. An essential requirement for making fast and efficient findings is a powerful software component that digitally records, assesses, documents and archives various diagnostics and therapy data. The modular structure of the DiVAS software facilitates adaptation of the function range to current requirements and leaves open all future extension options. The DiVAS software module Base/Patient Management is always an integral part of the MATRIX DS Data Station.

350 010 883	MATRIX DS, multilingual data station including WIN10-64-bit, DiVAS Base / Patient Management module, 4K / HD grabber

Recording, archiving and analysis with DiVAS

DiVAS Base / Patient Management module

| 350 020 000 | DiVAS Base/Patient Management module |

Essential characteristics

- Physician management: Creating and managing physician data
- Patient management: Viewing patient data, search and sorting functions
- Creating new sessions and managing existing sessions
- Data backup: It is possible to backup either all data or only the new data records. In addition, inadvertently deleted data can be restored.
- Comprehensive data import/export functions, such as individual sessions, complete patient records, export with time masks, exporting data – for example, from multiple sessions – into a medical report, importing medical reports
- Cleaning data carriers: Previously saved data (videos images etc.) can be deleted. However, the information about the session is maintained, and when the session is accessed, all deleted data can be restored with a mouse-click.
- Support for Microsoft Office 2003, 2007, 2010)
- Support for DICOM, HL7 and GDT/BDT interfaces
- The simple and intuitive user interface can be adapted to the individual user needs by means of shortcuts and context menus.
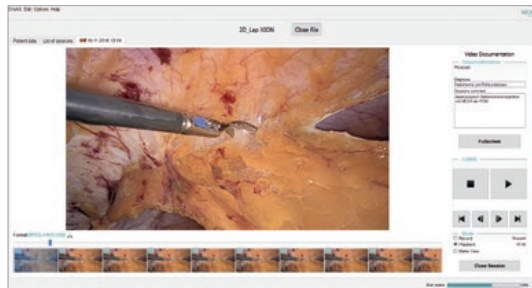
The Base / Patient Management module in conjunction with one further optional module is the essential minimum requirement for using DiVAS. This Base module contains the physician management software and the patient database. The information in the individual patient records includes name, address, date of birth, gender, identification and comment as well as the personal session list, which is used for managing the examinations performed, findings and other patient-specific files. The patient data can be entered manually, or by transfer from an existing database via the HL7, DICOM or GDT interface. The number of possible physician and patient records is not limited by DiVAS. Depending on the DiVAS modules installed, a wide range of examination and evaluation forms can be selected from the session list.

The examination results – in the form of image, video, measurement or audio data, tables or office documents – are saved digitally and can be archived on a regular basis on any storage media, depending on the configuration. Examination data can be exported from sessions and also imported into them, so that they are available for external evaluations, scientific papers and publications.

XION

DiVAS Video Documentation module

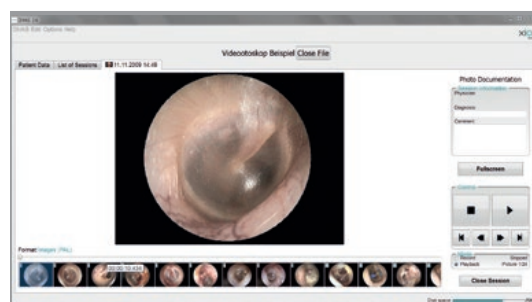| 350 020 010	DiVAS Video Documentation module
350 020 019	DiVAS Full HD/4K Video module, supplement to 350 020 010 Video Documentation module
350 020 025	DiVAS 3D Video module, supplement to 350 020 010 Video Documentation module

While the video image is being displayed live on the monitor, the data can be recorded in background at the resolution that is provided by the camera (e.g. Full HD 1,080p). The video format used is H.264 (MPEG4). The videos can be subsequently viewed individually or in parallel, and the images can be individually analysed, cut, archived or exported.

Essential characteristics

- Support from two video sources at the same time
- Live preview on up to 4 monitors, picture-in-picture functionality, support for dual screen mode with full-screen video on the 2nd monitor
- Video playback, also frame by frame (image by image)
- Loss-free, non-destructive cutting of video recordings. To save memory space, destructive (final) cutting can be performed later in background.
- Print function for individual images (frames)
- Images (frames) can by pulled over into Microsoft Word documents by drag and drop, and the clipboard or external file can be exported.
- Videos can be exported to WMV format for presentations.
- The QUICK-START function enables fast video diagnoses without the need to first create a patient file. Sessions that were created in this way, can subsequently be supplemented with the necessary data or they can be discarded.
- Video data can be exported to the dysphagia, strobokymography, electroglottography and stroboscopy modules for evaluation
- Diagnostic input
- PACS export via DICOM / HL7
- Worklist import from KIS via DICOM / HL7
- Programming of camera head keys and device settings

DiVAS Photo Documentation module

350 020 011	DiVAS Photo Documentation module

An unlimited number of photos can be created during a session. Next, these can be evaluated, compared, deleted, exported, archived or printed individually or in the form of a slideshow.

Essential characteristics

- Photo recording
- Playback, also as a slide show
- Print function for individual images
- Export of individual images as external files into Microsoft Word documents or via the clipboard
- The QUICK-START function enables fast photo diagnoses without the need to first create a patient file. Sessions that were created in this way, can subsequently be supplemented with the necessary data or they can be discarded.
- Diagnostic input
- PACS export via DICOM / HL7

Office Hysteroscope Sheaths for Endoscopes Ø 2.9 mm

Endoscopes Ø 2.9 mm

- Direct visualization of the uterine cavity
- High resolution from center to edge for full image performance
- Optic system is sealed using laser welding

- Sapphires at the distal and proximal end for enhanced durability
- Nitrogen-filled optical system to eliminate interior fogging

115 303 101	Hysteroscope, Ø 2.9 mm, 12°, 300 mm, HD, autoclavable
115 303 103	Hysteroscope, Ø 2.9 mm, 30°, 300 mm, HD, autoclavable

Diagnostic Hysteroscopy

- No anesthesia needed
- Can be done in an office setting
- Examination of the uterine cavity to identify any intrauterine pathologies

- Optional obturator allows an even more gentle insertion
- Atraumatic insertion into the cervical os due to thin diameter sheaths

Diagnostic Single-Flow Sheath

116 200 122	Hysteroscope Single-Flow Sheath, diameter 4 mm, working length 270 mm, rotatable stopcock, for 2.9 mm 30° scope, color code: white
116 200 122FH	Hysteroscope Single-Flow Sheath, diameter 4 mm, working length 288 mm, fixed stopcock, for 2.9 mm 30° scope, color code: white
116 200 102	Hysteroscope Obturator, for use with Single-Flow Sheath 116 200 122, 116 200 122FH and Inner Sheath 116 200 100

Diagnostic Continuous-Flow-Sheath

116 200 100 Hysteroscope Continuous-Flow Inner Sheath, diameter 4 mm, working length 260 mm, for 2.9 mm 30° scope, for use with Outer Sheath 116 200 201, color code: white

116 200 201 Hysteroscope Continuous-Flow Outer Sheath, diameter 5 mm, working length 244 mm, for 2.9 mm 30° scope, for use with inner sheath 116 200 100, color code: white

116 200 102 Hysteroscope Obturator, for use with Single-Flow Sheath 116 200 122, 116 200 122FH and Inner Sheath 116 200 100

Operative Sheaths

- Vagino-cervico hysteroscopy without speculum and tenaculum forceps
- No anesthesia needed
- Minimized intra- and postoperative complications
- Operating sheaths adapted to female anatomy reduce pain

- Diagnostics and treatment under vision within the same appointment
- Usage of 5 Fr. semi-rigid instruments and 5 Fr. bipolar electrodes
- Optional obturator allows an even more gentle insertion

Continuous-Flow Teardrop-Shape Sheaths

116 200 310QL Hysteroscope Inner Sheath, working channel for 5 Fr. operating instruments, Quick-Lock, for 2.9 mm, 30° scope, for use with Outer Sheath 116 200 300QL, color code: white

116 200 300QL Hysteroscope Outer Sheath, diameter 5 mm, working length 192 mm, Quick-Lock, for use with Inner Sheath 116 200 310QL, color code: white

116 200 303 Hysteroscope Obturator, Quick-Lock, for use with Outer Sheath 116 200 300QL, color code: white

116 200 311QL Hysteroscope Inner Sheath, working channel for 5 Fr. operating instruments, Quick-Lock, for 2.9 mm 30° scope, for use with Outer Sheath 116 200 301QL, color code: turquoise

116 200 301QL Hysteroscope Outer Sheath, diameter 5 mm, working length 235 mm, Quick-Lock, for use with Inner Sheath 116 200 311QL, color code: turquoise

116 200 304 Hysteroscope Obturator, Quick-Lock, for use with Outer Sheath 116 200 301QL, color code: turquoise

Operative Compact High-Flow Sheath

116 200 370H   Hysteroscope High-Flow Compact Sheath, diameter 5.5 mm, working length 212 mm, for 2.9 mm 12°/30° scope, with working channel for 5 Fr. operating instruments, working channel with stopcock, color code: white

Hysteroscope Sheaths for Endoscopes Ø 4 mm

Endoscopes Ø 4 mm

115 304 100	Hysteroscope, Ø 4 mm, 12°, 300 mm, HD, autoclavable
115 304 103	Hysteroscope, Ø 4 mm, 30°, 300 mm, HD, autoclavable

Diagnostic Hysteroscopy

Diagnostic Single-Flow Sheath

116 200 120	Hysteroscope Single-Flow Sheath, diameter 5 mm, working length 270 mm, rotatable stopcock, for 4 mm 30° scope, color code: blue
116 200 120FH	Hysteroscope Single-Flow Sheath, diameter 5 mm, working length 270 mm, fixed stopcock, for 4 mm 30° scope, color code: blue
116 200 107	Hysteroscope Obturator, for use with Single-Flow Sheath 116 200 120, 116 200 120FH and Inner Sheath 116 200 105 color code: blue

Diagnostic Continuous-Flow-Sheath

|	
116 200 105	Hysteroscope Continuous-Flow Inner Sheath, diameter 5.4 mm, working length 260 mm, for 4 mm 30° scope, for use with Outer Sheath 116 200 106, color code: blue
116 200 106	Hysteroscope Continuous-Flow Outer Sheath, diameter 6.5 mm, working length 240 mm, for use with inner sheath 116 200 105, color code: blue
116 200 107	Hysteroscope Obturator, for use with Single-Flow Sheath 116 200 120, 116 200 120FH and Inner Sheath 116 200 105 color code: blue

Operative Sheaths

Continuous-Flow Teardrop-Shape Sheaths

116 220 310QL Hysteroscope Inner Sheath, working channel for 5 Fr. operating instruments, Quick-Lock, for 4 mm, 30° scope, for use with Outer Sheath 116 220 300QL, color code: blue

116 220 300QL Hysteroscope Outer Sheath, diameter 6.5 mm, working length 192 mm, Quick-Lock, for use with Inner Sheath 116 220 310QL, color code: blue

5 Fr. Semi-Rigid Operating Instruments

- 5 Fr. Instruments with different jaw parts
- Reusable Instruments dismountable and flushable
- Perfect treatment of minor abnormal conditions, e.g. polyps and fibroids
- Purely mechanical without use of any high frequency

- For use with common operative hysteroscopes with integrated 5 Fr. working channel
- Semi-Rigid Operating Instruments extraordinary useful for a cost effective procedure management

34 cm working lenght
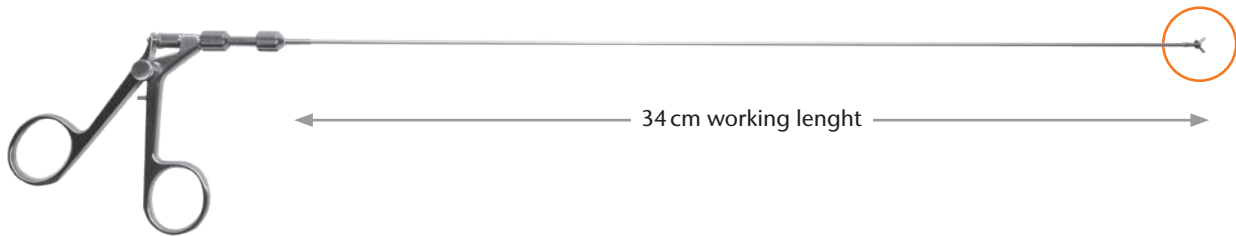
| 116 043 253 | Scissors, semi-rigid, blunt, single-action jaws, dismountable and flushable |

| 116 043 252 | Scissors, semi-rigid, pointed, single-action jaws, dismountable and flushable |

| 116 043 255 | Alligator Forceps, semi-rigid, double-action jaws, dismountable and flushable |

| 116 043 251 | Biopsy Forceps, semi-rigid, oval, double-action jaws, dismountable and flushable |

| 116 043 250 | Cup Biopsy- and Grasping Forceps, semi-rigid, oval, serrated, double-action jaws, dismountable and flushable |

| 116 043 254 | Punch, semi-rigid, single-action jaws, dismountable and flushable |

| 116 043 229 | Cup Biopsy- and Grasping Forceps, semi-rigid, teeth interlock, double-action jaws, dismountable and flushable |

| 116 043 226 | Grasping Forceps Rat Tooth, semi-rigid, 2:1 teeth, double-action jaws, dismountable and flushable |

| 116 043 256 | Cup Biopsy- and Grasping Forceps, semi-rigid, serrated, single-action jaws, dismountable and flushable |

Dissection, Vaporization and Coagulation

- Reusable 5 Fr. high frequency instruments
- For treatment of polyps, small fibroids and septum

- For use with all common operative hysteroscopes with integrated 5 Fr. working channel.

36 cm working lenght
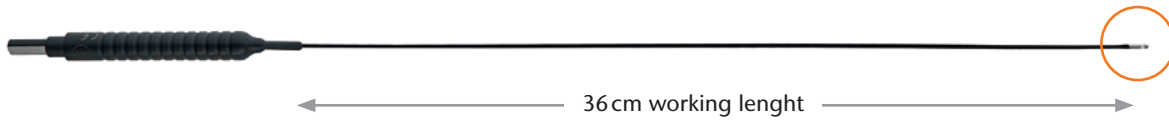
| 116 100 235 | Button Electrode, bipolar, semi-rigid |
| 116 100 237 | Needle Electrode, straight, bipolar, semi-rigid |
| 116 100 236 | Needle Electrode, angulated, bipolar, semi-rigid |

Everything under control:
The safe system with optimum handling

All modules of a XION system are perfectly matched to each other. Devices, optics and instrmments form a unit that adapts to your way of working and supports your workflow. Technology from XION helps you to cope with the increasingly complex daily hospital routine.
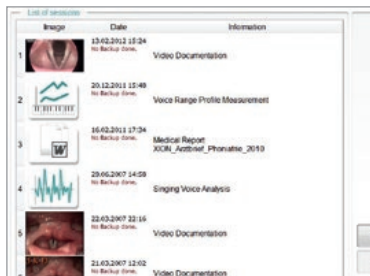
Everything in view:
The information hub for your patient data

DiVAS software ensures valid, comfortable and fast diagnostic findings, their documentation and patient-related data storage. Your diagnostic and treatment data are recorded, analysed and archived. The modular design facilitates adaptation to your current and future needs. Your daily workflow is optimized and thus safer, so that you will have more time for your patients – now and in future.
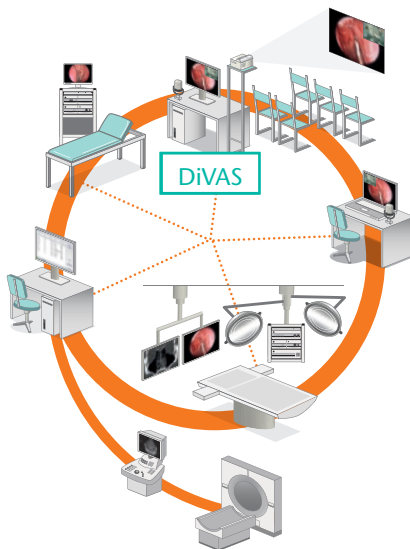
Everything in flow:
The network that makes your hospital more efficient

XION systems can be networked and integrated into the HIS and PACS via standard interfaces (DICOM, HL7). All data are thus automatically, centrally and paperlessly stored. All video, image, audio and other patient data can be accessed from any workstation. Our live video conference system facilitates operating-room communication for second opinions or educational purposes. XION networks thus improve your workflow.

Everything from one source:
Endoscopy systems since 1991

XION develops and manufactures devices, endoscopes and instruments for the minimal invasive diagnostics and therapy. In close cooperation with leading hospitals, XION creates practical and user-friendly system solutions. Well-established and interdisciplinary expertise in the fields of precision mechanics, optics, electronics and software are our basis for setting new standards in endoscopy. All products are manufactured at XION headquarters in Berlin, Germany and sold worldwide through an international network of branch offices and dealers.

XION medical

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MADE IN GERMANY
DEVELOPED • PRODUCED • DESIGNED