



REMOTE VISUAL INSPECTION

Videoscope Systems

Customers Solution

Videoscopes from 3mm Ø

Flexible Endoscopes from 0.5 mm Ø

Rigid Endoscopes from 1.9 mm Ø

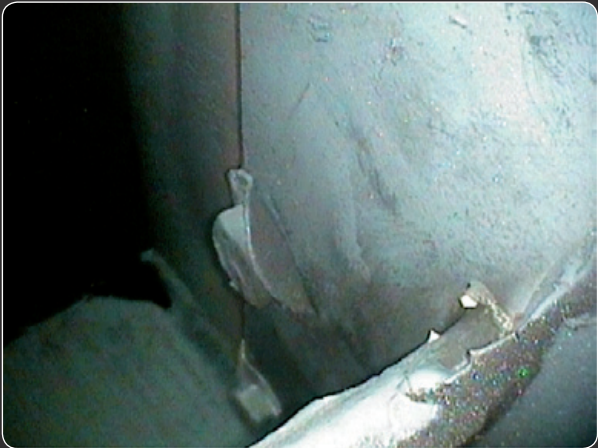
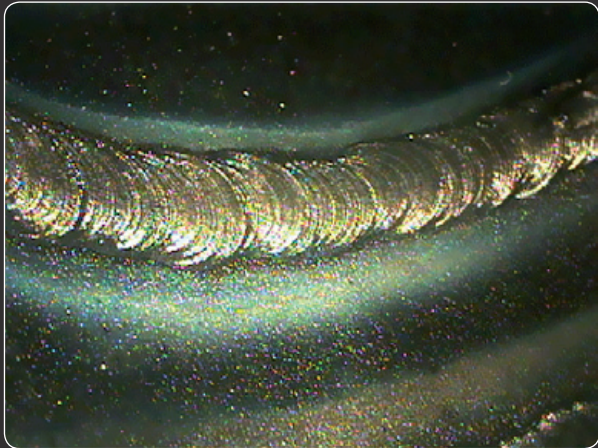
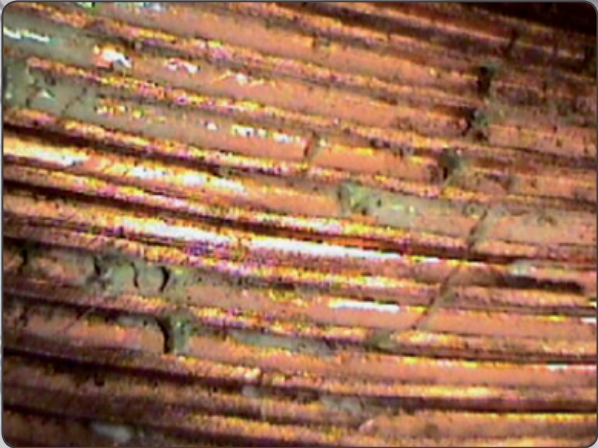
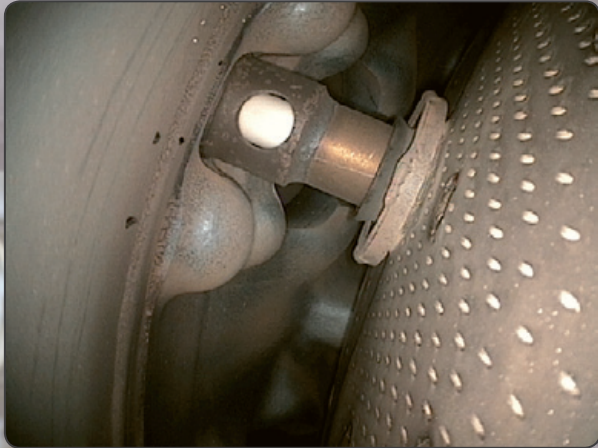
Application Consulting

Special Service Packages

Manufacturing and Service in Germany

Endoscopes

to build your REMOTE VISUAL INSPECTION



iRis DVR 5

Portable Videoscope System



Tactile feedback

Thanks to the non-motorized infinite joystick control, users can navigate the probe responsively with tactile feel and precise tip positioning.

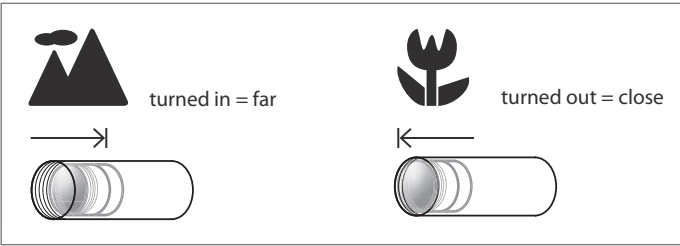
- Bright and high-contrast display
- Excellent image quality
- Rotatable Monitor
- Ergonomic handle
- Precise articulation control
- High Power LED light source
- Temperature resistant up to 140°C

Focusable and interchangeable objectives lens and side view tip adapters

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



SMART-FOCUS
Close focus and far focus



DOV = Direction of view CF = Close focus FOV = Field of view FF = Far focus DOF = Depth of focus B = Bright objective lens SVTA = Side view tip adapter (90°DOV) **Compatible to FOV60°

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
	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 accesorsys)
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)

Image analysis	
Method:	Comparative Measurement
Camera	
Image sensor:	High resolution Super HAD
	CCD image sensor
Camera control:	White balance, AGC level, Gamma, Shutter, Gain Control, Time exposure
Image control	
Functions:	- 16 step digital zoom
	- Horizontal and vertical image inversion
	- Brightness
	- Contrast
	- Colour
Text annotation:	Buil-in text overlay generator

Probe			
Diameter:	4.0mm	6.0mm	8.0mm
Working lenght:	1.5 - 4.0m	1.5 - 7.5 m	1.5 - 7.5 m
Articulation:	4-way / 360°	4-way / 360°	4-way / 360°
Integrated objectiv lens:	X	-	-
Interchangeable objectiv:	-	X	X
Side view tip adapter:	X (60° FOV)	X	X
Braid:	Multi-layer tungsten braid on PU jacket		
Illumination			
Type:	High-power LED with high transmission fiberoptics		
Illumination control:	3 steps		
Colour temperature:	approx. 6500 k.		
Average lamp lifetime:	approx. 5000 h		

Device	
Ergonomics:	± 90° rotatable display, alt. ±90° rotatable handle
Weight:	1.35Kg
Dimensions:	180 mm X 105 mm X 45 mm
Housing:	Rugged PU, with integrated rubber shock caps
Tip operating temperature:	140°C less than 5 Minutes
	-25°C to +80°C
System operating temperature:	-25°C to +46°C
Storage temperature:	-25°C to +60°C
Relative humidity:	95% less than - non condensing
Waterproof:	Probe and distal End up to 1 bar- 10.2m H2O
Resistance:	Probe and distal End to oils and saline (5%)

iRis DVR X

Portable Videoscope System



Tactile feedback

Thanks to the non-motorized infinite joystick control, users can navigate the probe responsively with tactile feel and precise tip positioning.

+ Extrem economical

Large Display

LED-Beleuchtung

Fast and easy to use

Up to 6 hours operation

Portable

90° Side View Tip Adapter

Economical Repair Service



Documentation unit

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

Image analysis

Method:	Comparative Measurement
Camera	
Image sensor:	AIT CMOS Image sensor
Camera control:	White balance, AGC level, Gamma, Shutter, Gain Control, Langzeitbelluminationung
Image control	
Functions:	- 16 steps digital zoom - Horizontal and vertical image inversion - Brightness - Contrast - Colour
Text annotation:	Built-in text overlay generator

Probe

Diameter:	4.0mm	6.0mm
Working lenght:	1.5 - 4.0m	1.5 - 7.5m
Articulation:	4-way / 360°	4-way / 360°
Integrated objectiv:	90° FOV	90°FOV
Side view tip adapter:	–	X
Braid:	Multi-layer tungsten braid on PU jacket	
Illumination		
Type:	High power LED (4mm with high transmission fibreoptic 6mm - LED on the tip)	
Illumination control:	3 steps	
Colour temperature:	approx. 6500k	
Average lamp lifetime:	approx. 5000h	

Construction

Ergonomics:	± 90° rotatable display, alt. ±90° rotatable handle
Weight:	1,35Kg
Dimensions:	180mm x 105mm x 45mm
Housing:	Rugged PU, with integrated rubber shock caps
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% less than - non condensing
Waterproof:	Probe and distal End up to 1 bar- 10.2m H2O
Resistance:	Probe and distal End to oils and saline (5%)

iTool DVR

Scalable

Modular Videoscope System



iTool DVR

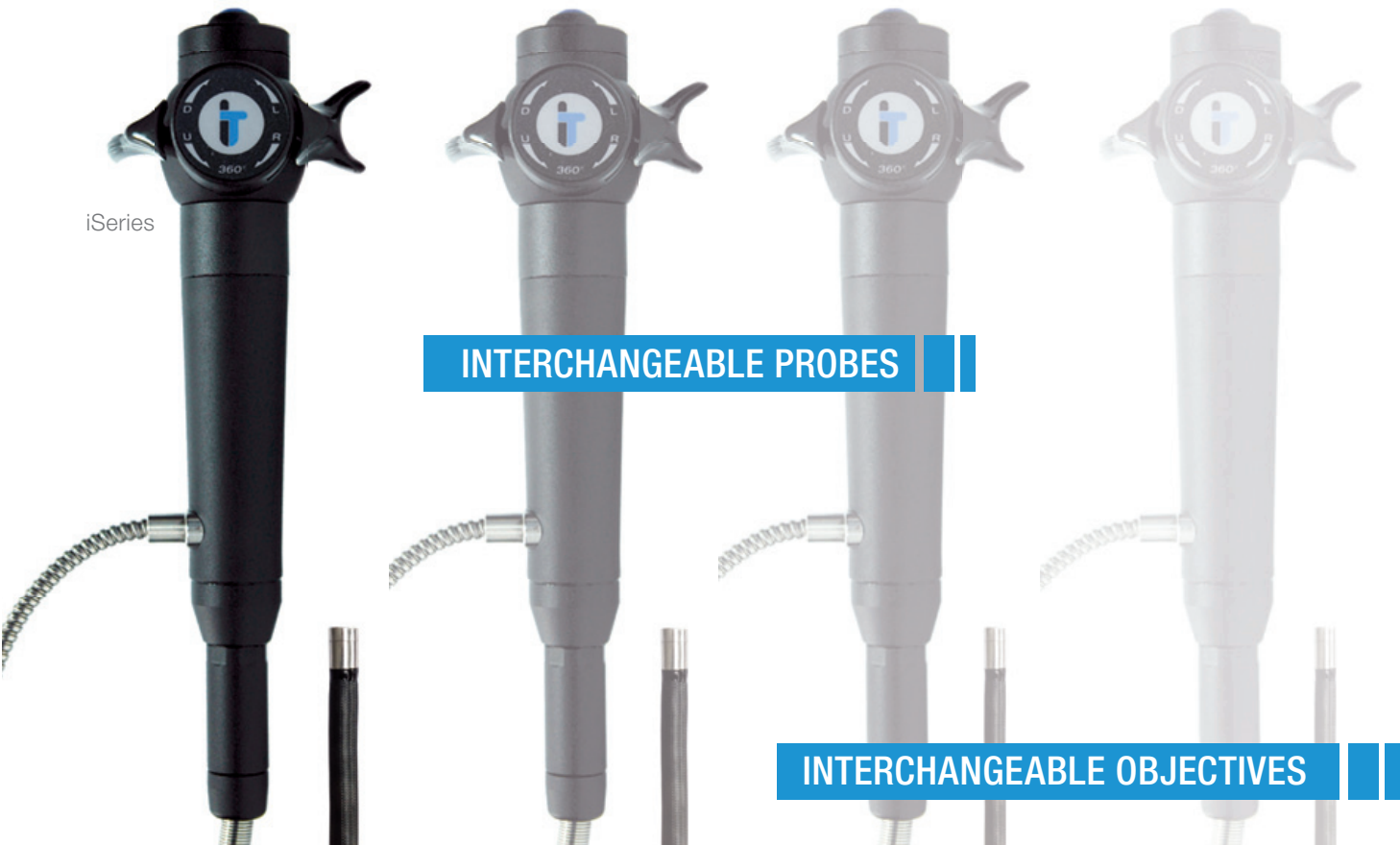
Modular documentation unit

Extrem flexible in use

High resolution monitor

Station or portable

Interchangeable probes and cameras



Model	
Connectable to:	iSeries Videoproben iWC Working Channel UV Proben Cube Cam (Faser- and Starres Endoskop) X-LED Videoproben
Device	
Display size:	7" TFT Colour
Display resolution:	VGA (640x480 Pixel)
Operating system:	Realtime operating system, with on-screen menu Direct action keys / function keys / arrow keys
Language:	English, German, Polish, French, Spanish, Italian, Turkish
Video interface:	Composite Video-out, Composite Video-in, S-Video-in
Audio interface:	3.5mm Audio-in / Audio-out

Power supply, primary:	12V via AC-Adapter
Power supply, secondary:	12V via Batterie Belt
Image analysis	
Method	Comparative Measurement
Storage	
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 settings	
Functions:	White balance, AGC level, Gamma, Shutter, Gain Control

Image control	
Functions:	- 16 steps digital zoom - Horizontal and vertical image inversion - Brightness - Contrast - Colour
Text annotation:	Built-in text overlay generator
Illumination	
Type:	24Watt Metal Halide
Illumination control:	stepless/manual
Colour temperature:	approx. 6000k
Average lamp lifetime:	approx. 500h

Device	
Weight:	2,25kg Device / 9,2kg incl. Probe and Case
Dimensions:	290mm x 190mm x 70mm
Housing:	Rugged PU
Frame:	Alluminium
Tip operating temperature:	14°F to 176°F (-10°C to +80°C)
System operating temperature:	- 13°F to 113°F (-25°C to +45°C)
Storage temperature:	- 13°F to 113°F (-25°C to +45°C)
Relative humidity:	95% less than - non condensing

Interchangeable Probes

→

iTool DVR IWC **WORKING CHANNEL**

Scalable

Modular Videoscope System

iTool DVR **UV** Illumination

Scalable

Modular Videoscope System



Working Channel



iTool DVR



alternative iCapture DVR

Interchangeable Tools



Snare Basket



Three Prong Grabber



Hook



Magnet



90° Side View Tip Adapter



UV Lightsource + UV Endoscope



Video interface			
Connectable to:	• iTool DVR • iCapture DVR • USB Frame Grabber • Composite Video		
Wechsel-Proben			
Diameter:	4.0mm	6.0mm	8.0mm
Working lenght:	1.5m - 4.0m	1.5m - 15m	1.5m - 15m
Articulation:	4-way / 360°	4-way / 360°	4-way / 360°
Integrated objectiv:	x	-	-
Interchangeable Objectives:	-	x	x
Working channel (iWC)	-	-	x
UV version	-	x	x
Side view tip adapter:	o (**60° FOV)	x	x
Braid:	Multi-layer tungsten on PU jacket		
Tip operating temperature:	- 13°F to 176°F (-25°C to +80°C) 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% less than - non condensing		
Waterproof:	Probe and distal End up to 1 bar- 10.2m H2O		
Resistance:	Probe and distal End to oils and saline (5%)		

Interchangeable Objectives and Side View Tip Adapter 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

Probe	DOV	FOV	DOF	CODE
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 (90°DOV)

CF = Close focus

FF = Far focus

B = Bright objective lens

**Compatible to FOV60°



iLED

Scalable

Modular Videoscope System

- Documentation unit
 - 24/7 Operation
 - Interchangeable with all Borescopes
 - High-resolution 5" LCD screen
 - Image capture, video recording to SD Card
 - AC or rechargeable battery DC Operation
 - Interchangeable Videoscopes
- Operable by left/right handed users
 - Excellent image quality
 - Interchangeable lenses
 - Integrated LED
 - Ergonomic handle
 - Precise and tactile articulation control
 - Temperature resistant up to 140°C
- Variable video interface
 - Compact and versatile
 - Water & dust resistant
 - Easy to carry, easy to setup, light in weight
 - Compact case IATA standard

Objective				
PROBE	DOV	FOV	DOF	CODE
4.0mm	0°	60°	7-50mm	
4.0mm	0°	90°	15mm-∞	
4.0mm**	90°	60°	5-45mm	SVTA
Interchangeable Objective				
PROBE	DOV	FOV	DOF	CODE
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
PROBE	DOV	FOV	DOF	CODE
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

Operating unit

Display: 5.0" (12.7cm) TFT colour/nonreflecting

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

Operating time more than 2h

Power supply, secondary: 12V adapter (optional accessory)

Documentation

Saving/recording: Video recording

Direct image capturing / Freeze modus

Video format: MPEG4 (.avi)

(with time and date stamp)

Image format: BMP (.bmp) (with time and date stamp)

Could be converted to JPG at PC

Storage: SDHC memory card up to 32GB (FAT32)

8GB /SDHC in device when delivered

Measurement

Method Comparative Measurement

Camera control

Inegration modes: automatic frame integration

standard / manuell / short / long

Factory default or user defined

White balance: Adjustable

AGC level (gain control): Adjustable

Gamma: Adjustable

Image control

Zoom: 3.5X / 16 step variable

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 temp.: -13°F to 115°F (-25°C to +50°C)

Storage temperature: -13°F to 140°F (-25°C to +60°C)

Protection Class: IP 53

Relative humidity: 95% max. - non condensing

Probe

Sensor image: High Resolution 1/6" Image Sensor

Resolution: total 752 x 582 px / 440.000 pxls

Diameter: 4.0mm 6.0mm 8.0mm

Working length: 4.9 - 13.1ft 4.9 -13.1ft 4.9 - 13.1ft

(1.5 - 4.0 m) (1.5 - 7.5 m) (1.5 - 7.5 m)

Articulation (bending neck): 4-way / 360° 4-way / 360° 4-way / 360°

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

Interchangeable Objective Lens: X

Side View Tip Adapter: X

Braid: Multi-layered tungsten braid

Protection Class: IP 53

Illumination

Tip: High Power LED

Average lamp lifetime: approx. 15.000 h

Operating environment

Tip operating temperature: -13°F to 176°F (-25°C to +80°C)

(284°F/140°C less than 5 Minutes)

Storage temperature: -13°F to 140°F (-25°C to +60°C)

Relative humidity: 95% max. - non condensing

Protection Class: IP 55

Waterproof: Probe and distal end

up to 14.7 psi (1 bar- 10.2m H2O)

Hydrostatic head of 5 meters

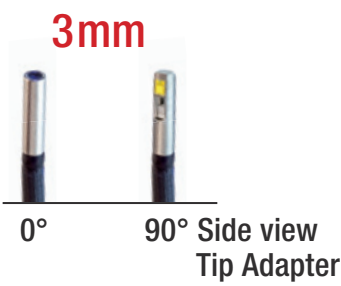
Resistance: Probe and distal end

to oils, saline (5%) and petroleum fluids

XLED

Scalable

Modular Videoscope System



+ Smal diameter - 3.0 and 4.0mm

- Perfect price performance ratio
- Clear images by high resolution sensor
- LED lighting for low power consumptions
- Direction of view 0° direct and 90° Side view
- Faster and more economical repair and service



Documentation unit	
Display size:	5.0" (12.7cm) TFT Colour
Display resolution:	VGA (640x480 pixel)
Operating system:	Realtime operating system, with on-screen menu
	Direct action keys / function keys / arrow keys
Language:	English, German, Polish, French, Spanish, Italian, Turkish
Video interface:	Composite video-out (BNC)
Power supply, primary:	Rechargeable Li-ion Akku
Power supply, secondary:	12V Adapter (optional accessory)
Storage	
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)

Image analysis	
Method:	Comparative Measurement
Camera settings	
Functions:	White balance, AGC level, Gamma, Shutter, Gain Control, Time exposure
Image control	
Functions:	- 16 steps digital zoom - Horizontal and vertical image inversion - Brightness, contrast, colour Built-in text overlay generator
Text annotation:	
Device	
Ergonomics:	rotatable display
Weight:	1.12kg
Dimensions:	205mm x 180mm x 70mm
Housing:	Rugged PU, with integrated rubber shock caps
System operating temperature:	
Storage temperature:	
Relative humidity:	

X-LED Video interface	
Connectable to:	iTool DVR , iCapture DVR, USB Frame Grabber, Composite Video
Camera	
Image sensor:	AIT CMOS Image sensor
Camera control:	Automatically
Probe	
Braid:	Multi-layer tungsten on PU jacket
Tip operating temperature:	-13°F to 176°F (-25°C to +80°C)
System operating temperature:	-13°F to 150°F (-25°C to +46°C)
Storage temperature:	-13°F to 140°F (-25°C to +60°C)
Relative humidity:	95% less than - non condensing
Waterproof:	Probe and distal end up to 1 bar- 10.2m H2O
Resistance:	Probe and distal end to oils and saline (5%)

Probe		
Diameter:	3.0 and 4.0mm	3.0 and 4.0mm
Working lenght:	1.5m	1.5m
Articulation:	2 way	2 way
Articulation L/R:	130°/130°	130°/130°
Integrated objectiv:	90° FOV	90° FOV
Weight:	90° version 280g	0° version 500g
Dimensions:	220 x 40 x 60mm	290 x 50 x 50mm
Illumination		
Type:	DOV 90° side view LED on the tip	DOV 0° LED with fiberoptic
Control	ON/OFF	ON/OFF
Colour temperature:	approx. 6500k	approx. 6500k
Average lamp lifetime:	approx. 500h	approx. 5000h

iFLEX

Flexible Fiberscope

- High resolution

Robust in use

Optical image guide made from highly flexible fibre glass

Focusable eyepiece
- Direct view / side view lens

Variable working lenghts

Many different probe diameters

Angular deflection of the probe tip

Diameter 2.4mm - 8.0mm



microFLEX

Flexible Fibrescope

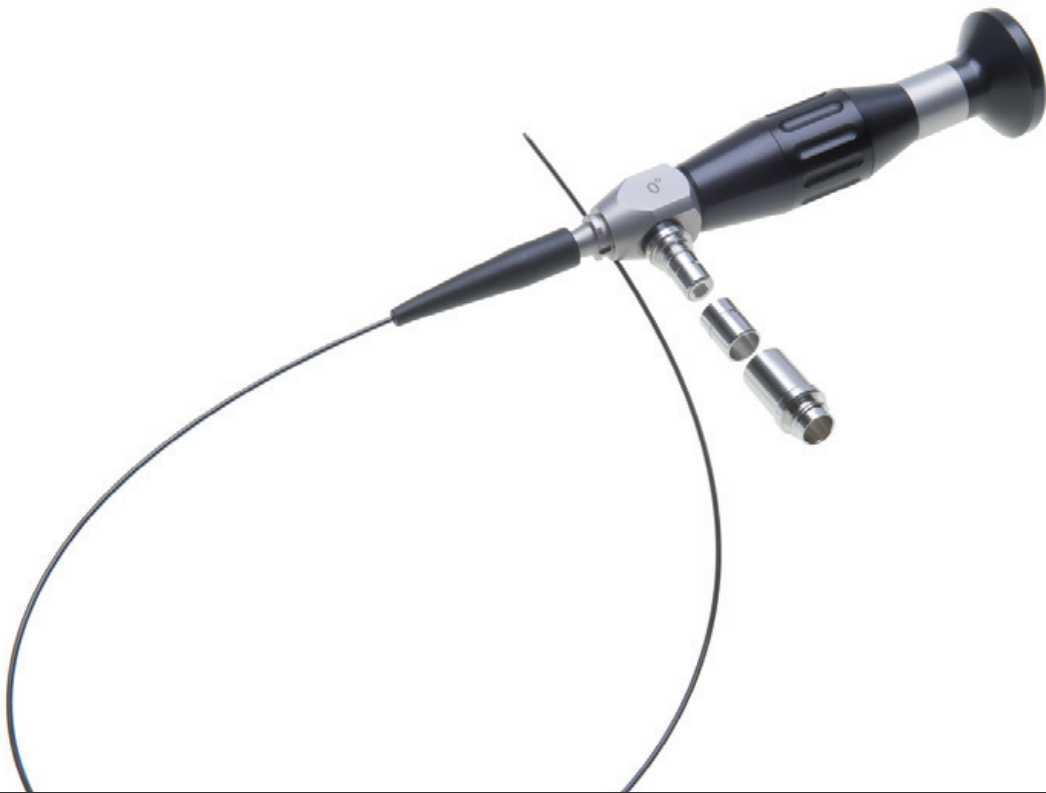
- Elegant, high resolution, flexible

Variable working lenghts

Many different probe diameters

Special designs possible on request
- Optical image guide made from highly flexible fibre glass

Diameter 0.5mm - 1.8mm



Probe Ø 2.4mm				
Lenght	Articulation	DoV	FoV	Pixel
0.4m	2 way ±120° L/R	0°	45°	6000
0.7m	2 way ±120° L/R	0°	45°	6000
1.4m	2 way ±120° L/R	0°	45°	6000
1.3m	2 way ±120° L/R	0°	45°	6000

Probe Ø 3.5mm				
Lenght	Articulation	DoV	FoV	Pixel
0.7m	2 way ±120° L/R	0°	50°	8000
1.0m	2 way ±120° L/R	0°	50°	8000
1.3m	2 way ±120° L/R	0°	50°	8000
1.5m	2 way ±120° L/R	0°	50°	8000

Probe Ø 4.0mm				
Lenght	Articulation	DoV	FoV	Pixel
1.0m	2 way ±120° L/R	0°/90°	50°	11500
1.3m	2 way ±120° L/R	0°/90°	50°	11500
1.5m	2 way ±120° L/R	0°/90°	50°	11500
2.0m	2 way ±120° L/R	0°/90°	50°	11500

Probe Ø 6.0mm					
Lenght	Articulation	DoV	FoV	Pixel	
1.0m	2 way ±120° L/R	0°/90°	60°	12000	
1.5m	2 way ±120° L/R	0°/90°	60°	12000	
2.0m	2 way ±120° L/R	0°/90°	60°	12000	
2.7m	2 way ±120° L/R	0°/90°	60°	12000	
1.0m	4-way ±100° L/R - 160° UP - 130° DW	0°/90°	60°	12000	
1.5m	4-way ±100° L/R - 160° UP - 130° DW	0°/90°	60°	12000	
2.0m	4-way ±100° L/R - 160° UP - 130° DW	0°/90°	60°	12000	
2.7m	4-way ±100° L/R - 160° UP - 130° DW	0°/90°	60°	12000	

Probe Ø 8.0mm				
Lenght	Articulation	DoV	FoV	Pixel
1.0m	4-way ±100° L/R - 160° UP - 130° DW	0°/90°	60°	16000
1.5m	4-way ±100° L/R - 160° UP - 130° DW	0°/90°	60°	16000
2.0m	4-way ±100° L/R - 160° UP - 130° DW	0°/90°	60°	16000
2.7m	4-way ±100° L/R - 160° UP - 130° DW	0°/90°	60°	16000

Braid : Multilayer tungsten

Probe Ø	Working lenght	Bending Radius	DoV	FoV	Pixel	Braid
0.5mm	special designs up to 2000mm	min. 20mm	0°	70°	6000	PU
0.7mm	special designs up to 2000mm	min. 20mm	0°	70°	6000	PU
0.9mm	special designs up to 2000mm	min. 20mm	0°	70°	6000	PU
1.2mm	special designs up to 2000mm	min. 20mm	0°	70°	6000	PU
1.4mm	special designs up to 2000mm	min. 20mm	0°	70°	10000	PU
1.6mm	special designs up to 2000mm	min. 20mm	0°	70°	10000	PU
1.8mm	special designs up to 2000mm	min. 20mm	0°	70°	10000	PU

RIGID ENDOSCOPES

MULTI SWING PRISM

- Robust, high precision optics

Special rotation 370°

Line of vision 7° to 133°

Angle of vision 45°
- Variable working lenghts

Many different probe diameters

Special designs possible on request



INDUSTRIAL LINE

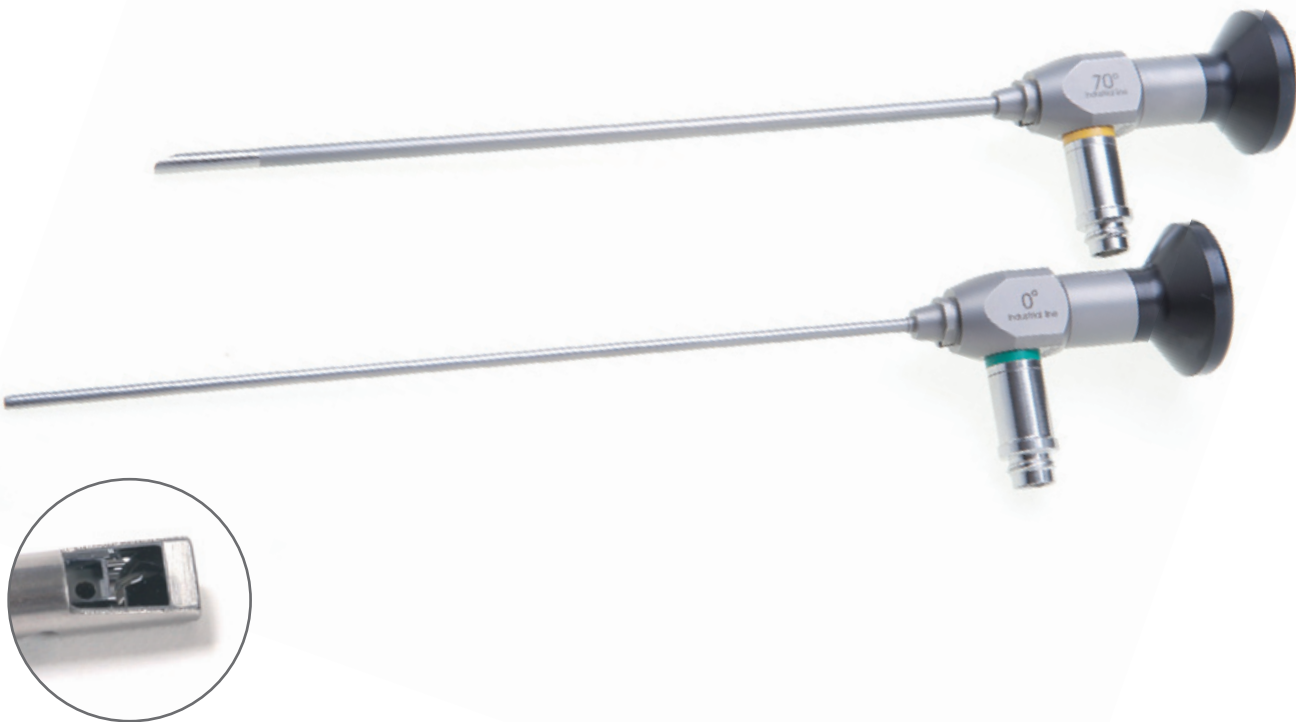
- High precision, rigid, semi flexible

Ideal for small cavities

Durable design
- Variable Working lenghts

Many different probe diameters

Special designs possible on request



Ø 6.0mm			
Lenght	DoV	FoV	rotatable
175mm	-7° to 133°	45°	370°
245mm	-7° to 133°	45°	370°
315mm	-7° to 133°	45°	370°
385mm	-7° to 133°	45°	370°
455mm	-7° to 133°	45°	370°
945mm	-7° to 133°	45°	370°
Ø 8.0mm			
115mm	-7° to 133°	45°	370°
185mm	-7° to 133°	45°	370°
255mm	-7° to 133°	45°	370°
325mm	-7° to 133°	45°	370°
395mm	-7° to 133°	45°	370°
465mm	-7° to 133°	45°	370°
605mm	-7° to 133°	45°	370°

Ø 9.0mm			
Lenght	DoV	FoV	rotatable
205mm	-7° to 133°	45°	370°
305mm	-7° to 133°	45°	370°
405mm	-7° to 133°	45°	370°
505mm	-7° to 133°	45°	370°
605mm	-7° to 133°	45°	370°
705mm	-7° to 133°	45°	370°

Standard			
Ø 2.7mm			
Lenght	DoV	FoV	Type
175mm	0°	80°	Starr
175mm	0°	80°	Semi
175mm	30°	80°	Starr
175mm	30°	80°	Semi
175mm	70°	80°	Starr
Ø 4,0mm			
Lenght	DoV	FoV	Type
175mm	0°	80°	Starr
175mm	0°	80°	Semi
175mm	30°	80°	Starr
175mm	30°	80°	Semi
175mm	45°	80°	Starr
175mm	70°	80°	Starr
302mm	0°	80°	Starr
302mm	0°	80°	Semi
302mm	30°	80°	Starr
302mm	30°	80°	Semi

With mirror tube			
Ø 1.9mm			
Lenght	DoV	FoV	Mirror tube
up to 240mm	0°	45°	90°/2.7mm
Ø 6.0mm			
Lenght	DoV	FoV	Spiegelrohr
245mm	-7° to 133°	45°	370°
315mm	-7° to 133°	45°	370°
385mm	-7° to 133°	45°	370°
455mm	-7° to 133°	45°	370°
945mm	-7° to 133°	45°	370°
Ø 8.0mm			
Lenght	DoV	FoV	Mirror tube
115mm	-7° to 133°	45°	370°
185mm	-7° to 133°	45°	370°
255mm	-7° to 133°	45°	370°
325mm	-7° to 133°	45°	370°
395mm	-7° to 133°	45°	370°
465mm	-7° to 133°	45°	370°
605mm	-7° to 133°	45°	370°

With mirror tube			
Ø 9.0mm			
Lenght	DoV	FoV	Mirror tube
205mm	-7° to 133°	45°	370°
305mm	-7° to 133°	45°	370°
405mm	-7° to 133°	45°	370°
505mm	-7° to 133°	45°	370°
605mm	-7° to 133°	45°	370°
705mm	-7° to 133°	45°	370°

SERVICE ✓

As soon as possible and not longer than 15 working days

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 working days at the latest .

[You can still plan with your device despite the failure!](#)

Special design possible

Ask for your special solution

You are looking for your special solution.

The possible areas of application for the industrial endoscopy and technical endoscopy are practically infinite.

We are certain that we already have the matching solution for your requirements or will be able to develop it.

IT Concepts is developer and manufacturer of:

Cameras | Special Cameras | Video Electronic | Camera Components | Flexible Image Guides

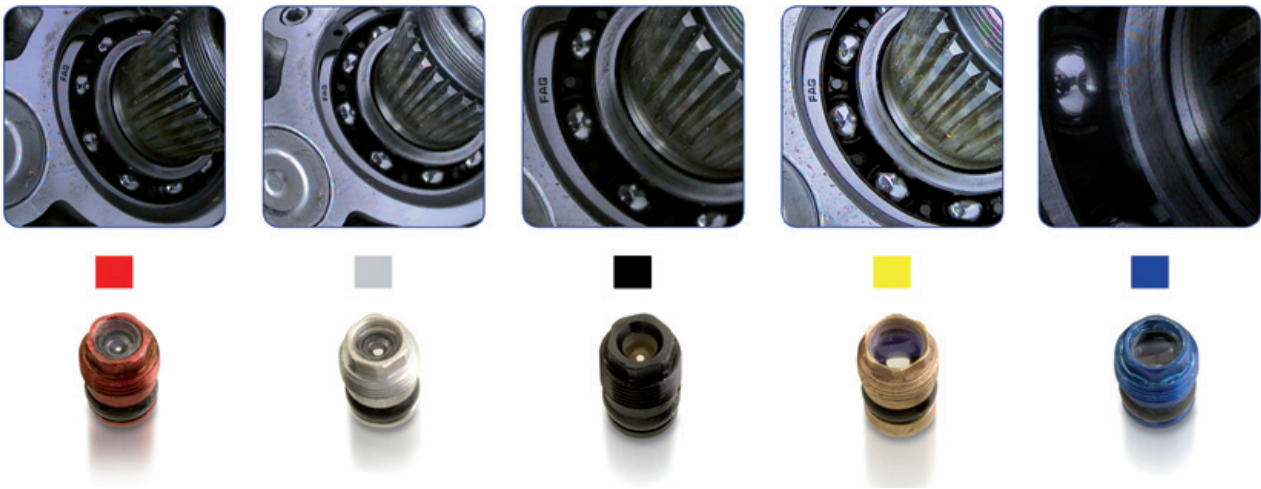
Fiber Optics and optical Components | Precision Mechanics

[Describe your requirements to us!](#)



Interchangeable Objectives

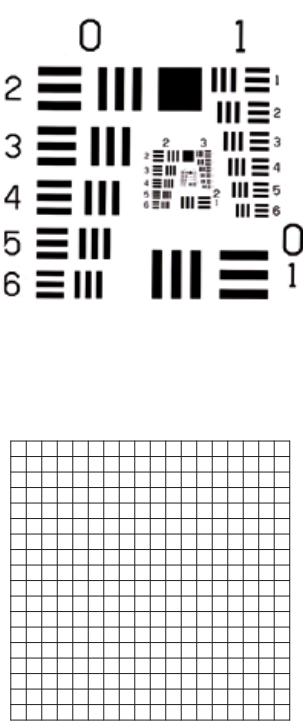
For different applications



SMART-FOCUS Close focus and far focus with only one objective lens.



TEST-Chart



Equipment and Accessories

It's not necessary anymore to buy another objective lens, if a different focal length is needed. In comparison with fix focus lenses, SmartFocus lenses save not only the complicated lens changing process, they also save additional/hidden costs. SmartFocus lenses with different field of view (FOV), f-stops (f-stop) and depth of field (DOF) are available.

Batterie Belt | USB 2.0 Frame Grabber | Inspection Guides | Device Clamp | Lightsources
Cameras | Camera Adapters | Power Supply | Lightguide Cable | Lightguide Adapters
Neck Holder | Cases | Side View Tip Adapter | Objectives | Special Working Tools | Centerizer | ...

MADE IN GERMANY

IT Concepts designs and manufactures worldwide with over 500 highly qualified and motivated employees electronic and optomechanical assembly groups and systems.

The product range extends from individual components for industrial and medical endoscopes over to video endoscopic systems and solutions for Remote Visual Inspection and Security.

For more than 10 years IT Concepts develops and produces all endoscopes „Made in Germany“ at the European headquarters Lahnau near Wetzlar, the City-of-Optics.

The top priority for the entire team in Lahnau is to provide customers with expertise and excellent service.

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