



# More Precision

**Eltrotec** // Industrial Endoscopes





- Ø 1.85 mm to 7.2 mm
- Lengths: 80 mm to 940 mm
- Focal range from 2 mm to  $\infty$
- Optimized fiber-optic connector and external focus ring for adjusting of diopter
- Optionally with temperature resistance up to +300 °C

Top-line Pro endoscopes are highly sophisticated endoscopy devices.

A stepped focus ring and an optimized fiber-optic connection ensure the best possible light output. This makes the endoscopes ideally suited for use with a camera.

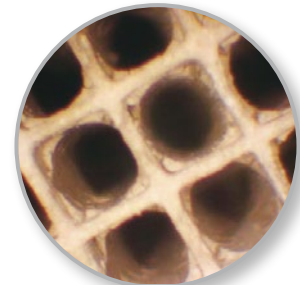
Mirror tubes and robust metal cases are available as accessories. The object is illuminated by an external light source.

The Top-Line Pro endoscopes are optionally available with a temperature resistance of up to +300 °C.

#### Operating conditions:

- Temperature in air:  
Endoscope probe: -20 °C to +120 °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:



Catalytic converter inspection



Bearing inspection



Fiber optic connector

### Top-Line Pro Endoscope

Type Top-Line Pro	Outer-Ø mm	Direction of view	Aperture angle	Length mm	Article no.
ProMicroslim	1.85	0°	40°	80	20752184
				120	20752221
				178	20752222
ProSuperslim	2.4	0°	42°	102	20751409
				185	20751481
	2.8	0°	42°	265	20752224
				350	20752225
				435	20752226
ProSlim	4.2	0°	42°	50	20752205
				180	20752195
				305	20752202
				435	20752230
				560	20752215
ProHardy	6.35	0°	50°	180	20752231
				305	20752232
				435	20752233
				560	20752234
ProSuperHardy	7.2	0°	50°	711	20752194
				940	20752191

### Mirror tubes for Eltrotec Pro Endoscopes

- Direction of view 90°
- Rotatable stainless steel tube - 360°
- Mirror in the form of a prism



Outer-Ø mm	Direction of view	Article no. mirror tube	for Endoscope-Ø mm	Length mm	Article no. endoscope
2.2	90°	20751389	1.85	80	20752184
		20752096		120	20752221
		20752223		178	20752222
2.77	90°	20751392	2.4	102	20751409
		20751393		185	20751481
		20752227		265	20752224
3.8	90°	20752228	2.8	350	20752225
		20752229		435	20752226
		20752236		50	20752205
4.8	90°	20750838	4.2	180	20752195
		20751091		305	20752202
		20751397		435	20752230
		20751765		560	20752215
		20751401		180	20752231
8.0	90°	20751402	6.35	305	20752232
		20751143		435	20752233
		20752235		560	20752234
8.0	90°	20752193	7.2	711	20752194
		20752192		940	20752191

## 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