

# Industrie Endoskope Remote Visual Inspection

Edition 2014

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Verschaffen Sie sich einen Überblick über die Spezialisten  
der Industrie-Endoskopie

Get yourself an overview of the specialists  
of industrial endoscopy





- 5" Display hochauflösend
- Schwenkbarer Monitor
- Fokussierbare Wechselobjektive
- Brillante Bildqualität
- Ergonomischer Handgriff

- High Power LED Lichtquelle
- Temperaturbeständig bis 140°C
- Exakte Sonden-Steuerung
- Helles und kontrastreiches Display

- 5" high-resolution display
- Rotatable Monitor
- Focusable interchangeable lenses
- Excellent image quality
- Ergonomic handle

- High Power LED light source
- Temperature resistant up to 140°C
- Precise articulation control
- Bright and high-contrast display

# iRis **DVR** 5

## Operating unit

Display size:	5.0" (12.7cm) TFT colour
Display resolution:	VGA (640x480 pixel)
Operating system:	Real-time operating system, with on-screen menu
User interface:	Direct action keys / function keys / arrow keys
Languages:	English, German, Polish, French, Spanish, Italian, Turkish
Video interface:	Composite video-out (BNC)
Power supply, primary:	Rechargeable Li-ion battery
Power supply, secondary:	12V adapter (optional accessory)

## Documentation

Video format:	MPEG4 (.avi) (with time and date stamp)
Image format:	BMP (.bmp) (with time and date stamp)
Storage:	SDHC memory card up to 32GB (FAT32)

## Measurement

Method:	Comparative Measurement
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## Camera control

Image sensor:	High resolution Super HAD CCD image sensor
White balance:	Factory default or user defined
AGC level (gain control):	Adjustable
Gamma:	Adjustable

## Image control

Zoom:	16 step digital zoom
Invert:	Horizontal and vertical image inversion
Brightness:	Adjustable
Contrast:	Adjustable
Colour:	Adjustable
Text annotation:	Built-in text overlay generator

## Illumination

Type:	High-power LED with high transmission fiberoptics
Illumination control:	3 steps
Colour temperature:	approx. 6500k
Average lamp lifetime:	approx. 5000h

## Probe

Diameter:	4.0mm	6.0mm	8.0mm
Working length:	4.9 - 13.1ft (1.5 - 4.0m)	4.9 - 13.1ft (1.5 - 7.5m)	4.9 - 13.1ft (1.5 - 7.5m)
Articulation (bending neck):	4-way / 360° control	4-way / 360° control	4-way / 360° control
Integrated objective lens:	X	-	-
Interchangeable objective lens:	-	X	X
Side view tip adapter:	X (with 60° FOV lens)	X	X
Braid:	Multi-layer tungsten braid on PU jacket		

## Construction

Ergonomics:	± 90° rotatable display unit, alt. ±90° rotatable scope handle
System weight:	1,35Kg
Dimensions:	180mm X 105mm X 45mm
Housing:	Rugged PU, with integrated rubber shock caps

## Operating environment

Tip operating temperature:	-13°F to 176°F (-25°C to +80°C) (284°F/140°C less than 5 Minutes)
System operating temperature:	-13°F to 115°F (-25°C to +46°C)
Storage temperature:	-13°F to 140°F (-25°C to +60°C)
Relative humidity:	95% max. - non condensing
Waterproof:	Probe and distal end up to 14.7 psi (1 bar- 10.2m H <sub>2</sub> O)
Resistance:	Probe and distal end to oils and saline (5%)
Carrying Case	508mm x 373mm x 147mm / 4,5kg

## Manufacturer's Data

Country of Origin	Germany
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## Interchangeable Objective Lenses & SVTA

PROBE	DOV	FOV	DOF	CODE
4.0mm	0°	60°	7-50mm	
4.0mm	0°	60°	4-10mm	SD
4.0mm	0°	90°	15mm-∞	
4.0mm	0°	90°	10-30mm	SD
4.0mm**	90°	60°	5-45mm	SVTA
6.0mm	0°	60°	5mm-∞	BLACK
6.0mm	0°	60°	8mm-∞	YELLOW-B
6.0mm	0°	90°	5mm-∞	RED
6.0mm	0°	120°	3mm-∞	GREEN
6.0mm**	90°	60°	5-15mm	SVTA-CF
6.0mm**	90°	60°	15-50mm	SVTA-FF
8.0mm	0°	28°	25mm-∞	BLUE
8.0mm	0°	60°	5mm-∞	BLACK
8.0mm	0°	60°	8mm-∞	YELLOW-B
8.0mm	0°	90°	8mm-∞	SILVER-B
8.0mm	0°	90°	5mm-∞	RED
8.0mm**	90°	60°	5mm-∞	SVTA

DOV = Direction of View

FOV = Field of View

DOF = Depth of Focus

SVTA = Side View Tip Adapter

\*\* Compatible to FOV60 °

CF = Close Focus

FF = Far Focus

B = Bright objective lens





- Xtrem großes Display
- Xtrem wirtschaftlich
- Xtreme Bildtechnologie
- Xtrem LED on the tip

- Xtrem schnell und leicht einsetzbar
- Xtrem lange Akku-Laufzeiten
- Xtrem transportabel
- Xtrem 90° Seitblickadapter

- Xtremely large display
- Xtremely economical
- Xtreme image technology
- Xtreme LED on the tip

- Xtremely fast and easy to use
- Xtremely long battery duration
- Xtremely transportable
- Xtreme 90° Side View Tip Adapter

# iRis **DVR** X

## Operating unit

Display size:	5.0" (12.7cm) TFT colour
Display resolution:	VGA (640x480 pixel)
Operating system:	Real-time operating system, with on-screen menu
User interface:	Direct action keys / function keys / arrow keys
Languages:	English, German, Polish, French, Spanish, Italian, Turkish
Video interface:	Composite video-out (BNC)
Power supply, primary:	Rechargeable Li-ion battery (charger and battery are provided in delivery set)
Power supply, secondary:	12V adapter (optional accessory)

## Documentation

Video format:	MPEG4 (.avi) (with time and date stamp)
Image format:	BMP (.bmp) (with time and date stamp)
Storage:	SDHC memory card up to 32GB (FAT32) (8GB is provided in delivery set)

## Camera control

Image sensor:	Advanced chip on the tip image sensor
White balance:	Factory default or user defined

## Image control

Zoom:	16 step digital zoom
Invert:	Horizontal and vertical image inversion
Brightness:	Adjustable
Contrast:	Adjustable
Colour:	Adjustable
Text annotation:	Built-in text overlay generator

## Illumination

Type:	High-power LED (4mm with fiber optics / 6mm - LED on the tip)
Illumination control:	3 steps
Colour temperature:	approx. 6500k
Average lamp lifetime:	approx. 5000h

## Probe

Diameter:	4.0mm	6.0mm
Working length:	4.9 - 13.1ft (1.5 - 4.0m)	4.9 - 13.1ft (1.5 - 7.5m)
Articulation (bending neck):	4-way / 360° control	4-way / 360° control
Integrated objective lens:	90° FOV	90°FOV
Side view tip adapter:	–	X
Braid:	Multi-layer tungsten braid on PU jacket	

## Construction

Ergonomics:	± 90° rotatable display unit, alt. ±90° rotatable scope handle
System weight:	1,35Kg
Dimensions:	180mm x 105mm x 45mm
Housing:	Rugged PU, with integrated rubber shock caps

## Operating environment

Tip operating temperature:	-13°F to 176°F (-25°C to +80°C)
System operating temperature:	-13°F to 115°F (-25°C to +46°C)
Storage temperature:	-13°F to 140°F (-25°C to +60°C)
Relative humidity:	95% max. - non condensing
Waterproof:	Probe and distal end up to 14.7 psi (1 bar- 10.2m H <sub>2</sub> O)
Resistance:	Probe and distal end to oils and saline (5%)
Carrying Case	508mm x 373mm x 147mm / 4,5kg

## Manufacturer's Data

Country of Origin	Germany
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# iTool **DVR**



- Dokumentationseinheit
- Hochauflösender Monitor
- Transportabel
- Kombinationsmöglichkeit für alle Endoskope

- Integrierte Lichtquelle
- Systemkompatibel
- Video und Bildaufnahme
- Akku-Betrieb
- Wechselsonden adaptierbar

- Documentation unit
- High-resolution monitor
- Transportable
- Possible to combine with all endoscopes

- Integrated light source
- System compatible
- Video and image recorder, etc.
- Rechargeable battery operation
- Interchangeable video probes

# iToolDVR

## Model

Standard	iSeries video probes iWC Working Channel UV probes cube cam (fibersopes, rigid borescopes) xLED video probes
Digital (w/o light source)	

## Operating Unit

Display Size:	17cm (6.8") TFT VGA Farbdisplay
Display Resolution:	VGA (640x480 Pixel)
Operating System:	Realtime operating System, with On-Screen-Menu
User Interface:	Direct Action Keys, Function-Keys, Arrow-Keys
Languages:	Englisch, French, Spanish, Italian, German
Video interface:	Composite Video-out, Composite Video-in, S-Video-in
Audioanschluss:	3,5mm jack Audio-in / 3,5mm jack Audio-out
Power Supply, primary:	12V via AC-Adapter
Power Supply, secondary:	12V via Battery Belt

## Measurement

Method	Comparative Measurement
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## Documentation

Video Format:	MPEG4 (.avi) (with time and date stamp)
Image Format:	BMP (.bmp) (with time and date stamp)
Storage:	SD-HC-Memory Card up to 32GB (FAT32)

## Camera Control

Camera Control / Exposure:	Integration modes: Automatic, Short, Long, Manuell
White Balance:	factory default or user defined
AGC-Level:	adjustable
Gamma:	adjustable

## Image Control

Zoom:	16 step digital zoom
Invert:	horizontal and vertical Image Inversion
Brightness, Contrast, Colour:	adjustable
Text Annotation:	Built-in text overlay generator

## Illumination

Type:	24Watt Metal Halide gas discharge lamp
Illumination Control:	stepless manual aperture
Colour Temperature:	ca. 6000k
Average	Lifetime: ca. 500h

## Construction

System Weight:	2,25kg (4,96lb) Operating Unit iTool / 9,2kg (20lb) inkl. Sonde & Koffer
Dimensions:	290mm x 190mm x 70mm
Housing:	rugged PU
Frame:	Alloy
Protection Class:	IP53

## Operating Environment

Tip Operating Temperature:	+14°F to 176°F (-10°C to +80°C)
System Operating Temperature:	-13°F to 115°F (-25°C to +45°C)
Storage Temperature:	-13°F to 115°F (-25°C to +45°C)
Relative Humidity:	95% max. - non condensing
Waterproof:	Probe and distal end up to 14,7 psi (1 bar- 10,2 m H <sub>2</sub> O)(not 6mmSVTA)
Hazardous Environments:	Not rated for use in hazardous environments

## Manufacturer's Data

Country of Origin	Germany
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- Perfektes Preis-Leistungs Verhältnis
- Aussagekräftige Bilder durch hochauflösenden Sensor
- HDMI Ausgang
- Verbindung zum iCapture DVR für Bild- und Videodokumentation

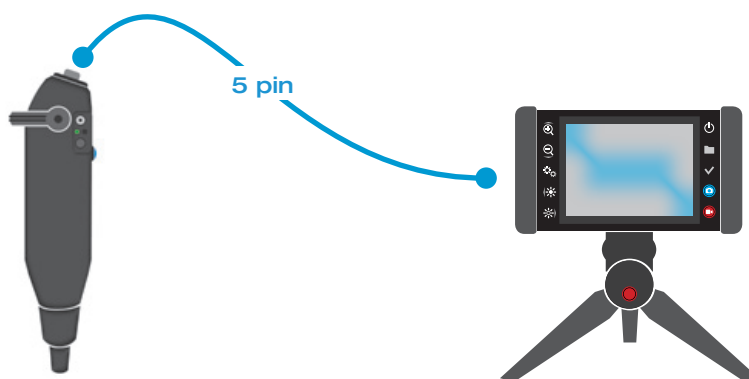
- Multifunktional / Kompatibel
- Energiesparend durch LED Beleuchtung
- Kleiner Durchmesser - 4,0mm
- Blickwinkel 0° oder 90° Seitsicht
- Schneller und ökonomischer Reparaturservice

- Perfect price-performance ratio
- Clear images by high resolution sensor
- HDMI Interface
- Optional iCapture DVR for image and video documentation

- Multifunctional / Compatible
- Energy saving due to LED lighting
- Small diameter - 4.0 mm
- Viewing angle 0 ° or 90 ° Side-View
- Quick and economical repair Service

## Verbindungsmöglichkeiten Connectable to

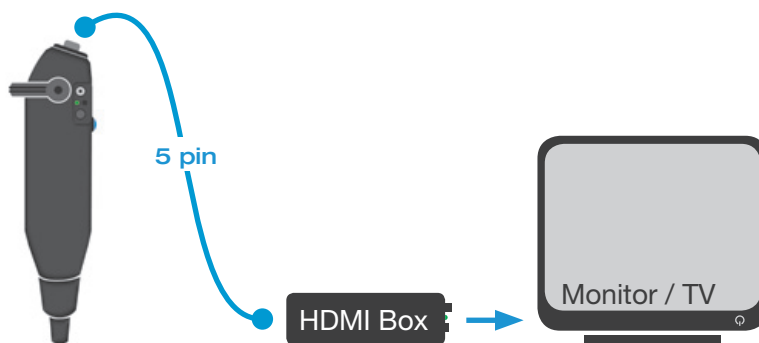
### Variante 1 / variant 1



Kombinieren Sie das XLED durch nur eine Verbindung mit dem iCapture DVR und erhalten eine Dokumentationseinheit

Connect the XLED digital to the iCapture DVR digital and get a complete documentation unit.

### Variante 2 / variant 2



Verbinden Sie das XLED durch Anschluss der HDMI-Box mit Ihrem vorhandenen Monitor/TV.

Connect the XLED digital via HDMI box to an existing monitor.



- Mobile Dokumentationseinheit
- Kompakt und leistungsstark
- Kombinationsmöglichkeit für alle Endoskope

- Hochauflösender Monitor
- Video und Bildaufnahme
- Akku-Betrieb
- Wechselsonden adaptierbar

- Documentation unit
- Compact and versatile
- Possible to combine with all endoscopes

- High-resolution LCD screen
- Image capturing, video recording
- Rechargeable battery operation
- Interchangeable video probes

# Das neue the new iCapture **DVR**

## Model

Standard	iSeries video probes (incl. iWC, UV), cube cam
Digital	xLED video probes

## Operating unit

Display size:	5.0" (12.7cm) TFT colour
Display resolution:	VGA (640x480 pixel)
Operating system:	Real-time operating system, with on-screen menu
User interface:	Direct action keys / function keys / arrow keys
Languages:	English, German, Polish, French, Spanish, Italian, Turkish
Video interface:	Composite video-out (BNC)
Power supply, primary:	Rechargeable Li-ion battery
Power supply, secondary:	12V adapter (optional accessory)

## Documentation

Video format:	MPEG4 (.avi) (with time and date stamp)
Image format:	BMP (.bmp) (with time and date stamp)
Storage:	SDHC memory card up to 32GB (FAT32)

## Measurement

Method	Comparative Measurement
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## Camera control

White balance:	Factory default or user defined
AGC level (gain control):	Adjustable
Gamma:	Adjustable

## Image control

Zoom:	16 step digital zoom
Invert:	Horizontal and vertical image inversion
Brightness:	Adjustable
Contrast:	Adjustable
Colour:	Adjustable
Text annotation:	Built-in text overlay generator

## Construction

Ergonomics:	rotatable display unit
System weight:	1,12kg
Dimensions:	205mm X 180mm X 70mm
Housing:	Rugged PU, with integrated rubber shock caps

## Operating environment

System operating temperature:	-13°F to 115°F (-25°C to +46°C)
Storage temperature:	-13°F to 140°F (-25°C to +60°C)
Relative humidity:	95% max. - non condensing

## Manufacturer's Data

Country of Origin	Germany
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## iSeries Wechselsonden iSeries interchangeable probes



- Exzellente Bildqualität
- Wechsel-Objektive
- Ergonomischer Handgriff
- Exakte Sonden-Steuerung
- Temperaturbeständig bis 140°C
- Variable Video-Schnittstelle
- Ausführung mit Arbeitskanal (iWC)
- UV-Version

- Excellent image quality
- Interchangeable lenses
- Ergonomic handle
- Precise articulation control
- Temperature resistant up to 140°C
- Variable video interface
- Working channel (iWC)
- UV version

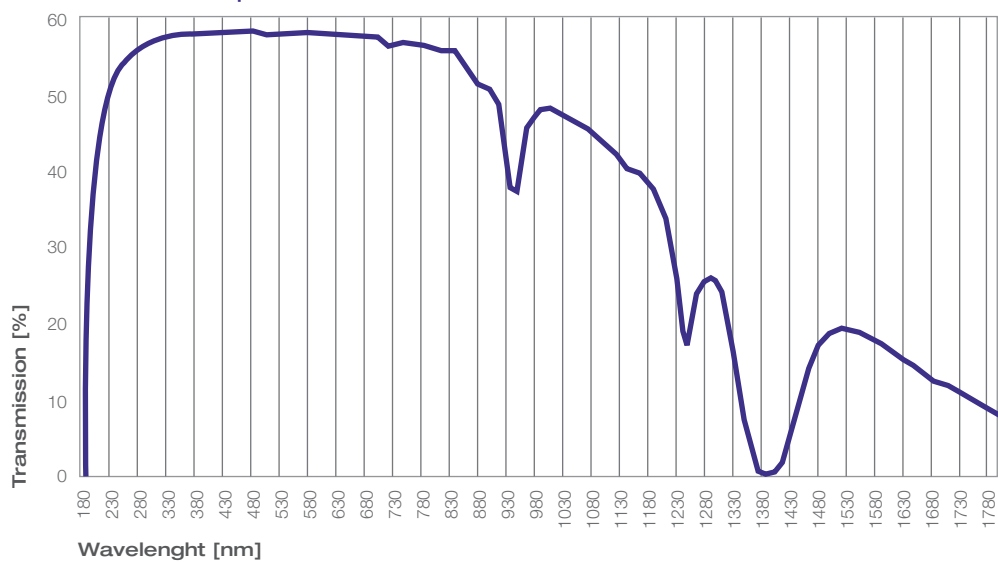


# UV

UV Licht Beleuchtung  
UV Light Illumination

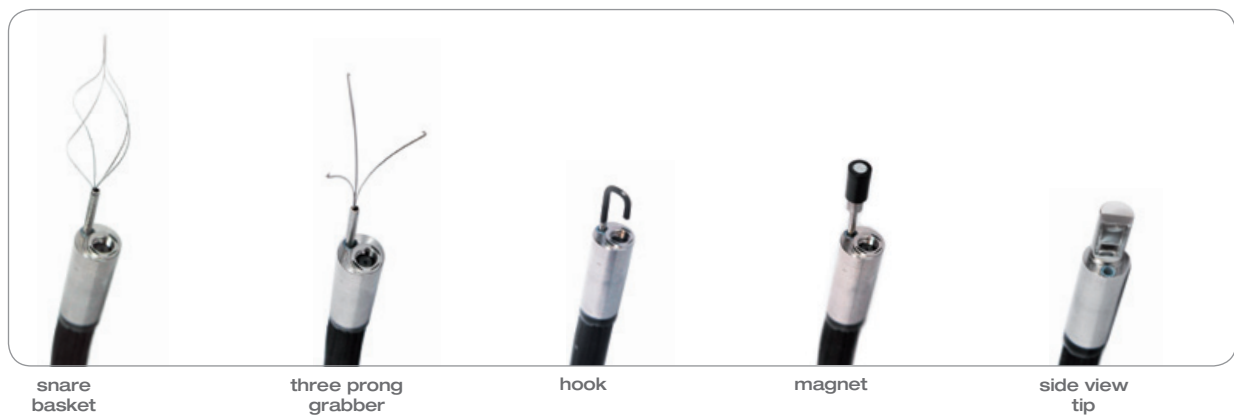


Transmission of quartz fiber



## UV-Option for flexible Videoscopes

Standard Videoscopes are built with glass fibers to optimize the transmission of light in the visible range. Those glass fibers absorbing the UV light that is necessary for fluorescence stimulation. A special instrument is required in order to transmit the ultra violet light and view the fluorescing image with the same device. IT Concepts offers for UV (Ultra Violet) illumination flexible Videoscopes with articulation. The integrated high transmission quartz fibers allow an effective illumination of UV light, starting at 250nm.



- Sehen und Arbeiten
- Exzellente Bildqualität
- Wechsel-Objektive
- Arbeitslängen bis 7,5m

- See and work
- Excellent image quality
- Interchangeable lenses
- Working length up to 7.5m

# iSeries Wechselsonden

## iSeries interchangeable probes

### Video interface

Connect to:	<ul style="list-style-type: none"> <li>• iTool DVR</li> <li>• iCapture DVR</li> <li>• USB via IT Concepts Frame Grabber</li> <li>• Composite video OUT</li> </ul>
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### Interchangeable probes

Diameter:	4,0mm	6,0mm	8,0mm
Working Length:	1,5m - 3,0m	1,5m - 7,5m	1,5m - 15m
Articulation:	4-way / 360° control	4-way / 360° control	none, 2-way, 4-way (360° control)
Integrated Objective Lens:	x	-	-
Interchangeable Objective Lens:	-	x	x
<b>Working channel (iWC)</b>	-	-	x
<b>UV version</b>	-	x	x
Side View Tip Adapter:	o (**only with 60° FOV)	x	x
Braid:	Tungsten Braid on PU-Jacket		

### Operating environment

Tip operating temperature:	-13°F to 176°F (-25°C to +80°C) (284°F/140°C less than 5 Minutes)
System operating temperature:	-13°F to 115°F (-25°C to +46°C)
Storage temperature:	-13°F to 140°F (-25°C to +60°C)
Relative humidity:	95% max. - non condensing
Waterproof:	Probe and distal end up to 14.7 psi (1 bar- 10.2m H <sub>2</sub> O)
Resistance:	Probe and distal end to oils and saline (5%)
Carrying Case	508mm x 373mm x 147mm / 4,5kg

### Interchangeable Objective Lenses & SVTA

PROBE	DOV	FOV	DOF	CODE
4.0mm	0°	60°	7-50mm	
4.0mm	0°	60°	4-10mm	SD
4.0mm	0°	90°	15mm-∞	
4.0mm	0°	90°	10-30mm	SD
4.0mm**	90°	60°	5-45mm	SVTA
6.0mm	0°	60°	5mm-∞	BLACK
6.0mm	0°	60°	8mm-∞	YELLOW-B
6.0mm	0°	90°	5mm-∞	RED
6.0mm	0°	120°	3mm-∞	GREEN
6.0mm**	90°	60°	5-15mm	SVTA-CF
6.0mm**	90°	60°	15-50mm	SVTA-FF
8.0mm	0°	28°	25mm-∞	BLUE
8.0mm	0°	60°	5mm-∞	BLACK
8.0mm	0°	60°	8mm-∞	YELLOW-B
8.0mm	0°	90°	8mm-∞	SILVER-B
8.0mm	0°	90°	5mm-∞	RED
8.0mm**	90°	60°	5mm-∞	SVTA

DOV = Direction of View  
 FOV = Field of View  
 DOF = Depth of Focus  
 SVTA = Side View Tip Adapter

CF = Close Focus  
 FF = Far Focus  
 B = Bright objective lens  
 \*\* Compatible to FOV60 °

### Manufacturer's Data

Country of Origin	Germany
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# Flexible Endoskope

## Flexible endoscopes

### iFlex



- Hochauflösend, flexibel, steuerbar
- Robust im Einsatz
- Optischer Bildleiter  
aus hochflexiblen Glasfasern
- Fokussierbares Okular
- Direktsicht- / Seitblick-Objektiv
- Variable Arbeitslängen
- Vielzählige Sondendurchmesser
- Abwinklung der Sondenspitze
- Durchmesser 2,4mm - 8mm

- High-resolution
- flexible, controllable
- Robust in use
- Optical image guide made  
from highly flexible fibre glass
- Focusable eyepiece
- Direct view / side view lens
- Variable working lengths
- Many different probe diameters
- Angular deflection of the probe tip
- Diameter 2,4mm - 8mm

### microFlex



- Filigran, hochauflösend, flexibel
- Optischer Bildleiter aus  
hochflexiblen Quarzfasern
- Variable Arbeitslängen
- Vielzählige Sondendurchmesser
- Sonderanfertigungen sind  
auf Anfrage möglich
- Durchmesser 0,5mm - 1,8mm

- Elegant, high-resolution, flexible
- Optical imaging guide  
made from silica fibre
- Variable working lengths
- Many different probe diameters
- Special designs possible on request
- Diameter 0,5mm - 1,8mm

# Starre Endoskope

## Rigid endoscopes

### Multi Swing Prism



- Robust, hochpräzise Optik
- Sondendrehung 370°
- Blickrichtung 7° bis 133°
- Blickwinkel 45°
- Variable Arbeitslängen
- Vielzahlige Sondendurchmesser
- Sonderanfertigungen sind auf Anfrage möglich

- Robust, high precision optics
- Special rotation 370°
- Line of vision 7° to 133°
- Angle of vision 45°
- Variable working lengths
- Many different probe diameters
- Special designs possible on request

### Industrial Line



- Hochpräzise, starr, semiflexibel
- Ideal für kleine Hohlräume
- Strapazierfähiges Design
- Variable Arbeitslängen
- Vielzahlige Sondendurchmesser
- Sonderanfertigungen sind auf Anfrage möglich

- High-precision, rigid, semi-flexible
- Ideal for small cavities
- Durable design
- Variable working lengths
- Many different probe diameters
- Special designs possible on request



# Service

## Was bedeutet Service-Fall für Sie?

SIE MÜSSEN IM SERVICE-FALL NUR 2 DINGE TUN:

- Ihr Gerät ist defekt
- 1. Bitte schicken Sie das Gerät mit Fehlerbeschreibung ein**
- Sie erhalten von uns nach spätestens 48 Stunden einen detaillierten Kostenvoranschlag über den Reparatur-Festpreis
- 2. Bitte geben Sie diesen Kostenvoranschlag frei**
- Sie erhalten nach spätestens 15 Werktagen Ihr Gerät versandkostenfrei zurück

Sie können Ihr Gerät trotz Ausfall weiter einplanen!

## What does service mean to you?

IN EVENT OF A SERVICE, YOU HAVE ONLY TO DO 2 THINGS:

- Your device is defective
- 1. Please send us the device**
- At the latest after 48 hours we will provide you with a detailed cost estimate for the lump sum repair price
- 2. Please approve this cost estimate**
- We will send you back the device free of charge after 15 work days at the latest

You can still plan with your device despite the failure!

Kompetenz, Qualität und Service „made in germany“

Competency, quality and service „made in germany“



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