



# More Precision

**Eltrotec** // Industrial Endoscopes



## ELTROTEC Analog Color Cameras

- For all rigid and flexible Eltrotec endoscopes
- Easy image transmission to analog monitor (TV set)
- No PC / software required
- Digitalization via USB converter (20961747) possible

Model	Endo CA1/3
Image sensor	1/3" CCD
Resolution	795 x 596 pixels
Horizontal resolution	>450 lines
Shutter speed	0.25 - 20 ms
Light sensitivity	min 0.02 Lux
White balance	auto / reset
Lens connection	CS-Mount
Interface	FBAS, Y/C
Power supply	12 VDC
Dimensions	43.5 x 44 x 64.5 mm
Weight	160 g
Part number	20961577

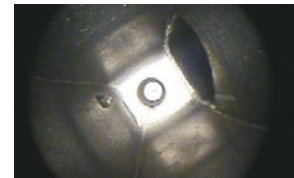
Accessories	Article no.
Power supply for camera	20960915
BNC cable, 2 m	20970369
S-VHS, 2 m	20970957
BNC cable, angled, 2 m	20971877

Lenses, see page 24

USB converter	Article no.
Video to USB2 converter, without cable	20961747
USB cable	20971799



Identifying contamination



Burr inspection



## Monitors

- Visualization of results
- Robust industrial monitors
- High color brilliance

Model	Monitor 10"	Monitor 17"
Resolution (pixels)	800 x 800	1280x1024
Display element	Color TFT/LCD, 480,000 pixels	Color TFT/LCD
Viewing angle	horizontal 110°, vertical 80°	horizontal 160°, vertical 160°
Screen diagonal	10.4", 26.4 cm	17", 43 cm
Typ. brightness	220 cd/m <sup>2</sup>	250 cd/m <sup>2</sup>
Contrast ratio	440:1	1000:1
PC inputs	VGA	VGA
Typ. reaction time	40 ms	5 ms
Video input	VGA, Composite (FBAS)	Y/C, VGA, HDMI, Composite (FBAS)
Power supply	12 VDC, 240 VAC with power supply (supplied)	12 VDC
Housing color	black	anthracite
Housing material	Metals	Aluminum
Weight	3 kg	6 kg
Dimensions (incl. base)	290x247x34.9 mm	416x398x49.5 mm
Certifications	CE, E11	CE
Part number	20961873	20961887



## ELTROTEC USB Cameras

- For all rigid and flexible Eltrotec endoscopes
- Connection to notebook
- Network-independent operation for mobile applications
- Software included

Model	Endo CU1/3" 1.3 MP	Endo CU 1/1.2" 1.3 MP	Endo CU 1/2.3" 18 MP
Part number	20961601	20962283	20962299
Image sensor	1/3" CMOS	1/1.2" CMOS	1/2.3" CMOS
Resolution	1280 x 1024 pixels	1280 x 1024 pixels	4912 x 3684 pixels
Pixel size	3.6 $\mu\text{m}$	4.8 $\mu\text{m}$	1.25 $\mu\text{m}$
Color	yes	yes	yes
Exposure time (min. - max.)	0.037 - 10122 ms	0.035 - 434 ms	0.013 - 998 ms
Images per second	25	166	21
White balance	yes	yes	yes
Lens connection	C-Mount	C-Mount	C-Mount
Interface	USB 2.0	USB 3.0	USB 3.0
Power supply	USB cable	USB cable	USB cable
Dimensions	34 x 32 x 41.3 mm (L x W x D)	29 x 29 x 29 mm (L x W x D)	29 x 29 x 29 mm (L x W x D)
Weight	65 g	52 g	45 g
Operating temperature	0 °C to 55 °C, max. 80% relative humidity	0 °C to 55 °C, max. 80% relative humidity	0 °C to 55 °C, max. 80% relative humidity
Storage temperature	-20 °C to 60 °C, max. 80 % relative humidity, non-condensing	-20 °C to 60 °C, max. 80 % relative humidity, non-condensing	-20 °C to 60 °C, max. 80 % relative humidity, non-condensing
Protection class	IP30	IP30	IP30
USB connection cables	20971602 / L: 3.0 m	20972300 / L: 3.0 m	20972300 / L: 3.0 m
USB connection cable 3 m with angled connector	20971611	20972284	20972284



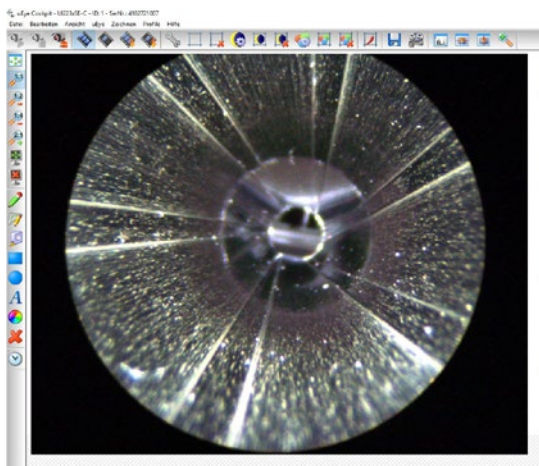
Endo CU1/3" 1.3 MP



Endo CU 1/1.2" 1.3 MP



Endo CU &lt;&lt; 1/2.3" 18 MP



Software 20961601 + 10962299



## Sensors and Systems from Micro-Epsilon



Sensors and systems for displacement, distance and position



Sensors and measurement devices for non-contact temperature measurement



Measuring and inspection systems for metal strips, plastics and rubber



Optical micrometers and fiber optics, measuring and test amplifiers



Color recognition sensors, LED analyzers and inline color spectrometers



Industrial endoscopes, light sources