

RIGID ENDOSCOPES

Endoscopy with the highest image quality



RIGID ENDOSCOPES

Robust, reliable, universally usable



The KARL STORZ NDTec HOPKINS® rod lens system offers high quality image display. These optical systems impress with maximum image sharpness right into the margins combined with the best possible field of view.

Special Features:

- Pressure resistant up to +5 bar (in air)
- Maximum stability under load thanks to double-wall sheath
- Metal protective layers to protect the optical system
- Resistant to oil, fuel and solvents
- Temperature resistant up to 105 °C (and above)
- Unlimited flexibility thanks to 340° sheath rotation (as of diameter 3.8 mm)
- Available in the 1.6 mm to 8 mm range

Special Image Characteristics

- Optimal image brightness
- True-color images
- Maximum image sharpness
- Diopter adjustment/eyepiece focus
- Built-in fiber optic light guide
- Unequaled field of view size

2.8 and 2.9 mm diameter

Direction of view	Model	Diameter	Length	Angle of view
0°	83290 AF	2.9 mm	100 mm	90°
	83390 AF		170 mm	
	83590 AF		300 mm	
30°	83290 BF1	2.8 mm	100 mm	90°
	83390 BF	2.9 mm	170 mm	
70°	83260 CF	2.9 mm	100 mm	55°
	83360 CF		170 mm	
	83560 CF		300 mm	
90°	83270 DF	2.9 mm	100 mm	70°
	83370 DF		170 mm	
	83570 DF		300 mm	

For additional protection, the following protective sheaths are available upon request:

Borescope diameter	2.8/2.9 mm	Outer diameter of protective sheath	3.8 mm
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3.8 mm in diameter

Direction of view	Model	Diameter	Length	Angle of view
0°	84184 AF ⁵	3.8 mm	50 mm	80°
	84384 AF ⁵		170 mm	80°
	84304 AF1 ^{3,5}		170 mm	100°
	84484 AF ⁵		240 mm	80°
	84584 AF ⁵		300 mm	80°
	84504 AF1 ^{3,5}		300 mm	100°
	84684 AF ⁵		360 mm	80°
30°	84384 BF	3.8 mm	150 mm	80°
	84304 BF1		150 mm	100°
	84484 BF		220 mm	80°
	84504 BF		280 mm	100°
	84604 BF		340 mm	100°
70°	84384 CF	3.8 mm	150 mm	80°
	84484 CF		220 mm	
	84584 CF		280 mm	
	84684 CF		340 mm	
90°	84184 DF ⁵	3.8 mm	50 mm	80°
	84384 DF		150 mm	
	84484 DF		220 mm	
	84584 DF		280 mm	
	84684 DF		340 mm	
120°	84384 EF	3.8 mm	150 mm	80°
	84584 EF		280 mm	

For additional protection, the following protective sheaths are available upon request:

Borescope diameter	3.8 mm	Outer diameter of protective sheath	5 mm
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³ Concentric illumination | ⁵ Sheath cannot be rotated

4.3 and 4.5 mm in diameter

Direction of view	Model	Diameter	Length	Angle of view
90°	84506 DF	4.3 mm	490 mm	100°
	84706 DF		650 mm	
0°	84505 AF ⁵	4.5 mm	490 mm	100°
70°	84505 CF	4.5 mm	490 mm	100°
	84705 CF		650 mm	

For additional protection, the following protective sheaths are available upon request:

Borescope diameter	4.3/4.5 mm	Outer diameter of protective sheath	5 mm/5.5 mm
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5.8 mm in diameter

Direction of view	Model	Diameter	Length	Angle of view
90°	85370 DF	5.8 mm	300 mm	67°
	85570 DF		470 mm	

For additional protection, the following protective sheaths are available upon request:

Borescope diameter	5.8 mm	Outer diameter of protective sheath	7 mm
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6.5 mm in diameter

Direction of view	Model	Diameter	Length	Angle of view
0°	86290 AF ⁵	6.5 mm	200 mm	90°
	86390 AF ⁵		320 mm	
	86490 AF ⁵		440 mm	
	86590 AF ⁵		560 mm	
70°	86290 CF	6.5 mm	200 mm	90°
	86390 CF		320mm	
	86490 CF		440 mm	
	86590 CF		560mm	
90°	86290 DF	6.5 mm	200 mm	90°
	86370 DF		320 mm	67°
	86390 DF		320 mm	90°
	86470 DF		440 mm	67°
	86590 DF		560 mm	90°
120°	86370 EF	6.5 mm	320 mm	67°

For additional protection, the following protective sheaths are available upon request:

Borescope diameter	6.5 mm	Outer diameter of protective sheath	8 mm
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⁵ Sheath cannot be rotated

8 mm in diameter

Direction of view	Model	Diameter	Length	Angle of view
0°	88370 AX ^{3,5}	8 mm	300 mm	67°
	88373 AX ^{3,5,8}		300 mm	
	88570 AX ⁵		500 mm	
30°	88370 BX	8 mm	300 mm	67°
70°	88370 CX	8 mm	300 mm	67°
	88390 CF		320 mm	90°
	88570 CX		500 mm	67°
	88590 CF		560 mm	90°
90°	88270 DF	8 mm	200 mm	67°
	88370 DX		300 mm	67°
	88390 DF		320 mm	90°
	88470 DF		440 mm	67°
	88570 DX		500 mm	67°

For additional protection, the following protective sheaths are available upon request:

Borescope diameter	8 mm	Max. length	560 mm	Outer diameter of protective sheath	10 mm
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³ Concentric illumination | ⁵ Sheath cannot be rotated | ⁸ Temperature resistant up to 250 °C

SWING-PRISM BORESCOPIES

Rotation and pivot functions for the best possible field of view



The so-called swing-prism borescope features a swing prism at its tip. Using a control handle, the direction of view can be infinitely adjusted between 0° and 140°. In addition, the sheath can be rotated by 400°. This provides you with the best possible field of view.

Special Features:

- 400° sheath rotation
- One-handed full adjustment of direction of view in 2 dimensions (swing and rotation)
- Index for direction of view (rotation) displayed in the image
- Proven HOPKINS® telescope for high contrast, bright images with sharp margin
- Illumination optimally adapted to pivoting range through optimal light distribution
- Illumination akin to ring light around the objective lens
- Light, ergonomic handle with forward inclination for fatigue-free working

Inspected field	Diameter	Angle of view	Working length / item no.			
			370 mm	470 mm	505 mm	670 mm
-14° - 144°	6 mm	28°	86030 SF			
-5° - 140°	8 mm	50°	88550 SF	88650 SF	88850 SF	

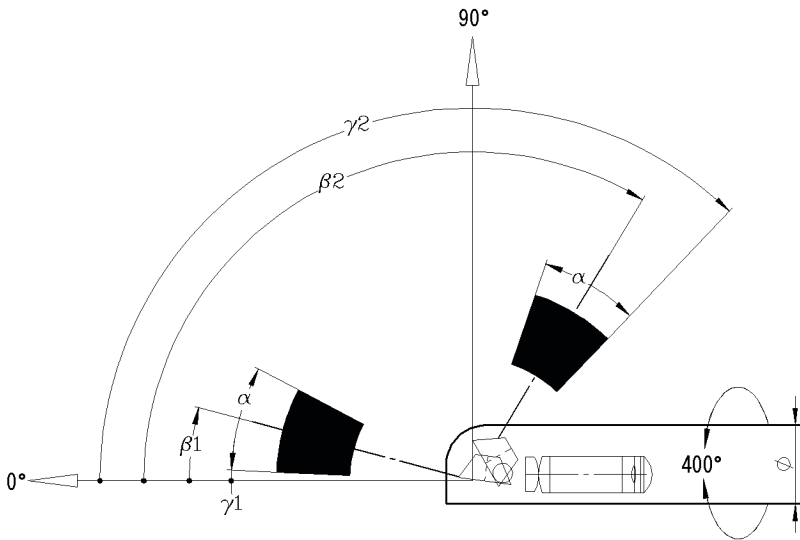
Protective sheaths

Outer diameter of protective sheath	7.5 mm	86030 SQ			
	10 mm	88550 SQ	88650 SQ	88850 SQ	

Robust storage case

80130 D1

Storage Case, for transporting endoscopes of working lengths up to 560 mm,
680 x 415 x 122 mm (w x h x d)



Diameter	Angle of view	Direction of view		Inspected field	
	α	$\beta1$	$\beta2$	$\gamma1$	$\gamma2$
6 mm	28°	0°	130°	-14°	144°
8 mm	50°	20°	115°	-5°	140°

MINIATURE BORESCOPE

Maximum image quality even in tight accesses and very small cavities



Even in miniature devices from outer diameter of only 1mm, the image quality of KARL STORZ NDTec borescopes is unmatched. Brilliant colors, brightly illuminated inspection sites, and sharp images set our telescopes apart.

Special Features:

- Pressure resistant up to +5 bar (in air)
- Metal protective layers to protect the optical system
- Resistant to oil, fuel and solvents

1–2 mm in diameter

Direction of view	Model	Diameter	Length	Angle of view
0°	82060 ^{1,4}	1.0 mm	100 mm	50°
	82062 ^{1,4}	1.0 mm	230 mm	50°
	82070 ¹	1.2 mm	100 mm	70°
	82071 ¹	1.2 mm	137 mm	70°
	82340 AF ⁴	1.6 mm	100 mm	40°
	81390 A ²	1.6 mm	100 mm	90°
	82081 ¹	1.6 mm	170 mm	70°
	81590 A ²	1.6 mm	170 mm	90°
	82360 AF ⁴	1.9 mm	100 mm	40°
	82390 A ²	1.9 mm	100 mm	90°
82590 A ²	1.9 mm	170 mm	90°	
30°	82340 BF	1.6 mm	100 mm	40°
	81390 B ²	1.6 mm	100 mm	90°
	82390 B ²	1.9 mm	100 mm	90°
70°	81390 C ²	1.6 mm	100 mm	90°
	82390 C ²	1.9 mm	100 mm	90°
	82590 C ²	1.9 mm	170 mm	90°

For additional protection, the following protective sheaths are available upon request:

Borescope diameter	1.0 mm	1.2 mm	1.6 mm	1.9 mm
Outer diameter of protective sheath	1.2 mm	2.1 mm	2.4/2.8 mm	2.8 mm

¹ Semirigid version with fiber optic image guide; Temperature resistant up to 100 °C | ² Without eyepiece focus




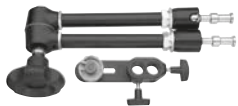



⁴ Mirror tube with 90° direction of view available

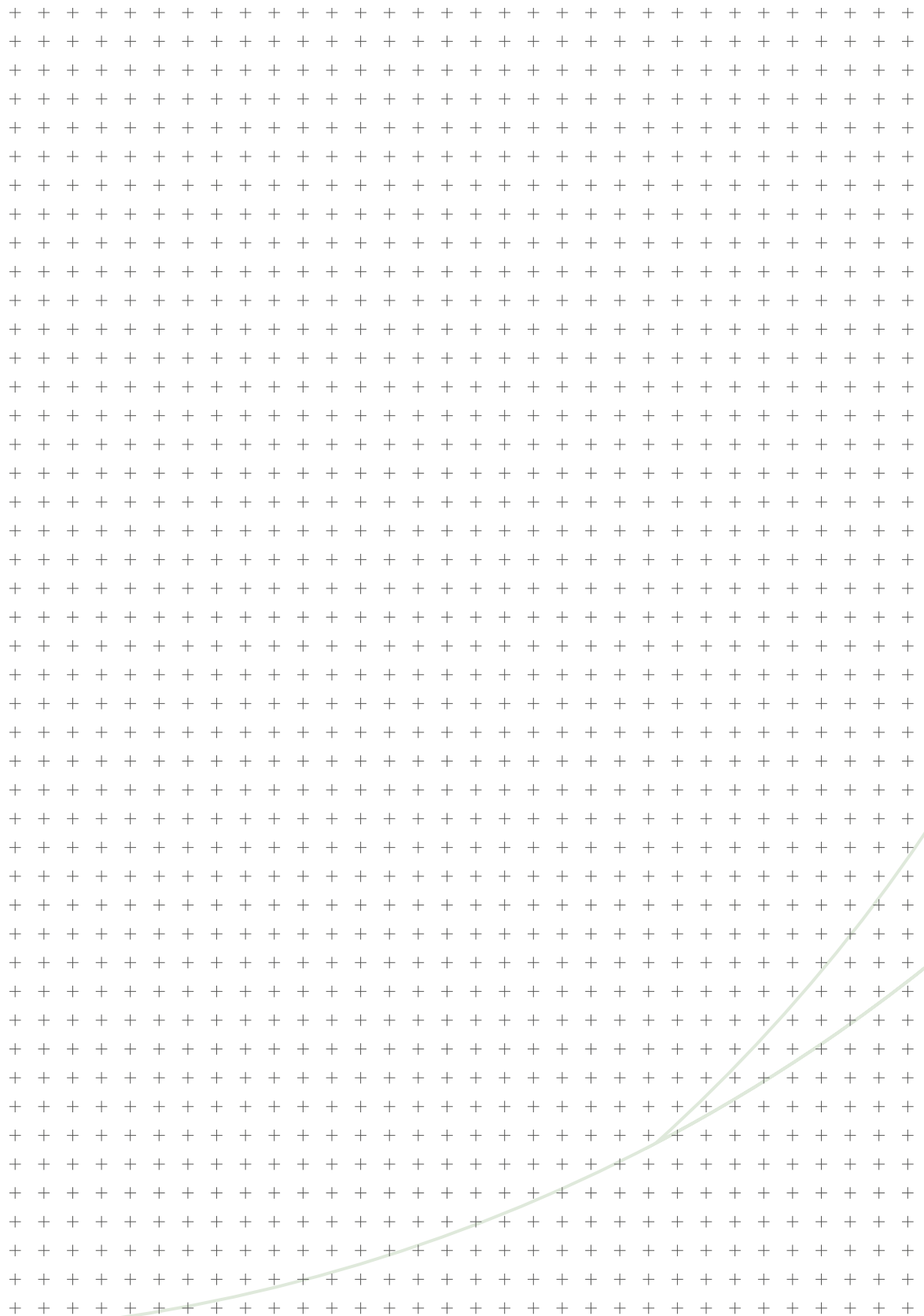
Mirror tubes for miniature borescopes

1.2–2.2 mm in diameter

Direction of view	Mirror tube	Diameter of mirror tube	Compatible borescope	Diameter of borescope	Angle of view
90°	82060 DA	1.2 mm	82060	1.0 mm	45°
	82062 DA	1.2 mm	82062	1.0 mm	
	82340 DA	1.9 mm	82340 AF	1.6 mm	
	82360 DA	2.2 mm	82360 AF	1.9 mm	

ACCESSORIES

Accessories	Order no.	Product name
	80231	Magnification Attachment , fitted onto the eyepiece using a claw coupling. It allows twofold enlargement of the diameter of the endoscopic image and enhances image details if used with a rigid borescope.
	80130 D1	Storage Case , for transporting endoscopes of working lengths up to 560 mm; dimensions: 680 x 415 x 122 mm (w x h x d).
	80229	Rigid Attachment for 90° Image Deflection , length 350 mm, enables endoscopy in confined spaces where it is difficult or impossible to get a direct view through the eyepiece.
	80603	Multipurpose Stand , for stable mounting of endoscopes and cameras, consisting of an articulated stand with a joint in the center and ball joints at both ends, equipped with a mounting plate for holding a camera or endoscope holder. Total length 50 cm approx. The stand can be moved in any direction, and can be locked in any position required using a central fixation screw.
		Endoscope holder
	80601 S3 80601 S4 80601 S5 80601 S6 80601 S8	Endoscope Holder , diameter 2.9 mm Endoscope Holder , diameter 3.8 mm Endoscope Holder , diameter 5.8 mm Endoscope Holder , diameter 6.5 mm Endoscope Holder , diameter 8.0 mm
	80600 H	Tension Rod with Vee Guide , for fixation to a tabletop, pipe, etc. or alternatively a videoscope or flexoscope in combination with Multipurpose Stands 80600 and 80603.
	80603 B	Floor Stand , tripod (folding), for installing a stand on a flat surface, for use with Multipurpose Stand 80603.



At KARL STORZ NDTec GmbH, we are constantly advancing all of our products. For that reason, please understand that changes may be made to the scope of supply, design, equipment, and technology. Therefore, the information, illustrations, and descriptions contained herein cannot be made the basis for any claims whatsoever.

* For an up-to-date overview of the individual product groups, please refer to the product brochures of KARL STORZ NDTec GmbH.



DRIVING NDT SOLUTIONS

KARL STORZ NDTec GmbH
Blumenstraße 8
96194 Walsdorf/Germany
www.karlstorzndtec.com

Tel.: +49 (0)9549 9895 44-0
Fax: +49 (0)9549 9895 44-9
E-Mail: info@ksndtec.com