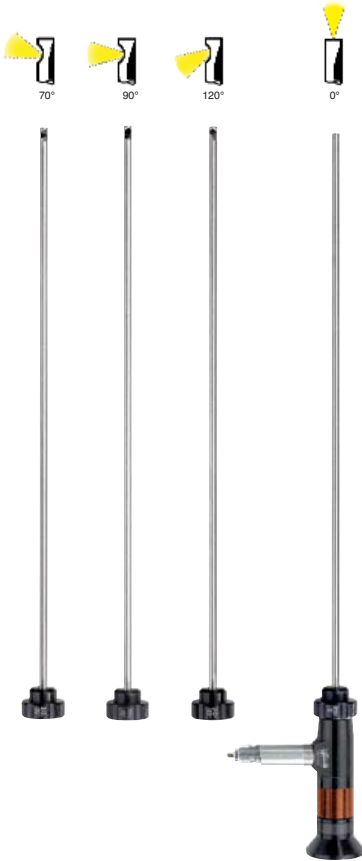




RC4 F.O. Endoscopes Ø 4/4.5 mm



- **4 mm shaft** goes through small openings.
- **Fiber Optic Endoscopes.** No danger of ignition in cavities through bulb implosion. Immersible in approved fluids (water and oil), no lens fogging. Temperature-rated to 120° Celsius. No heat generation at the tip of the instrument.
- **Applications.** All conventional engines including modern diesels with direct injection. Engines, Gearboxes, Differentials, Clutches, Cavities and many other areas.
- **Advantages of using endoscopes.** Rapid diagnosis without dismantling, improved planning for work procedures and personnel. Cost savings through increased efficiency. Immediate estimates of work required. Reduced down-time in workshop. Ordering of spare parts before dismantling.
- **Brilliant images** through the use of specially-sealed, high-resolution achromatic lenses.
- **Sharp, clear images.** Through the infinite and smooth focal control of the eyepiece.
- **Angle of view:** 40°.
- **Complete overview:** 0° viewing direction. Viewing direction with mirror tubes 70°, 90° or 120°. Rotate mirror tubes for a 360° view.
- **View into the smallest openings.** Easy viewing through glow plug, injector and spark plug openings.
- **Compatibility.** Currently-available HEINE battery packs, camera adaptors and angled attachments fit all the new generation of HEINE F.O. Endoscopes. Conventional F.O. Projectors and light guides from other manufacturers can also be connected to the HEINE RC4 F.O. Endoscopes using standard adaptors.



Sharp and clear images through the infinite and smooth focal control of the eyepiece.



Valves:  
Check condition  
without dismantling

RC4 F.O. Endoscopes

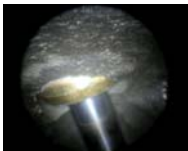
RC4-170 incl. protective tube dia. 4.5 mm, working length 170 mm without light and power sources	T-00.26.409
RC4-310 incl. protective tube dia. 4.5 mm, working length 310 mm with 12 V XHL Xenon Halogen bulb	T-00.26.419
RC4-450 incl. protective tube dia. 4.5 mm, working length 450 mm with 12 V XHL Xenon Halogen bulb	T-00.26.429
Protective tube, dia. 4.5 mm (spare), length 170 mm, 0° view. direction	T-00.26.412
Mirror tube, dia. 4.5 mm, length 170 mm, 70° view. direction	T-00.26.414
Mirror tube, dia. 4.5 mm, length 170 mm, 90° view. direction	T-00.26.415
Mirror tube, dia. 4.5 mm, length 170 mm, 120° view. direction	T-00.26.416
Protective tube, dia. 4.5 mm (spare), length 310 mm, 0° view. direction	T-00.26.422
Mirror tube, dia. 4.5 mm, length 310 mm, 70° view. direction	T-00.26.424
Mirror tube, dia. 4.5 mm, length 310 mm, 90° view. direction	T-00.26.425
Mirror tube, dia. 4.5 mm, length 310 mm, 120° view. direction	T-00.26.426
Protective tube, dia. 4.5 mm (spare), length 450 mm, 0° view. direction	T-00.26.432
Mirror tube, dia. 4.5 mm, length 450 mm, 70° view. direction	T-00.26.434
Mirror tube, dia. 4.5 mm, length 450 mm, 90° view. direction	T-00.26.435
Mirror tube, dia. 4.5 mm, length 450 mm, 120° view. direction	T-00.26.436

RC4 F.O. Endoscopes Ø 4/4.5 mm

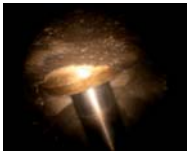
**NEW !**



**LI-ION**



LED illumination



3.5V bulb illumination

**Accessories for RC4 F.O. Endoscopes**

AV-Adaptor incl. 12 V XHL Xenon Halogen bulb	T-05.26.402
AV-Adaptor incl. 3.5 V XHL Xenon Halogen bulb	T-02.26.402
XHL Xenon Halogen spare bulb, 3.5 V	T-02.88.078
XHL Xenon Halogen spare bulb, 12 V	T-05.88.103
LED ScopeLight Endoscope illumination 3.5V	T-08.26.075
Extension cord automatic plug	T-00.99.230
BETA Belt Clip for BETA handles	T-00.99.008
Transport and storage case for RC4 Endoscopes	T-546.00.000

Adaptors for connection to competitors light guides - see page 33.

For further accessories please see page 11.

**Light- and power-sources:**

**3.5V-version:** BETA Battery handle with 3 LR14 dry batteries or rechargeable handles NiMH or Li-ion. AV-adaptor with XHL bulb or LED ScopeLight.

**12V-version:** Connecting cable for cigarette lighter socket (5 m) or Accubox I with brightness control and Accubox II with on/off switch (AV-Adaptor required).

**220V-version:** F.O. projector HK 7000 and F.O. light guide.

For more information on HEINE power sources please see pages 30-33.

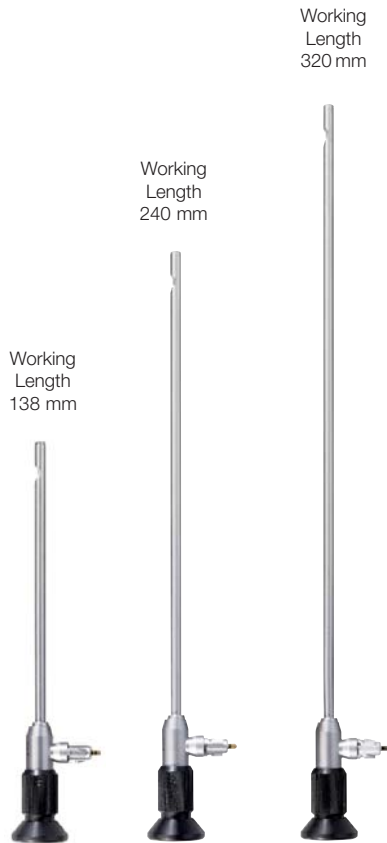
<b>RC4 Endoscope-Sets with LED ScopeLight</b>	3.5V
Set RC4-310 A incl. Protective tube, LED ScopeLight, Mirror tubes 70° and 120°, Angled attachment 120/120, rubber eyepiece, BETA Battery handle, Extension cord automatic plug, transport and storage case	T-554.28.123
Set RC4-450 A incl. Protective tube, LED ScopeLight, Mirror tubes 70° and 120°, Angled attachment 120/120, rubber eyepiece, BETA Battery handle, Extension cord automatic plug, transport and storage case	T-555.28.123

<b>RC4 Endoscope-Sets</b>	12V
Set RC4-310 A, contents: Endoscope including protective tube, AV-adaptor incl. 12V XHL Xenon Halogen spare bulb. Mirror tubes 70° and 120°, angled attachment 120°/120 mm, connecting cable for cigarette light socket, rubber eyepiece. 12 V XHL Xenon Halogen spare bulb, transport and storage case	T-546.50.246
Set RC4-450 A, contents as T-546.50.246, however with Endoscope dia. 4.5/450mm working length, with protective tube and 450 mm mirror tubes 70° und 120°	T-547.50.246





## RW6 Endoscopes Ø 6mm



HEINE Endoscopes simplify assembly work, location of loose components, evaluation of used or damaged vehicles and much more.

- ∴ **6 mm shaft** goes through small openings.
- ∴ **Improved all-round view** with super wide-angle optics (90° angle of view).
- ∴ **Direction of view:** 70°.
- ∴ **Multi-coated achromatic optics** for a brilliant, sharply-focussed image.
- ∴ **Focus eyepiece:** the examiner can work without his glasses (up to ± 2.5 Diop.).
- ∴ **Bright, white XHL Xenon Halogen light** at the tip of the endoscope from a vehicle's own 12V supply or Accubox I.
- ∴ **Fully-portable** and easy to use.
- ∴ **Applications:** You can examine engines, gearboxes and differentials, manifolds, brakes, clutches, engine bays, chassis, cavities and much more.
- ∴ **Advantages:** Rapid diagnosis without dismantling, improved time management and planning. Reduced costs with increased efficiency and less waste time. More efficient parts ordering before dismantling.

RW6 Endoscope	12V
RW6-140 Total length 226 mm, working length 138 mm	<b>T-05.26.301</b>
RW6-240 Total length 328 mm, working length 240 mm	<b>T-05.26.302</b>
RW6-320 Total length 409 mm, working length 320 mm	<b>T-05.26.303</b>
XHL Xenon Halogen spare bulb 12V	<b>T-05.88.095</b>
Transport and storage case case for RW6 Endoscopes	<b>T-542.00.000</b>

For further accessories please see page 11.



Gearbox damage with evidence of wear

### ∴ Light and power sources:

**12V-version:** Connecting cable for cigarette lighter socket (5 m) or Accubox I with brightness control.

For more information on HEINE power sources please see pages 30-33.



RW6 Endoscope Sets	12V
Set RW6-240 A, including: Endoscope, angled attachment 120°/120, connecting cord for cigarette lighter, 12 V XHL Xenon Halogen spare bulb for 6 mm Endoscopes, rubber eyepiece, transport and storage case	<b>T-542.50.246</b>
Set RW6-240, contents as above, however without angled attachment	<b>T-543.50.246</b>
Set RW6-320 A, contents as T-542.50.246, however with 6 x 320 mm Endoscope instead of 6 x 240 mm endoscope	<b>T-544.50.246</b>
Set RW6-320, contents as T-542.50.246, however with 6 x 320 mm endoscope instead of 6 x 240 mm Endoscope, without angled attachment	<b>T-545.50.246</b>

## RWD8-320 Endoscope Ø 8mm

**Robust. Independant from mains power supply. Exceptionally bright.**

Working Length  
320mm



An Endoscope, which was developed specifically for the inspection of large hollow sections. Bright enough to give good illumination at a distance of up to 1m. Up to 2.5 to 4 times as bright as conventional rigid Endoscopes. The large flat image is ideal for photo-documentation with the appropriate photo-adaptor and single reflex camera, camcorder, digital camera or CCD camera.

- ∴ **8 mm shaft** goes through small openings.
- ∴ **High quality achromatic precision optics** for bright, true-colour images.
- ∴ **Focusing eyepiece.**
- ∴ **Direction of view:** 90°.
- ∴ **Angle of view:** 56°.
- ∴ **Focus range** from a few mm to infinity.
- ∴ **Bright, white light** from the 12V XHL Xenon Halogen bulb at the tip of the Endoscope for examination of hollow sections at a distance of up to 1000mm.
- ∴ **Easy bulb change.**
- ∴ **Completely portable** with 12V Accubox II with on/off switch.
- ∴ **Durable inner- and outer-shaft in stainless steel.**
  
- ∴ **Typical applications:** Inspection of buildings, heating and ventilation units, pest control.

<b>RWD8-320 Endoscope</b>	12V
RWD8-320, Direction of view 90°, Angle of view 56°, total length 420mm, working length 320mm	<b>T-05.26.112</b>
XHL Xenon Halogen spare bulb 12V	<b>T-05.88.092</b>
Angled attachment 120°/ 250mm	<b>T-00.26.094</b>

For further accessories please see page 11.

∴ **Light and power sources:**

**12V-version:** Accubox II with on/off switch

For more information on HEINE power sources please see pages 30-33.

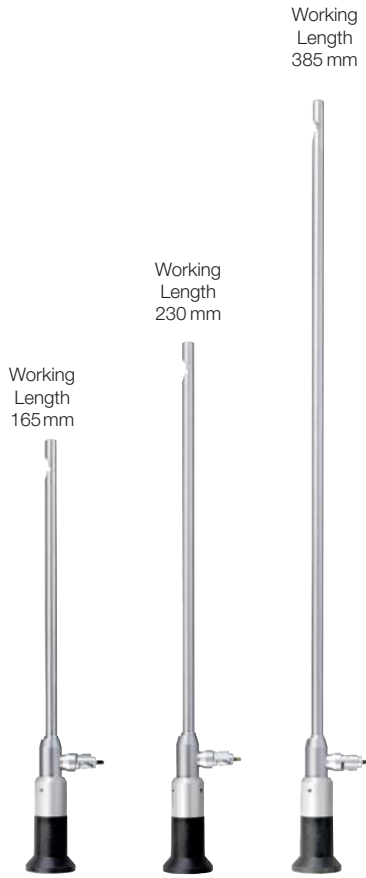


Cable harness  
in elevator shaft



## RW8/RWX8 Endoscopes Ø 8mm

**Robust. Independent from mains power supply. Instantly ready for use.**



Working Length 165 mm

Working Length 230 mm

Working Length 385 mm



Injection pump:  
Check for condition and operation



Endoscope-Set RWX8-230 A



The Endoscope for use everywhere, independent from mains supply.

**Applications areas:** Quality control, heating and sanitary inspection, examination of chimneys, agricultural and construction equipment and other industrial machinery.

- ∴ 8mm shaft goes through small openings.
- ∴ **Precision optics** give a clearly focussed, bright image with true colour transmission.
- ∴ **RW8: Direction of view 90° – field of view 35° - focussable.**
- ∴ **RWX8: Direction of view 70° – super wide-angle - fixed focus.**
- ∴ **Focus range** from a few mm up to infinity.
- ∴ **Bright, white light from the XHL Xenon Halogen bulb** illuminates a large area at a distance of 5 mm to more than 250 mm (3.5 V-version), or distance of 5 mm to more than 450 mm (12 V-version).
- ∴ **Easy bulb change.**
- ∴ **Double-walled stainless steel construction.** Carefully manufactured for reliable functioning and long working life.
- ∴ **Every Techno-Endoscope is available with 3.5 V XHL Xenon Halogen illumination or with 12 V XHL Xenon Halogen illumination.**

RW8 Endoscopes	3.5 V	12 V
RW8-230, Direction of view 90°, field of view 35° (focussable) for high magnification, with bulb, total length 330 mm, working length 230 mm	<b>T-02.26.103</b>	<b>T-05.26.103</b>
same, but RW8-230 with t.l. 485mm, w.l. 385mm	<b>T-02.26.102</b>	<b>T-05.26.102</b>
<b>RWX8 Endoscopes</b>		
RWX8-165, Direction of view 70°, super wide-angle (fixed focus) for large angle of view, with bulb, total length 270 mm, working length 165 mm	<b>T-02.26.123</b>	<b>T-05.26.123</b>
same, but RWX8-230 with t.l. 335mm, w.l. 230mm	<b>T-02.26.124</b>	<b>T-05.26.124</b>
same, but RWX8-385 with t.l. 490mm, w.l. 385mm	<b>T-02.26.125</b>	<b>T-05.26.125</b>
XHL Xenon Halogen spare bulb	<b>T-02.88.075</b>	<b>T-05.88.079</b>
Transport and Storage case for short and medium-length Endoscopes		<b>T-522.00.000</b>
Transport and storage case for long Endoscopes		<b>T-541.00.000</b>

RWX8 Endoscope-Sets		
Set RWX8-230 A including: Endoscope, 12 V XHL Xenon Halogen bulb, angled attachment 120°/120 mm, connecting-cord for cigarette lighter, spare bulb, transport and storage case		<b>T-532.50.246</b>
Set RWX8-230 including: as above, without angled attachment		<b>T-533.50.246</b>

∴ **Advantages:** Very durable, exceptional value-for-money, portable.

- ∴ **Light and power sources:**  
**3.5V-version:** BETA Battery handle with 3 LR14 dry batteries or rechargeable handles NiMH or Li-ion.  
**12V-version:** Connecting cable for cigarette lighter socket (5 m) or Accubox I with brightness control.

For more information on HEINE power sources please see pages 30-33.

Accessories for all rigid HEINE Endoscopes



Angled Attachments

**Angled Attachments**

The angled attachment allows comfortable viewing even in confined spaces. The endoscope may be rotated when fitted to the angled attachment by 360°, the image remains upright and non-inverted.

**Rubber Cap for Spectacle Wearers**

Soft rubber eyepiece avoids stray light. Recommended for spectacle-wearers. Fits all HEINE Endoscopes.

**Camera Adaptor**

Fits between camera and the endoscope eyepiece. Fits all rigid HEINE Endoscopes.

**CCD Camera-Adaptor**

For standard 1/2 inch CCD cameras with C-mount connector. Focal length 35 mm.



Rubber Cap for Spectacle Wearers



Camera Adaptor

CCD Camera-Adaptor

Angled Attachment, 120°/120 mm	T-00.26.090
Angled Attachment, 120°/360 mm	T-00.26.093
Rubber Cap for Spectacle Wearers	T-00.26.175
Camera Adaptor 49 mm	T-00.26.176
Camera Adaptor 52 mm	T-00.26.177
Camera Adaptor 55 mm	T-00.26.178
Adaptor Nikon Coolpix/Endoscope	T-00.26.186
CCD Camera Adaptor F=35 mm	T-00.26.190

**▶ NEW !**



A-Cam camera with processor (available systems: PAL or NTSC, please specify when ordering)

T-00.31.201

**A-Cam Video Camera**

The A-Cam video camera features a 1/2" CCD-Chip and, in conjunction with the C-Mount CCD camera adaptor, provides high-quality video images from HEINE rigid and flexible endoscopes. The A-Cam processor is included with the camera. Both S-VHS and composite signals are provided for input to the monitor.

