



# More Precision

**ELTROTEC** // Industrial Endoscopes



## ELTROTEC Flexcam

- For rigid and flexible endoscopes
- Completely flexible use due to one-cable connection
- Upgrade to video endoscope

### Description:

The Eltrotec Flexcam provides maximum flexibility for endoscopic applications. The camera is attached together with the C-Mount lens chosen and so can be used on flexible and rigid endoscopes. In the Flexcam, a CCD video chip records the image information. The Eltrotec Flexcam combined with a compatible endoscope result in a powerful video endoscope which can be used in different combinations time and again.



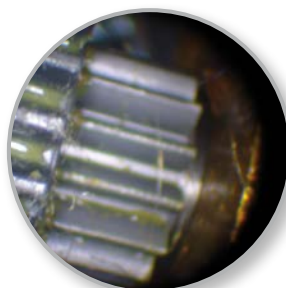
Attachment of camera and lens onto endoscope

Eltrotec Flexcam		
Image sensor	1/3" CCD	1/3" USB CCD
Resolution	752 x 582 pixels	752 x 582 pixels
Horizontal resolution	>460 lines	>460 lines
Image format	-	Individual images can be stored (BMP, JPG)
Video format	-	Recording of videos/movies (AVI)
Software	-	included
Color	Bayer pattern	Bayer pattern
Shutter Speed	Auto (1/50s to 1/10,000s)	Auto (1/50s to 1/10,000s)
Images per second	24	24
White balance	Manual	Automatic
Lens connection	C-Mount	C-Mount
Interface	analog	USB 2.0
Power supply	12 VDC	5V DC via USB interface
System requirements	-	Win. 7 + 8 Pro, 32/64bit, USB2
Dimensions	Ø 24mm, L 94mm	Ø 24mm, L 94mm
Weight	160 g	160 g
Operating temperature	0 °C to +50 °C	0 °C to +50 °C
Storage temperature	-20°C to +60°C	-20°C to +60°C
Connection cable	L 2000 mm	L 2000 mm
Article number	20962182	20962197

### Application examples:



Inspecting screw threads



Gear wheel inspection

## Halogen High Performance Light Sources ELTROTEC Endolight FOT Halogen

- Universal light source
- Fibre-optic adaption
- FOT/VOLPI fibre optic connector

Endolight FOT halogen light sources are the universal solution when it comes to external light sources for endoscopic applications. The high light output and simple operation facilitate optimal inspection results. In the case of adjustable light sources the light intensity is continuously regulated by means of a mechanical iris, without influencing the colour temperature of the light source

FOT Halogen	20	100	150
Power of lamp	20W	100W	150W
Max fibre Ø	5mm	13mm	13mm
Operating life type	~ 100h	1500h	100h
with economy mode	-	> 3000h	~ 210h
Weight	1.4kg	3.3kg	5.9kg
Power supply	230V / 50Hz	110V / 230V / 50Hz	
Light source	6V / 20W	12V / 100W	15V / 150W
Osram HLX type	64250	64637	64634
Colour temperature		3050K	3400K
Dimensions	90x65x150mm	130x190x280mm	180x180x230mm
Accessories		power cable 1.5m	
Special feature		Iris and economy mode	
Article no.	20910382	20910403	20910384
Replacement lamp article no.	21322075	21310404	21320385



FOT 20



FOT 100



FOT 150

## Xenon Light Source Eltrotec Endolight FOT Xenon

- Compact design
- Intensive, white light
- Easy handling

Endolight FOT Xenon	
Output	24W
Light output*	590lm
Operating life type	~ 500h
Weight	0.8kg
Power supply	100 - 240V, 50 - 60Hz
Light source	Xenon
Colour temperature	5000K
Dimensions	147.3 x 88.9 x 68 mm
Operating temperature	0°C to 60°C
Storage temperature	-20°C to 49°C
Accessories	incl. power supply
Article no.	20911638
Replacement lamp article no.	21320903

\*measured by means of a 1800mm optical fibre  
with an active optical fibre adapter diameter: 4mm



FOT Xenon

### Application examples with the use of our special fibre optic cables and systems:

- Endoscopy, microscopy
- Forensics, pharmaceuticals
- Image processing
- Measurement technology
- Industrial / technical lighting
- Automation technology

## High Performance LED Light Source ELTROTEC Endlight FOT LED

- Low heat development
- Very long service life
- Strong white light LED



FOT LED	12
Optical output*	800lm
Optical fibre adapter Ø	15mm
Operating life type	approx. 50,000h
Weight	1.6kg (without power supply)
Power supply	24VDC
Light source	white high power LED
Colour temperature	6500K
Dimensions	100x100x173mm
Operating temperature	-10°C to 40°C
Storage temperature	-25°C to 60°C
Protection class	IP20
Interface	RS232, opt. USB
Accessories	FOT Ø 15mm adapter, power supply unit
Article no.	20912110

\*measured by means of a 1800mm optical fibre with an active fibre optic cable interface diameter: 4mm

The light intensity can be regulated in increments using buttons or digitally via the RS232 interface (optional USB) in steps.

Connection:		
Multiport	Pin assignment	Details
Pin 1	analogue input	0-10V, max. 10.5V
Pin 2	analogue GND	0V
Pin 3	trigger input	low: 0 - 0.8V high: 2.0 - 24V
Pin 4	digital GND	0V
Pin 5	n.c.	no connection
Pin 6	Error output	

## Hand light sources

Accessories	Article no.
Mini Maglite hand light source	20751054
Replacement bulb for Mini Maglite hand light source	20750792
LED hand light source	20751761
SuperNova LED hand light source	20752271
Replacement Charger for SuperNova LED hand light source	20752285
Spare accumulator for SuperNova LED hand light source	20752286



Mini Maglite hand light source

LED hand light source

SuperNova LED hand light source

## High performance sensors made by Micro-Epsilon



Sensors and systems for displacement and position



Sensors and measurement devices for non-contact temperature measurement



2D/3D profile sensors (laser scanner)



Optical micrometers, fibre optic sensors and fibre optics



Colour recognition sensors, LED analyzers and colour online spectrometer



Measurement and inspection systems