



More Precision

Eltrotec // Industrial Endoscopes





- Ø 0.9 mm to 2.0 mm
- Lengths: 20 mm to 450 mm
- High quality quartz fibers
- Focusable from 1 mm to ∞
- Easily pliable - high break resistance provides robustness
- External focus ring for diopter adjustment

The miniature Eltrotec ME endoscope is ideally suited for the inspection of miniature components and channels in the field of microelectronics and precision engineering.

High-quality quartz fibers are used for image transmission, so the ME can be bent easily without damage. This ensures a long service life especially for smallest diameters in long lengths. The image quality is comparable to that of all conventional lens systems. The protruding knurls present another advantage. One is used to adjust the focus and the other to adjust the focus. A special adaptation to your component is possible.

Objects are illuminated by an external light source from the accessory range. The endoscopes can optionally be connected to a camera system.

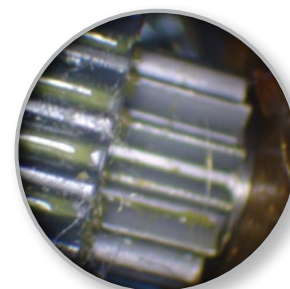
Operating conditions:

- Temperature in air:
Endoscope probe: -20 °C to +60 °C
Complete endoscope: -20 °C to +50 °C
- Pressure resistance in air: up to 5 bar
- Resistance to liquids:
The endoscope probe may be immersed in the following liquids for a short time: water, saline solution (5 %), kerosene, gasoline, diesel, 70 % alcohol
- Humidity: up to 95 % at 40° (non-condensing)

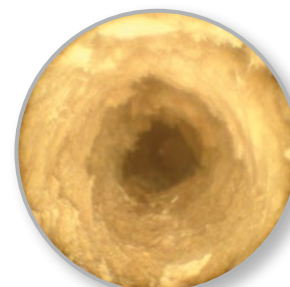
Application examples:



Deposits in pipe



Gear wheel



Deposits in pipe

Type ME					
Outer-Ø mm	Direction of view	Aperture angle	Resolution	Length mm	Article no.
0.9 - 1.3	0°	50°	10,000	20	20531943
				60	20531944
				100	20531945
				140	20531946
				180	20531947
1.4 - 2.0	0°	70°	10,000	20	20531948
				60	20531949
				100	20531950
				140	20531951
				180	20531952
				220	20531953
				260	20531954
				300	20531955
				350	20531956
1.4 - 2.0	0°	60°	30,000	400	20531957
				450	20531958
				20	20530958
				60	20531959
				100	20531960
				140	20531961
				180	20530308
				220	20531962
				260	20531963
1.5 - 2.0	90°	70°	10,000	300	20531964
				350	20531965
				400	20531966
				450	20531967
				20	20531968
				60	20531969
				100	20531970
				140	20531971
				180	20530372
				220	20531973
				260	20531974
				300	20531975
				350	20531976
				400	20531977
				450	20531978

All endoscopes available with outer-Ø in increments of 0.1mm

Accessories		
Article		Article no.
Fiber optics	Length: 1500 mm, in PVC tube with FOT connection	20541980
90° mirror tube, up to ø 1.3 mm	rotatable, outer-ø = endoscope + 0.2 mm	20541979
90° mirror tube, from ø 1.4 mm	rotatable, outer-ø = endoscope + 0.3 mm	20540309

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