



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.



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

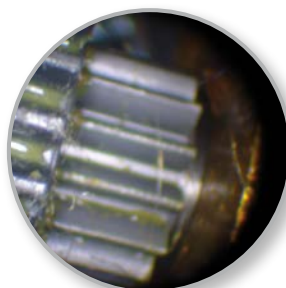


Attachment of camera and lens onto endoscope

Application examples:



Inspecting screw threads



Gear wheel inspection

High performance LED light source Eltrotec Endolight FOT LED

- Robust, long-life and energy-efficient light source
- Quiet fan
- Brightness is continuously adjustable, selected setting is retained after a restart
- Automatic LED switch-off when optical fiber is removed
- Different filters available
- Electronic shutter feature
- Easily configurable settings (brightness, shutter/strobe parameters)
- Control via USB and foot switch

Model	ELTROTEC Endolight FOT LED 3000	ELTROTEC Endolight FOT LED 5000
Article no.	20912166	20912165
Light source	high-power LED (white)	
Light power	max. 65 W	max. 100 W
Brightness	approx. 640 lm with fiber Ø 8x1000 mm	approx. 900 lm with fiber Ø 5x1000 mm
Color temperature	5.800 K ± 5 %	6.200 K ± 5 %
Service life	up to max. 30,000 h*	
Brightness control	continuously up to 0 - 100 %	
Cooling	axial fan	
Display	LCD graphics display for operating display and menu functions	
Optical fiber adapter Ø	15 mm	
Interface	USB port for control from PC; ESD/DC socket, mono jack 2.5 mm for foot switch	
Dimensions (W x D x H)	170 x 205 x 98 mm	
Housing	robust metal housing; vertical positioning is possible, stackable	
Weight	approx. 3800 g (without power supply unit)	approx. 2000 g (without power supply unit)
Supply voltage	100 - 240 V / 50/60 Hz	
Power supply	12 VDC, 5420 mA	12 VDC, 8500 mA
Operating temperature	10 °C to 40 °C, max. 80% relative humidity, max. 2000 m (MASL)	
Storage temperature	-25 °C up to 70 °C, max. 80% relative humidity (non-condensing)	
Protection class	2	
Conformity	CE (EMC Directive 2004/108/EC), RoHS	

*70% of the output brightness



FOT LED 3000 / 5000

ELTROTEC Endolight FOT LED without fan

- Continuous brightness adjustment
- No fan (no vibrations, stability)
- Suitable for heavily polluted air (no air turbulences), low noise requirements and applications requiring absence of vibrations
- ESD socket for external accessories

Model	ELTROTEC Endolight FOT LED without fan
Article no.	20912161
Light source	high-power LED (white)
Light power	22 W
Brightness	approx. 335 lm
Color Temperature	5,500 K
Service life	up to max. 50,000 h*
Brightness control	continuous adjustment with rotary potentiometers
Cooling	fan-less due to convection
Control display	LED
Optical fiber adapter Ø	15 mm
Interface	none
Dimensions (W x D x H)	110 x 180 x 96 mm
Housing	robust metal housing
Weight	approx. 2500 g without power supply unit
Supply voltage	100 - 240 V / 50/60 Hz
Power supply	24 VDC ± 5 %, 1000 mA
Operating temperature	10 °C to 40 °C, max. 80% relative humidity, max. 2000 m (MASL)
Storage temperature	-25 °C to 70 °C, max. 80% relative humidity (non-condensing)
Protection class	3
Conformity	CE (EMC Directive 89/336/EEC), RoHS

*depending on the ambient temperature, room humidity and the intensity set



FOT LED without fan

Hand light sources

- Network-independent operation for mobile applications
- Easily screwed onto the endoscope with ACMI-/Wolf connector

Model	ELTROTEC LED Hand light source	ELTROTEC SuperNova LED Hand light source	ELTROTEC Power LED Hand light source
Article no.	20751761	20752271	20752242
Light source	LED (white)	LED (white)	LED (white)
Brightness	approx. 225 lm	approx. 320 lm	approx. 300 lm
Color temperature	-	-	5700 K
Service life	up to max. 50,000 h	up to max. 50,000 h	up to max. 35,000
Brightness control	continuously adjustable with mechanical aperture	continuously adjustable with mechanical aperture	continuously adjustable with +/- keys
Dimensions	165 x 25 mm (L x Ø)	150 x 34 mm (L x Ø)	81 x 46 x 24 mm (L x W x H)
Housing	robust metal housing with ribbed handle		
Weight	approx. 117 g with batteries	approx. 148 g with batteries	approx. 127 g with batteries
Battery life time	approx. 6 hours (AA batteries)	approx. 2.5 hours	approx. 60 minutes
Battery charging time	-	approx. 3.5 hours	approx. 4 hours
Battery charger	-	90 - 250 VAC / 50 - 60 Hz	100 - 240 V / 50/60 Hz
Supply voltage	-	90 - 250 VAC / 50 - 60 Hz	100 - 240 V / 50/60 Hz
Operating temperature	10 °C to 40 °C, max. 80% relative humidity, max. 2000 m (MASL)		
Storage temperature	-15 °C to 60 °C, max. 80 % relative humidity (non-condensing)		
Protection class	IPX4	IPX4	IPX4
Replacement charging station	-	20752285	20752415
Spare accumulator	-	20752286	20752416

*depending on the light intensity set



LED hand-held light source



SuperNova LED hand light source



Power LED hand light source

Halogen light sources

ELTROTEC Endolight FOT Halogen

- Robust & long life
- Exchangeable light source
- Warm white light with continuously high color rendering index

Model	ELTROTEC Endolight FOT Halogen 20 W	ELTROTEC Endolight FOT Halogen 150 W
Article no.	20910382	20910384
Light source	Halogen 6 V / 20 W	Halogen 15 V / 150 W
Light power	20 W	150 W
Brightness	approx. 480 lm	-
Color Temperature	-	3400 k
Service life	approx. 100 h	approx. 100 h normal mode approx. 210 h economy mode
Brightness control	-	manual, continuous adjustment with iris diaphragm
Cooling	ventilation slots	ventilation slots / ventilator
Optical fiber adapter Ø	15 mm with max. fiber Ø 5 mm	15 mm with max. fiber Ø 13 mm
Dimensions (W x D x H)	90 x 65 x 150 mm	180 x 180 x 230 mm
Housing	robust metal housing	
Weight	approx. 1,400 g (without power cord)	approx. 5,900 g (without power cord)
Supply voltage	230 V / 50/60 Hz	110 V / 230 V / 50 Hz
Power cord	incl. length of 1,500 mm	
Operating temperature	10 °C to 40 °C, max. 80% relative humidity, max. 2000 m (MASL)	
Storage temperature	-25 °C to 60 °C, max. 80% relative humidity (non-condensing)	
Protection class	IP44	
Conformity	CE (EMC Directives EN 61000-6-1: 2007 and EN 61000-6-4: 2007), RoHS	
Spare lamps	21322075	21320385



FOT 20



FOT 150

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