



# More Precision

**ELTROTEC // Industrial Endoscopes**





- Ø 4.0mm and 6.0mm
- Lengths: 1,500mm to 6,000mm
- Flexible probe tip articulation
- For continuous industrial operation
- Battery-powered

#### Description:

The Top-Line video endoscope enables you to gain new insights into the inner life of machines, plants and cavities without the need to disassemble them.

Due to flexible insertion, articulation and the excellent optics, with the video endoscope you can identify weak points and problems easily and early, enabling you to take preventative measures in a targeted manner.

Illumination is provided by a battery-powered adjustable LED light source with high light intensity.

#### Features:

- Effortless inspection of drill holes in series via monitor
- Easy to use with teach buttons
- No cabling work
- Flexible probe tip with locking brake
- Wide range of optional accessories

#### Complete set:

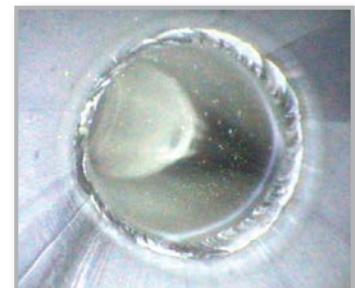
- Top-Line video endoscope
- + LED hand light source
- + Battery charger
- + 2x spare battery for LED hand light source
- + Spare monitor battery
- + Car battery charger cigarette lighter
- + Robust aluminium case



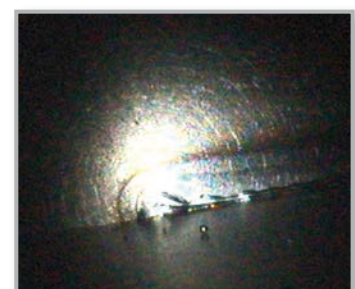
#### Application examples weld seam inspection:



Box



Pipeline

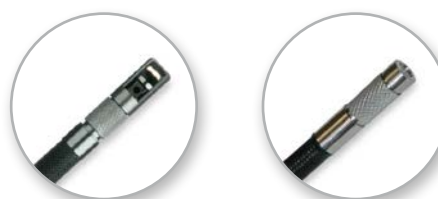


Plant engineering

Model	Top-Line Video Endoscope	
Outer-Ø	4mm	6mm
Length	1.5m / 3m	1.5m / 3m / 6m
Direction of view	0°	
Field of view	70°	
Focal range	15mm - ∞	
Flexible probe tip	2 times 150° up/down; 4 times 150° up/down; right/left	4 times 150° up/down; right/left
Length of probe tip	14mm	18.3mm
Min. bend radius	32mm	45mm
Image sensor	CMOS	
Illumination	mobile adjustable LED light source, Li-Ion accumulator, approx. 2.5 hours operating time	
Display	5" TFT/LCD display; rubber coating for shock absorption	
Interface	USB 1.1 / AV output	
Image storage	SD card (incl.)	
Image resolution	300,000 pixels	
Image format	JPEG (640x480)	
Video format	ASF (640x480) playback with Windows Media Player	
Firmware	text generator; digital zoom 2x, image rotation; image mirroring, connection for external monitor, date/time; language selection; automatic switch-off	
Power supply	5VDC (power supply included)	
Operating temperature	-25°C to +80°C; in water +10°C to +30°C	
Storage temperature	-30°C to +60°C	
Pressure resistance in air	up to 1bar	
Humidity	5 - 95 % relative humidity	
Resistance to liquids	resistant to water up to saline solution 5% and most oils (except for hydraulic fluid)	
Water resistance	Probe IP54 Handle/ Monitor IP53	
Weight	Length 1.5m = 0.9kg Length 3.0m = 1.0kg	Length 1.5m = 0.9kg; Length 3.0m = 1.0kg Length 6.0m = 1.3kg
Protective sheathing	protective tube from stainless braided tungsten with additional PU coating	

Outer-Ø mm	Length mm	Articulation	Article no.
4	1500	2-times	20751776
4	1500	4-times	20752111
4	3000	4-times	20752112
6	1500	4-times	20751756
6	3000	4-times	20751757
6	6000	4-times	20751768

Endoscopes with ø 4mm / 6mm optional with 90° prism head



Prism head 90°

Interchangeable close-focus head

#### Accessories for video endoscope

Prism head 90°		
Outer-Ø mm	Focal range	Article no.
4	12mm - ∞	20752113
6	12mm - ∞	20752104

Interchangeable close-focus head		
Outer-Ø mm	Focal range	Article no.
4	4mm - 22mm	20752170
6	4mm - 22mm	20752171

Rigidizer		
Outer-Ø mm	Ø/length mm	Article no.
4	4.8/432	20752245
6	8.0/432	20752246

Further accessories	Article no.
Stand	20752241
LED hand light source	20752242
Battery charger	20752243
Spare batteries for LED hand light source	20752244
Spare monitor battery	20752136



Rigidizer



LED light source



Stand

## 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